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FOLLOW-UP OF COLLEGE OF AGRICULTURE GRADUATES  
AT OKLAHOMA STATE UNIVERSITY: 1979-1983

By

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FOLLOW-UP OF COLLEGE OF AGRICULTURE GRADUATES  
AT OKLAHOMA STATE UNIVERSITY: 1979-1983

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## CHAPTER I

### INTRODUCTION

National trends indicate that jobs of agricultural workers are becoming increasingly specialized and are requiring more skill on the part of the worker. This increased need for skill and specialization by the agricultural worker must be taken into account when planning degree programs and counseling students of agricultural colleges and universities. In most cases agricultural students will need degrees with more specialization or more advanced degrees in order to secure employment in agriculture in the future. According to the U.S. Department of Agriculture publication Graduates of Higher Education in the Food and Agricultural Sciences (1980):

To strengthen the food/agriculture labor force, the United States needs more master's graduates in Agricultural Business and Management, Agricultural Engineering, Animal Sciences, Food Sciences, Natural Resources, Plant Sciences, and Soil Sciences. At the doctoral level, we need more graduates in Agricultural Business and Management, Agricultural Engineering, Animal Sciences, Food Sciences, Forest Engineering, Forest Products Utilization, Plant Sciences, and Soil Sciences. In addition, this study projects shortages of graduates in selected specialties in Veterinary Medicine (p. XIV).

Recent changes in agricultural technology have brought about a decrease in the number of people employed in production agriculture and an increase in the number of people employed in technical support areas of agriculture. The U.S. Department of Agriculture publication Graduates of Higher Education in the Food and Agricultural Sciences

(1980) stated:

Farming, ranching, and other related production industries should afford significant employment opportunities for college graduates in agriculture and natural resources through the mid-1980's. However, it is anticipated that the trend will continue toward larger and more complex production units with adoption of labor-saving technology. If so, somewhat fewer farmers, ranchers, and production workers may be required in the 1980's as compared to the previous decade (p. 77).

These changes in the types of employment available in agriculture have brought about, and will bring about, a need for new skills and knowledge by the agricultural worker. The agricultural worker and the agricultural industry look to the college of agriculture of their land-grant university to provide the training needed to be productive in today's agriculture.

The Land-Grant Act of 1862 established the land-grant colleges of the United States which, as stated by Rulon (1968), provided for

endowment, support, and maintenance of at least one college where the leading objective shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanical arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the literary and practical education of the industrial classes in the several pursuits and professions of life (p. 5).

This Act provided the basis for establishment of agricultural instruction at land-grant universities. The Morrill Act of 1890 supplemented the original act and more specifically specified the duty of the land-grant university by stating, as written by Rulon (1968)

funds would be provided for instruction in agriculture, the mechanical arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their application in the industries of life, and to facilitate for such instruction (p. 8).

This charge to provide instruction in agriculture with special reference to application to the industry is in effect today and must be considered by the land-grant university when planning its instructional program. The land-grant university must be aware of the changing needs of the clientele that it serves if it is to provide proper training for agricultural workers. The university must view itself as a changing social institution in touch with the political, social, and economic structure of society if it is to survive as a source of information and training for today's agriculture. The land-grant university with the obligation to provide adequate and up-to-date information and training in agriculture for the state of Oklahoma is Oklahoma State University (OSU).

The College of Agriculture at OSU has 11 departments offering degrees to students who will be employed in a large variety of occupations. Each department in the College of Agriculture offers a wide variety of course offerings and a multiple of specialty options in its degree programs in an attempt to meet the needs of all its students.

#### Statement of the Problem

Due to the diversity of the College of Agriculture and the changes in the types of agricultural employment, better information is needed as to the areas of employment of College of Agriculture graduates, the skills needed by the graduates in their employment, salaries and benefits received from employment, and changes needed in the instructional program and job placement program to better meet the needs of the graduates.

### Purpose of the Study

The purpose of this study was to gather specific information from former students of the College of Agriculture at Oklahoma State University about their current employment status, skills needed in their employment, and the quality and adequacy of training received from their academic preparation while attending Oklahoma State University.

### Objectives of the Study

In order to accomplish the purpose of this study, the following objectives were formulated:

1. To identify current positions and salary range of College of Agriculture graduates.
2. To determine the degree of relationship of the respondents' Bachelor of Science degree and their area of employment since receiving the degree.
3. To determine the adequacy of training, counseling, and placement services received by College of Agriculture graduates, as perceived by past College of Agriculture graduates.
4. To determine the adequacy of instructional facilities and equipment, as perceived by past College of Agriculture graduates, used in the educational training of College of Agriculture graduates.
5. To determine the degree of influence selected factors and people had on the respondents' decisions to earn a degree in agriculture at OSU.

### Scope of the Study

This study included 1,525 College of Agriculture Bachelor of

Science degree graduates of Oklahoma State University for the years of 1979 through 1983. Those students enrolled in College of Agriculture courses but not designated as agriculture majors were not considered.

#### Limitations of the Study

The respondents are all Bachelor of Science degree graduates of the College of Agriculture at OSU. Conclusions drawn are limited to that population. However, the investigator feels that useful information may be implied to other institutions having similar programs.

Only graduates who were United States residents were included in the follow-up study. Graduates with current addresses outside the United States were not included in the study.

#### Definition of Terms

Land-Grant University: designates any of a number of colleges and universities originally given federal aid, by land grants, on condition that they offer instruction in agriculture and the mechanic arts; they are now supported by individual states with supplementary federal funds.

College of Agriculture: that portion of the Division of Agriculture, at OSU, that is responsible for teaching, instruction, and training of students who desire knowledge in an area of agriculture.

Degree Major: The major area of study within the Bachelor of Science degree in the College of Agriculture.

Agricultural Industry: all businesses and employment involved in the production of crops and livestock.

Instruction: any teaching lesson, rule, or precept.

## CHAPTER II

### LITERATURE REVIEW

Much has been written regarding the responsibility of public universities to the clientele they are to serve. Perhaps even more has been written about the evaluation of the public university to determine what is being accomplished. The literature varies greatly as to the specific purpose of the public university but is generally directed toward meeting the needs of society. It is also well documented that the needs of students and our society are changing.

The public university must be receptive to the changing desires and needs of society if it is to continue to receive the support and backing of its clientele. Brown and Moyhew (1965) stated that

an institution of higher education, as is true of any social institution, is the creation of its supporting constituency and designed to accomplish socially desired ends. Although collegiate institutions may be mandated to criticize, to lead, or to instruct other segments of society, this is a delegated responsibility which may be withdrawn, circumscribed, or limited (p. 95).

The result of non-concern of universities for the people they serve will cause a decrease in financial support for the university and a decrease in the number of students attending the university. Brown and Moyhew reported that a large majority of college students attend an institution of higher learning because they believe they will develop a vocational competence that will enable them to find employment

in their chosen field after graduation. This must be a goal of the university.

The Morrill Act of 1862 granted to each state public land in the amount of 30,000 acres for each senator and member of the House of Representatives from that state. The states were directed to invest the proceeds from the sale of these lands for the establishment of the Land-Grant University (Ross, 1942). The land-grant universities had a specific purpose at their commencement. Crane (1963) stated that the land-grant university was an institution of higher learning

. . . where the leading objective shall be, without excluding other scientific and classical studies, and including military tactics to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in several pursuits and professions in life (p. 191).

In this statement Crane clearly stated the mandate to the land-grant university to provide training in agriculture in the method desired by the people of the state in which the university exists.

The land-grant universities were revolutionary in this country in developing an institution that combined undergraduate instruction, graduate education, and research (Perkins, 1966). The first area to feel the impact of this new university was agriculture, as the application of scientific technology to agriculture was a primary reason for the development of the land-grant university.

From this concern for agriculture a powerful partnership was developed (Perkins, 1966). This concern brought about a union of the university, county, state, federal agencies, and private groups to



provide transmission of technology for the production of food to application.

This application of new agricultural technologies has caused a rapid increase in the productivity of the agriculturist, allowing more people to work in industrial development. The importance of this is pointed out in the following statement by Perkins (1966):

It is reasonably safe to say that modern industrial development is almost impossible unless the farming population can be reduced and those freed from the farm made available for industrial and service industries (p. 17).

The Agricultural and Mechanical College of Oklahoma was officially opened to students on December 14, 1891, as the Land-Grant University for the State of Oklahoma. The university was established in Stillwater, Oklahoma.

In the early days of the university, the experiment station made great accomplishments. Government officials and prominent agriculturists from around the state began urging the research scientists to begin teaching in the classroom and publicizing the results of their research (Rulon, 1968). This action by the public sector of Oklahoma reminded the university of the importance of instruction and the need to be responsible to the needs of the people of the state.

A recent study to determine the level of awareness of OSU's Agricultural Instruction by the general public in Oklahoma yielded the following results: (1) higher awareness is positively correlated to higher income; (2) younger residents in Oklahoma are more aware than older residents in Oklahoma; (3) Oklahoma residents whose occupation is agriculture or agriculture related are more aware than Oklahomans with business or labor occupations; (4) as the level of education of

the resident increases, their awareness of instruction increases; (5) race affected awareness, as Whites had the highest level of awareness followed by Blacks, Indians, and other races; and (6) males have a higher level of awareness of instruction than do females (Randle, 1981).

Randle (1981) also found that Oklahoma residents with some awareness of OSU tended to rate the instructional program in agriculture "high." He recommended that a public relations program at OSU be developed, emphasis be placed on quality of instruction, and a program to acquaint potential students and parents in urban areas of career choices in agriculture be developed.

#### Need for Program Evaluation

Public institutions of education have always had the obligation to be accountable to the people they serve. Evaluation and change of the institution is an internal function but too often the impetus for change comes from outside (McComas, 1971). Generally, an internal response to outside stimuli is of the defensive nature. Leaders within the educational institution should take the initiative in developing proper programs of evaluation.

Program evaluation can be internal or external, which refers to the location of the major responsibility for conducting the evaluation (Cranton and Legge, 1978). If the evaluation is done by the faculty involved in the program, the evaluation is internal. If responsibility for planning and conducting the evaluation lies with non-employees of the program, the evaluation is external. The internal evaluation will have a more comprehensive knowledge of the program but may be too

close to the program to be objective. Objectivity of the external evaluation is an asset to the evaluation of a program. The external evaluation will give an evaluation from an unbiased perspective.

Good quality evaluation does not just happen; individual evaluators and decision makers make it happen. Patton (1981, p. 41) made this clear when he stated: "From a professional perspective, the issues in evaluation include the capabilities of practitioners, their training and development, support mechanisms, role clarifications, and the demands of the job."

Evaluation must involve a systematic collection of information about the activities, characteristics, and outcomes of the programs and personnel being evaluated (Patton, 1981). A systematic process must be used if accurate judgments are to be made about specific aspects of what the programs and personnel being evaluated are doing and affecting.

According to Holzeman (1976), evaluation of instructional and training programs must be done if the faculty and administration are concerned with the program being effective. Selection of proper evaluation techniques is important and may often require outside assistance. Program evaluation is a means of providing information for decision making that is both relevant and timely.

The civic conscience of the people of the United States has accepted the responsibility of raising the quality of life for everyone (Cronbach, Ambron, Dornbusch, Hess, Hornik, Phillips, Walker, and Weiner, 1980). Society is constantly trying to determine its problems and shortcomings and to correct them. Systematic evaluation is increasingly being sought by the population and government officials

to assure that programs are proceeding on a sound and responsive basis. Cronbach et al. pointed out that:

Evaluation has become the liveliest frontier of American social science. It invites, even entices, members of traditional disciplines to leave their settled fields and migrate to a land where history is being made (p. 3).

Product evaluation is one of the most important measures used to evaluate the degree to which the objectives and goals of an instructional program are being met (Wentling, 1980). Product evaluation is used to measure the effectiveness of a program or instruction after the program has been completed. Too often student performance in the instructional program is the only product evaluation used. The use of a follow-up survey of completers of the instructional program as a means of evaluation can be very beneficial to the educational institution, as a means of improvement of the instructional program.

#### Follow-Up

The focus of most evaluation efforts should be on the product of the education system. This emphasis of product evaluation means that we need to look at former students of the educational program to determine the effects the educational experience of the program had on them (McKinney and Oglesby, 1971). The use of a follow-up study is one of the most informative methods used to conduct product evaluation.

A follow-up study is a procedure for accumulating data from individuals after they have had a similar educational experience. Students are asked to reflect back on an educational program and determine how well the program prepared the student, or failed to prepare the student, for higher present and future work (McKinney

and Oglesby, 1971). Follow-up studies should not be the complete evaluation program but should be a part of the evaluation process.

Techniques to be used in conducting a follow-up study include: mail survey, personal interview, and telephone interview. The size of the population and the amount and type of information needed will determine the technique used (Wentling, 1980).

Wentling (1980) has provided the following as a list of objectives for follow-up studies:

1. To determine career patterns of former participants of various programs.
2. To determine the immediate demand for positions within the community.
3. To determine the mobility of program graduates.
4. To determine the adequacy of the educational training program in preparing individuals for job entry.
5. To determine the adequacy of preparation for entry into advanced training.
6. To determine the adequacy of ancillary services such as guidance, counseling, and placement.
7. To determine realistic job descriptions for positions obtained by former students.
8. To emphasize the primary objective of career education to staff and students.
9. To provide information for required reports (pp. 141-144).

The ultimate objective of a follow-up study is to better educate and train the successors of the group studied (Gilli, 1975). A follow-up study can provide useful information but it has several major hazards. The questionnaire must be carefully constructed in order to secure the quality of information desired. Implementing the findings of the study into the educational program can often be a

problem because of insufficient resources being committed to the program. The conducting of successful follow-up studies requires expertise as well as adequate time and resources.

The use of follow-up can be a method of developing strong channels of communication with alumni (Nelson, 1964). The alumni become more closely connected with and directly interested in their alma mater as they provide input through follow-up. The university gains in public relations and has an excellent means of alumni fund raising.

Brantner (1975) identified the three major categories of benefits, accountability of the program, and legislative support. Student benefits included improvement of the instructional program, assisting students in their personal life, and identifying students that need assistance with life adjustments and career changes.

The public is requiring educators to justify their expenditures and be accountable for their existence (Brantner, 1975). On the basis of a follow-up study a school can modify, change, or endorse the planned educational program to meet its instructional obligations.

As viewed by Brantner (1975), follow-up provides substantial legislative support in the following ways:

Follow-up results that present evidence of program effectiveness can play a useful role in retaining support. Evidence presented in this form is easily understood. The terminology of the follow-up study and its applicability is readily grasped without translation or interpretation (p. 27).

Of the above mentioned benefits of follow-up, all are important and any one could be used to justify the use of follow-up. But undoubtedly the most important use of follow-up is for improvement of the instructional program.

### Related Studies

A number of studies (related to this study) exploring agricultural instructional programs have been conducted. Some of these studies cover only one department in a College of Agriculture or agricultural instructional programs on a level other than the university, but provide insight as to the method and purpose of follow-up in agricultural instructional programs.

McCoy (1983), in a study to determine the degree to which the basic objectives of the College of Agriculture at the Pennsylvania State University are being accomplished, indicated that recent graduates believed the objectives to be valid for the college and that they had attained the objective. This indicated that the college was providing the type of instruction and training that is needed and desired by its students.

Nippo (1983), in a survey of undergraduate educational needs of the College of Resource Development at the University of Rhode Island, found that curriculum changes and student advisement method changes were needed. Suggestions on how to best recruit students into the College of Resource Development were solicited.

Maner (1975), in a study to analyze factors which influenced students to enroll in the College of Agriculture at the University of Tennessee and factors that influence students in the selection of a major area of study, found that the typical graduate had a farm or rural background and had completed one or more courses of high school vocational agriculture. The graduate's local vocational agriculture teacher and parents had the greatest impact on their selection of a

major field of study. Most graduates found their training received in the College of Agriculture to be valuable in their employment and would seek the same degree if they were to start over. The study also found that guidance and counseling practices could be improved by having advisers make themselves more accessible to students. The college needs to provide more assistance to graduates in seeking employment.

A study done by Rhea (1953) revealed that most of the graduates of Iowa State College were being employed in areas of agriculture, with a high number seeking advanced degrees. This would tend to indicate that the college was properly preparing students at the time the study was conducted.

Miller (1980), in a study to compare Master of Agriculture and Master of Science graduates of the College of Agriculture at Texas A & M University, found Master of Agriculture recipients tended to be more practically minded and sought careers in business and industry as compared to Master of Science graduates, who tended to be more theoretically oriented and sought careers in professional areas. The study also found that masters degree graduates had definite career goals and were satisfied with their degree program.

Most of the graduates found employment in their field of study, or one closely related. The study indicated that most masters degree graduates received adequate training but some areas in the instructional program needed improvement.

Powers (1958), in a study to determine factors that contributed to first employment and relation of training to career of College of Agriculture graduates at OSU, determined that most graduates made



contacts for first employment by their own initiative, although a high number found their first employment through university contacts. The majority of the alumni indicated that their major courses of study were adequate, or at least adequate to a degree, as preparation for their present occupations.

Boydston (1961), in a study to investigate the adequacy of agriculture courses as preparation for present employment, effectiveness of courses taken, present occupation in relation to field of study, and additional courses needed in the Division of Agriculture at Cameron State Agricultural College, indicated that most alumni felt their course of study was satisfactory, but that improved laboratory facilities and higher requirements in some courses were needed. Most alumni indicated that their major course of study prepared them adequately for their present employment. The study indicated a need for greater variety of teaching methods used and improvement in courses of poultry, dairy, and horticulture.

A study conducted by Fain (1981) of graduates from the Division of Home Economics at OSU to obtain opinions of the home economics graduates concerning their professional preparation programs in relation to their personal and professional development as well as any recommendations they might have for program changes, concluded that home economics graduates were capable of and had been securing a variety of positions. The study also concluded that graduates tended to choose current careers which were directly related to their major subject area, with graduates who had been out of OSU for five years or more having a higher level of job satisfaction than those who had been out for three years or less.

Johnson (1980), in a study conducted to determine the occupational status of 1973-74 Oklahoma vocational agriculture completers along with opinions concerning certain aspects of their vocational agriculture program, concluded that most Oklahoma vocational agriculture completers were satisfied with their vocational agriculture programs. The study also determined that Future Farmers of America (FFA) activities, supervised occupational experience programs, and laboratory instruction were important to the quality of vocational agriculture programs. The study concluded that adult education is an important part of the vocational agriculture program and should be utilized more extensively in programs.

A study conducted by Bryan (1956) to survey Agriculture Education graduates from the University of Idaho, determined that vocational agriculture teaching was the first employment of the graduates, but most left teaching largely because of low pay. Most graduates indicated that their training at the University of Idaho was of considerable help to them in their present occupation.

Darcey (1980), in a follow-up of mechanized agriculture students at Texas A & M University, concluded that the mechanized agriculture curriculum should involve more student preparation in skill areas, with further instruction being given in several practical mechanics areas. The study indicated that more vocational counseling and guidance was needed by students. A review of facilities and equipment also should be conducted to better meet the needs of students.

### Summary

A review of literature has shown that public universities must be

aware of the needs of the people that support the university, if the university is to continue to receive the people's support. The needs of the clientele of the university will continue to change, requiring constant evaluation and change by the university.

Product evaluation is one of the most important and beneficial methods that can be used to evaluate the degree to which a university is meeting the needs of its students. The use of a follow-up study is most often used in conducting a product evaluation of an educational institution.

Because of OSU's status as a public university with the responsibility of providing agricultural instruction to the state, country, and world, evaluation of its instructional program through the use of a follow-up study must occur in order to meet the needs of the people it serves.

## CHAPTER III

### DESIGN AND CONDUCT OF THE STUDY

The purpose of this chapter is to describe the design and procedures used to accomplish the purpose of this study. The design and procedures used were determined by the purpose of the study and the objectives which were outlined in Chapter I. To gather and analyze data pertaining to the purpose and objectives of this study, the following tasks were performed:

1. Determination and description of the population from which appropriate data were derived.
2. Develop the instrument for data collection with the aid of the OSU College of Agriculture faculty.
3. Develop the proper procedure for effective collection of data needed for this study.
4. Establish appropriate methods for analysis of the data.

#### Study Population

The population for this study consisted of Bachelor of Science degree graduates of the College of Agriculture at OSU. Graduates for the years of 1979 through 1983 were used in the study to help secure information relevant to present College of Agriculture programs. Only graduates who were United States residents were included in the follow-up procedure. A list of graduates fitting the previous

description was obtained from the office of the Dean for Resident Instruction in the College of Agriculture at OSU. It was determined that there were 1,525 graduates fitting the description of the population.

### Development of the Instrument

To secure appropriate information from the Bachelor of Science degree graduates of the College of Agriculture at OSU, the development of an instrument was needed. In the formation and development of the instrument, a review of related literature and instruments that had previously been used in related studies was conducted. To insure that proper procedures were used in developing the instrument, several educational research books were used as references for development.

Additional direction to development of the instrument was given by the Dean of Resident Instruction for the College of Agriculture and from the department heads from each department in the College of Agriculture at OSU.

A mailed questionnaire was chosen as the method for collecting data for the study. In selection of this method for collection of data and the advantages and disadvantages of the method were considered. The following caution was given by Isaac and Michael (1984) in the use of mailed questionnaires:

This approach is the most commonly used survey method and often the most sterile or misleading, unless the following disadvantages are heeded and offset:

1. Low response rate can occur, especially with less educated and older addresses, inviting a nonrepresentative return.
2. No assurance the questions were understood.

3. No assurance addressee actually was the one who answered (p. 130).

Care must be taken to develop and administer the questionnaire in such a way that most of the problems can be avoided and disadvantages minimized. Isaac and Michael (1984) suggested the following consideration in using a questionnaire:

Questionnaires should be carefully field tested to eliminate ambiguous or biased items and to improve format, both for ease of understanding and facility in analyzing results. Response rate can be improved with stamped return envelopes, follow-up reminders, advance contacts and publicity campaign, personalized letters of transmittal and, when a handful of questions with simple answers is sufficient, a preprinted return postcard can serve as the instrument (p. 131).

The questionnaire was developed by keeping the guidelines and characteristics of good educational research in mind throughout the development process. Isaac and Michael (1984) suggested that the following guidelines be adhered to in developing a questionnaire for mailing:

1. This is the single most widely used technique in education. It requires a careful, clear statement of the problem underlying the questionnaire. Otherwise, ambiguity and misinterpretation will invalidate the findings.
2. Constructing the questionnaire:
  - a. Questionnaires tend to be planned poorly and overdone. To overcome consumer resistance, they must be expertly designed and skillfully introduced and justified.
  - b. State the reason for the questionnaire and explain how the information will be analyzed. Avoid wordiness and ambiguity.
  - c. Objectivity is important. Lengthy, subjective, open-ended answers are difficult for the respondent to write and for the investigator to evaluate. If the possible categories of responses can be anticipated, these should be

offered as alternatives to an objective question.

- d. One of the best ways of developing good objective questions is to administer an open-ended form of the question to a small sample of subjects representative of the population in which you are interested. These more lengthy answers provide the data from which objective-type answers are derived.
- e. Questions should be asked in such a way that they minimize the evaluation task, eliminating unnecessary processing steps and interpretation problems.
- f. Avoid questions that are threatening to the respondent, exposing him to criticism or placing him in an awkward position.
- g. Avoid questions which evoke predictable response biases and obscure objective information.
- h. Avoid leading questions.
- i. Pretest the questionnaire (pp. 133-134).

After developing questions for the questionnaire that would measure the objectives of this study, careful consideration was given to the development of a proper order for the questions. The questions were ordered in a sequence by subject or topic area. Due to the large number in the population, the SPSSX statistical analysis system was chosen to assist in the analysis of the data obtained from the questionnaire (SPSSX User's Guide, 1983). SPSSX is a statistical analysis computer program which is available for use at OSU, and was developed by SPSS, Inc., Chicago, Illinois. The advantage of using SPSSX is mainly due to the statistical package's ability to do several statistical calculations and print the results in a clear and understandable manner. The use of the statistical package required the development and implementation of a coding system for the questionnaire. The coding

system allowed ease and consistency in the keypunching of each response, for the purpose of statistical analysis.

Reduction of the size of the questionnaire to a reasonable length was important. The reduced size would save time and money by reducing the amount of paper to be purchased and handled by the researcher. It was also important that the questionnaire be of reasonable length to help insure a response from each member of the population.

In its final form, the questionnaire contained 30 items or questions. Two of the questions required a combined total of 14 responses. Most of the questions utilized the forced-response format. Eight of the forced-response questions allowed for comments after an answer choice had been given. Five questions on the questionnaire utilized the open-ended response format.

The questionnaire utilized questions in the following numbers and topic areas:

1. Six questions relating to the educational history of the respondent.
2. Six questions relating to the employment history of the respondent and how this related to his/her education in the College of Agriculture at OSU.
3. Five questions relating to the quality of instruction, equipment, and facilities, and their benefit in the respondent's employment.
4. One question regarding the respondent's decision to study agriculture at OSU.
5. Four questions relating to the job placement assistance given to the respondent by the College of Agriculture at OSU.



6. Two questions dealing with the career guidance and advisement received by the respondent through the College of Agriculture at OSU.

7. One question requiring seven responses as to the influence different factors had on the respondent's decision to pursue a degree in agriculture at OSU.

8. One question requiring seven responses as to the influence different persons had on the respondent's decision to pursue a degree in agriculture at OSU.

9. Three questions relating to present and needed course requirements for the Bachelor of Science degree in the College of Agriculture at OSU.

10. One question relating to salary history of the respondent.

#### Collection of the Data

The instrument to be used in this study was completed on June 8, 1984. The pilot study to help insure a valid questionnaire and determine changes needed in the study had been completed by this date.

On July 19, 1984, the first mailing of 1,525 questionnaires to the population was completed. A cover letter from Dr. Paul Hummer, Dean of Resident Instruction for the College of Agriculture at OSU, was used for the first mailing (see Appendix D). Thirty percent of the population responded to the first mailing. A second mailing was made to all nonrespondents on August 21, 1984. The second mailing used a cover letter from the department head (see Appendix D) of the department in which each graduate received their degree. Three weeks after the second mailing, 62% of the total population had responded.

September 11, 1984 was set as a deadline for response to the questionnaire. Only questionnaires received by the deadline date were considered in the study, as all responses were collected and key-punched for computer analysis on the day of the deadline.

### Analysis of the Data

The population of this study was all Bachelor of Science degree graduates from the College of Agriculture at OSU for the years 1979 through 1983. The data obtained from this population through the use of the mailed questionnaire provided the following information: (1) current positions, salary range, and working conditions of the population; (2) skills needed by graduates in their current employment; (3) adequacy of training, counseling, and placement services received by the population; and (4) the adequacy of instructional facilities and equipment used in the educational training of the population.

The college and university educational history of each respondent was determined through questions 1, 2, 3, 4, 5, and 6 of the questionnaire. Question 1 determined the Bachelor of Science degree that had been obtained by the respondent from the College of Agriculture at OSU, which allowed for separation of the respondents for an analysis of the data by departments in the College of Agriculture.

Question 2 determined the year and semester the respondent received the Bachelor of Science degree to insure that the respondent was a part of the population. The question also allowed for additional use of this data, if needed, for comparison of years of graduation for the characteristics of the data collected.

Questions 3, 4, 5, and 6 provided information on the respondent's advanced degrees worked on, type of degree, institution where the advanced degree work was done, and whether or not the degree had been completed. All responses to the questions were scored on a frequency basis with the number and percentage being determined for each department in the College of Agriculture.

Questions 7, 8, 9, 10, 12, 20, and 27 were questions seeking choice answers with no point values being given to different answer selections. The answer selections for each question were scored as to frequency and percentage of the population, for the College of Agriculture in total, and for each department separately.

Questions 11, 28, and 29 were given open-ended answers by the respondents. After all questionnaires were collected, responses for each question were grouped and a frequency score was given for each response. Scores were determined for the College of Agriculture total and for each department separately.

Questions 13, 14, 15, 16, and 22 were questions with five forced choice answers that were given the following point scale values and response categories:

<u>Response Category</u>	<u>Scale</u>	<u>Range Limits</u>
Poor	1	1.00-1.49
Fair	2	1.50-2.49
Average	3	2.50-3.49
Good	4	3.50-4.49
Excellent	5	4.50-5.00

Questions 17 and 24 were questions with five forced choice answers that were given the following point scale values and response categories:

<u>Response Category</u>	<u>Scale</u>	<u>Range Limits</u>
No benefit	1	1.00-1.49
Little benefit	2	1.50-2.49
Moderate benefit	3	2.50-3.49
Much benefit	4	3.50-4.49
Great benefit	5	4.50-5.00

Questions 19, 21, and 23 were questions with five forced choice answers that were given the following point scale values and response categories:

<u>Response Category</u>	<u>Scale</u>	<u>Range Limits</u>
Very inadequate	1	1.00-1.49
Inadequate	2	1.50-2.49
Adequate	3	2.50-3.49
More than adequate	4	3.50-4.49
Very adequate	5	4.50-5.00

In addition to the five point scale, questions 19, 21, and 23 provided a response category of "Did not seek help." This category was scored using the number of responses and the percentage of the population for the College of Agriculture and each department separately.

Questions 25 and 26 determined the degree of influence different factors and persons had on the respondent's decision to earn a degree in agriculture at OSU. The questions were forced-response type questions using a five point scale. A mean score was determined for each factor or person using the following response categories and scale:

<u>Response Category</u>	<u>Scale</u>	<u>Range Limits</u>
Very strong	4	3.50-4.00
Strong	3	2.50-3.49
Moderate	2	1.50-2.49
Little	1	0.50-1.49
None	0	0.00-0.49

Question 30 was used to determine the salary range of graduates of the College of Agriculture for their first position after graduation and their present position. The respondents were allowed answers from below \$5,000 through \$50,000 or more, divided by \$5,000 steps for

each answer selection. This provided 11 possible answer selections for each of the two parts of the question.

Answers for the question were scored on a frequency basis for each of the two sections. Scores were determined for the College of Agriculture total and for each department separately.

Descriptive statistics were used in this study, since the total population was used. The analysis of the data was expressed in the form of arithmetic mean, total numbers, and percentages.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

#### Introduction

The purpose of this chapter is to describe the specific information gathered from former students of the College of Agriculture at OSU about current employment status, skills needed in their employment, and the quality and adequacy of training received from their academic preparation while attending OSU.

Data collected in this study were based on the 950 responses from the population of 1,525 College of Agriculture graduates from the years 1979 through 1983. The characteristics of the individuals are reported in the first section of this chapter through the use of frequency distributions. In the second section of this chapter the frequency distributions for the employment history and status of the individuals are presented. The third section of this chapter uses mean scores and frequency distributions to present information on the respondents' views of the instructional programs in the College of Agriculture. The fourth section of this chapter uses mean scores and frequency distributions to report data on the respondents' views on placement service and guidance quality in the College of Agriculture. Section five uses mean scores to report data on factors which influenced the respondents to seek a degree in agriculture at OSU. Data

reporting the respondents' views on needed changes in the curriculum for programs in the College of Agriculture are found in section six of this chapter. The seventh section of this chapter reports the salary range of the respondents through the use of frequency distribution.

### Background of the Population

The population of this study included all Bachelor of Science degree graduates of the College of Agriculture at OSU for the years 1979-1983, for which current addresses could be found. A population of 1,525 individuals was used for the study. The population contained individuals from all 15 degree majors offered through the College of Agriculture. The number (n) and percentage (%) of respondents from each of the departments in the study is shown in Table I. Of the 1,525 individuals receiving a questionnaire, 950 individuals (62.29%) cooperated and responded to the 30 items.

### General Characteristics of Respondents

The survey instrument contained six questions designed to obtain personal information from each individual concerning the major area of study of his/her Bachelor of Science degree, year in which the degree was received, and work done on other degrees since completion of the degree in question. In responding to the questionnaire, not all questions were answered by all respondents; therefore, the "n" of different tables varies somewhat.

Presented in Table II are the number and percentage of the 950 respondents who received a Bachelor of Science degree during each of the years included in the study. The year 1979 had the highest

TABLE I  
FREQUENCY OF B.S. DEGREE RESPONDENTS FROM THE  
COLLEGE OF AGRICULTURE BY DEGREE AREA

Degree Major	Frequency	Distribution
	n	%
Agricultural Communications	14	1.47
Agricultural Economics	216	22.74
Agricultural Education	117	12.32
Agricultural Engineering	29	3.05
Agriculture (General)	24	2.53
Agronomy	96	10.10
Animal Science	236	24.84
Biochemistry	9	.95
Entomology	7	.74
Forestry	62	6.53
Horticulture	62	6.53
Landscape Architecture	38	4.00
Mechanized Agriculture	18	1.89
Plant Pathology	5	.53
Pre-veterinary Medicine	17	1.79
Total	950	100.00

TABLE II  
FREQUENCY OF RESPONDENTS BY YEAR OF GRADUATION

Year	Frequency	Distribution
	n	%
1979	247	26.00
1980	198	20.84
1981	181	19.05
1982	192	20.21
1983	132	13.90
Total	950	100.00



percentage (26%) of respondents of any of the years surveyed. The year of 1980 had 20.84% of the respondents in the study. Nineteen percent of the respondents received their degrees in 1981, and 20.21% received their degrees in 1982. The year of 1983 yielded the lowest percentage of the respondents (13.90%).

The frequency distribution of degree work by the graduates since completing their B.S. degrees in the College of Agriculture at OSU is shown in Table III. Three hundred sixty additional degrees have been worked on, with 8.61% being additional bachelors degrees. Fifty-five percent of the degrees worked on were at the masters level. Doctorate level degrees made up 30% of the degrees worked on by the respondents. Degrees of other types made up 6.39% of the total number of degrees that had been worked on by the respondents.

TABLE III  
DEGREE WORK BY THE RESPONDENTS SINCE COMPLETING  
THEIR B.S. DEGREE IN COLLEGE OF  
AGRICULTURE AT OSU

Degree	Frequency	Distribution
	n	%
Additional Bachelors	31	8.61
Masters	198	55.00
Doctorate	108	30.00
Other	23	6.39
Total	360	100.00

### Employment Data

In order to determine present employment, employment trends, and relation of training to employment, a section of six questions were developed and included as part of the questionnaire. The questions were numbered 7 through 12, consecutively (see Appendix A).

Responses to the question, "How did you make initial contact with your first employer after receiving your B.S. degree?" are reported in Table IV. Nine hundred and eighteen individuals responded to the question. The Agricultural Placement Office and the University Placement Office were indicated by 10.13% of the individuals, while 40.31% indicated that initial contacts with their first employers were made through their own initiatives. Twenty-two percent of the individuals indicated that they made initial contacts with their first employers through other means.

TABLE IV  
METHODS OF CONTACT WITH FIRST EMPLOYER  
AFTER GRADUATION

Contact Method	<u>Frequency Distribution</u>	
	<u>n</u>	<u>%</u>
Department Arranged Interview	93	10.13
Agricultural Placement Office	64	6.97
University Placement Office	29	3.16
Through a Friend	86	9.37
Through a Relative	71	7.73
On Own Initiative	370	40.31
Other	205	22.33
Total	918	100.00

Responses to statements designed to determine extent of relationship of first full-time job to major field of study are reported in Table V. A total of 902 individuals responded. Of the total individuals responding, 46.23% indicated that their first full-time jobs were in their fields of college study. Twenty-one percent of the total respondents indicated that their first jobs were closely related to their fields of college study. Fourteen percent of the respondents indicated that their first jobs were somewhat related to their fields of college study. A total of 18.30% of the respondents indicated that their first full-time jobs had little or no relationship to their fields of college study.

Over 60% of the respondents who received Bachelor of Science degrees in the major areas of Agricultural Education, Entomology, Horticulture, Landscape Architecture, and Pre-veterinary Medicine indicated that their first full-time jobs were in their fields of college study. Between 40 and 60% of the respondents from the degree areas of Agricultural Engineering, Agriculture (General), Agronomy, Animal Science, and Forestry indicated that their first full-time jobs were in their fields of college study. All other degree areas had responses of less than 40% in this category. Over 25% of the respondents from each of the degree areas of Agricultural Communications, Forestry, and Plant Pathology indicated that their first full-time jobs had no relationship to their fields of college study.

Data relative to the number of full-time positions held by respondents since graduation are reported in Table VI. A total of 933 individuals responded to the question. Seven percent of the graduates reported that they had not had a full-time position since receiving

TABLE V  
RELATIONSHIP OF B.S. DEGREE AREA TO FIRST FULL-TIME  
JOB AFTER GRADUATION

Degree Major	In Field of College Study		Closely Related to Field of College Study		Somewhat Related to Field of College Study		Little Relationship to Field of College Study		No Relationship to Field of College Study		Total
	n	%	n	%	n	%	n	%	n	%	n
Agricultural Communications	4	28.57	3	21.42	1	7.14	2	14.29	4	28.57	14
Agricultural Economics	63	30.58	55	26.70	52	25.24	13	6.31	23	11.17	206
Agricultural Education	72	63.72	14	12.39	12	10.62	8	7.08	7	6.19	113
Agricultural Engineering	12	42.86	7	25.00	7	25.00	2	7.14	0	0.00	28
Agriculture (General)	11	45.83	6	25.00	2	8.33	2	8.33	3	12.50	24
Agronomy	47	53.41	20	22.73	8	9.09	5	5.68	8	9.09	88
Animal Science	92	42.59	48	22.22	28	12.96	19	8.80	29	13.43	216
Biochemistry	2	22.22	2	22.22	2	22.22	2	22.22	1	11.12	9
Entomology	4	66.66	1	16.67	1	16.67	0	0.00	0	0.00	6
Forestry	25	41.67	5	8.33	5	8.33	9	15.00	16	26.67	60
Horticulture	37	60.66	16	26.23	2	3.28	2	3.28	4	6.55	61
Landscape Architecture	28	73.68	7	18.42	2	5.26	0	0.00	1	2.63	38
Mechanized Agriculture	6	33.33	3	16.67	5	27.78	3	16.67	1	5.55	18
Plant Pathology	1	33.33	0	0.00	1	33.33	0	0.00	1	33.34	3
Pre-veterinary Medicine	12	70.59	4	23.53	1	5.88	0	0.00	0	0.00	17
Total	417	46.23	191	21.17	129	14.30	67	7.43	98	10.87	902

their B.S. degree. Of the respondents, 51.98% have had one full-time position since receiving their B.S. degree. Four percent of the respondents have had four or more full-time jobs since receiving their B.S. degree.

TABLE VI  
NUMBER OF FULL-TIME POSITIONS GRADUATES  
HAVE HAD SINCE GRADUATION

Number	<u>Frequency</u>	<u>Distribution</u>
	n	%
None	66	7.07
One	485	51.98
Two	260	27.87
Three	82	8.79
Four or More	40	4.29
Total	933	100.00

In Table VII, 37.15% of the 883 total respondents indicated that they had worked for their present employers for one year (nearest whole number). Of the individuals responding, 25.59% indicated that they had worked for their present employers for four or more years (nearest whole number).

The last questionnaire item which contributed to the employment history and employment situation description of the respondents was: "Check the statement which most closely applies to your present

position." The data from this questionnaire item are found in Table VIII. A total of 911 individuals responded to the survey item. Out of the total respondents, 42.15% indicated that their present jobs were in their fields of college study. Twenty-three percent of the total respondents indicated their present jobs had little or no relationship to their fields of college study.

TABLE VII  
NUMBER OF YEARS GRADUATE HAS WORKED  
FOR PRESENT EMPLOYER

Number of Years	Frequency Distribution	
	n	%
One	328	37.15
Two	172	19.48
Three	157	17.78
Four or More	226	25.59
Total	883	100.00

Over 75% of the respondents that received B.S. degrees in Landscape Architecture and Pre-veterinary Medicine indicated that their present jobs were in their fields of college study. Graduates from the degree majors of Agricultural Education, Agronomy, and Horticulture that responded to the questionnaire indicated that between 50 and 60% of their jobs were in their fields of college study. Less than 8%

TABLE VIII  
RELATIONSHIP OF B.S. DEGREE AREA  
TO PRESENT JOB

Degree Major	In Field of College Study		Closely Related to Field of College Study		Somewhat Related to Field of College Study		Little Relationship to Field of College Study		No Relationship to Field of College Study		Total
	n	%	n	%	n	%	n	%	n	%	
Agricultural Communication	1	7.14	1	7.14	2	14.29	3	21.43	7	50.00	14
Agricultural Economics	56	26.92	51	24.52	47	22.60	30	14.42	24	11.54	208
Agricultural Education	64	56.14	16	14.03	18	15.79	11	9.65	5	4.39	114
Agricultural Engineering	7	25.00	7	25.00	7	25.00	5	17.86	2	7.14	28
Agriculture (General)	11	45.83	4	16.67	4	16.67	2	8.33	3	12.50	24
Agronomy	49	55.06	18	20.22	9	10.11	7	7.87	6	6.74	89
Animal Science	91	40.62	52	23.21	32	14.29	18	8.04	31	13.84	224
Biochemistry	3	42.86	2	28.57	1	14.29	0	0.00	1	14.29	7
Entomology	0	0.00	0	0.00	4	57.14	3	42.86	0	0.00	7
Forestry	17	28.81	9	15.25	7	11.86	8	13.56	18	30.51	59
Horticulture	31	51.67	7	11.67	3	5.00	5	8.33	14	23.33	60
Landscape Architecture	29	76.32	2	5.26	2	5.26	2	5.26	3	7.89	38
Mechanized Agriculture	6	33.33	4	22.22	4	22.22	0	0.00	4	22.22	18
Plant Pathology	0	0.00	0	0.00	3	75.00	0	0.00	1	25.00	4
Pre-veterinary Medicine	15	88.23	2	11.77	0	0.00	0	0.00	0	0.00	17
Total	384	42.15	177	19.43	140	15.37	91	9.99	119	13.06	911

of the respondents from the degree majors of Agricultural Communications, Entomology, and Plant Pathology were presently employed in jobs that were in their fields of college study. Over 70% of the respondents that were Agricultural Communications degree majors were employed in jobs that had little or no relationship to their field of college study. All Entomology degree major respondents indicated that their present jobs were somewhat related or had little relationship to their field of college study. Over 20% of the respondents from each of the degree major areas of Forestry, Horticulture, Mechanized Agriculture, and Plant Pathology had present jobs with no relationship to their field of college study.

#### Instructional Program Data

This section of the chapter presents the views of the respondents for questions 13 through 18 of the questionnaire (see Appendix A), which deal with the quality of instruction received by the respondents while they were obtaining their B.S. degree in the College of Agriculture at OSU. The first five questions were five forced-choice answers that were given the following point scale values:

<u>Scale</u>	<u>Range Limits</u>
1	1.00-1.49
2	1.50-2.49
3	2.50-3.49
4	3.50-4.49
5	4.50-5.00

Questions 13 through 18 used the following categories with the point scale:



<u>Response Categories</u>	<u>Scale</u>	<u>Range Limits</u>
Poor	1	1.00-1.49
Fair	2	1.50-2.49
Average	3	2.50-3.49
Good	4	3.50-4.49
Excellent	5	4.50-5.00

In Table IX the mean score for each degree major is shown for the question, "In general, how would you rate the quality of instructors in your major area of study?" A total of 948 responses were received to the question, with a mean score of 4.02 being obtained for all responses, which puts the total mean response for the question in the "good" category. As can be seen, the mean responses for the degree majors of Entomology (3.43) and Plant Pathology (3.00) are in the "average" category, with all other degree major mean responses being in the "good" category. A high degree of variation in responses was obtained for this question from the respondents having degree majors in Agronomy, Entomology, and Plant Pathology. This variation can be seen in the frequency distribution in Table IX.

The mean responses for the question, "In general, how would you rate the course content (usefulness and quality of information) of courses in your major field of study?" are shown in Table X. A mean response was determined for each degree major area and for the total responses, which numbered 944. The mean scores for the respondents from the degree majors of Agricultural Communications (3.21), Agricultural Engineering (3.38), Entomology (3.29), and Plant Pathology (2.50) were each in the "average" category. The mean scores for all other degree majors was in the "good" category. The mean score for the total response to the question was 3.83, which is in the "good" category. The degree majors of Agricultural Communications, Agricultural

TABLE IX  
QUALITY OF INSTRUCTORS IN MAJOR AREA OF STUDY

Degree Major	Poor		Fair		Average		Good		Excellent		Total		Category
	n	%	n	%	n	%	n	%	n	%	n	Mean	
Agricultural Communications	1	7.14	0	0.00	4	28.57	9	64.29	0	0.00	14	3.50	Good
Agricultural Economics	0	0.00	1	0.46	14	6.48	139	64.35	62	28.71	216	4.21	Good
Agricultural Education	0	0.00	6	5.13	17	14.53	74	63.25	20	17.09	117	3.92	Good
Agricultural Engineering	0	0.00	2	6.90	5	17.24	20	68.96	2	6.90	29	3.76	Good
Agriculture (General)	0	0.00	0	0.00	5	20.83	14	58.34	5	20.83	24	4.00	Good
Agronomy	5	5.26	4	4.21	3	16.84	56	58.95	14	14.74	95	3.74	Good
Animal Science	2	0.85	4	1.70	18	7.67	155	65.96	56	23.83	235	4.10	Good
Biochemistry	0	0.00	0	0.00	1	11.11	7	77.78	1	11.11	9	4.00	Good
Entomology	1	14.29	0	0.00	2	28.57	3	42.85	1	14.29	7	3.43	Average
Forestry	1	1.61	2	3.23	15	24.19	37	59.68	7	11.29	62	3.76	Good
Horticulture	0	0.00	1	1.61	2	3.23	40	64.52	19	30.64	62	4.24	Good
Landscape Architecture	0	0.00	0	0.00	7	18.42	19	50.00	12	31.58	38	4.13	Good
Mechanized Agriculture	0	0.00	0	0.00	0	0.00	10	55.56	8	44.44	18	4.44	Good
Plant Pathology	0	0.00	2	50.00	0	0.00	2	50.00	0	0.00	4	3.00	Average
Pre-veterinary Medicine	0	0.00	0	0.00	4	23.53	12	70.59	1	5.88	17	3.82	Good
Total	10	1.05	22	2.32	110	11.60	598	63.08	208	21.94	948	4.02	Good

TABLE X  
USEFULNESS AND QUALITY OF COURSE CONTENT  
IN MAJOR AREA OF STUDY

Degree Major	Poor		Fair		Average		Good		Excellent		Total		Mean	Category
	n	%	n	%	n	%	n	%	n	%	n			
Agricultural Communications	1	7.14	3	21.43	2	14.29	8	57.14	0	0.00	14	3.21	Average	
Agricultural Economics	1	0.46	4	1.86	33	15.35	138	64.19	39	18.14	215	3.98	Good	
Agricultural Education	2	1.71	11	9.40	25	21.37	66	56.41	13	11.11	117	3.66	Good	
Agricultural Engineering	1	3.45	6	20.69	5	17.24	15	51.72	2	6.90	29	3.38	Average	
Agriculture (General)	0	0.00	1	4.17	7	29.17	13	54.16	3	12.50	24	3.75	Good	
Agronomy	4	4.21	5	5.26	23	24.21	52	54.74	11	11.58	95	3.64	Good	
Animal Science	2	0.86	7	3.01	32	13.73	157	67.38	35	15.02	233	3.93	Good	
Biochemistry	0	0.00	0	0.00	1	11.11	6	66.67	2	22.22	9	4.11	Good	
Entomology	1	14.29	0	0.00	3	42.85	2	28.57	1	14.29	7	3.29	Average	
Forestry	0	0.00	2	3.23	14	22.58	37	59.68	9	14.52	62	3.85	Good	
Horticulture	1	1.61	3	4.84	5	8.06	41	66.13	12	19.36	62	3.97	Good	
Landscape Architecture	0	0.00	2	2.63	8	21.05	23	60.53	6	15.79	38	3.89	Good	
Mechanized Agriculture	0	0.00	0	0.00	5	27.78	8	44.44	5	27.78	18	4.00	Good	
Plant Pathology	1	25.00	1	25.00	1	25.00	1	25.00	0	0.00	4	2.50	Average	
Pre-veterinary Medicine	0	0.00	0	0.00	5	29.41	10	58.82	2	11.77	17	3.82	Good	
Total	14	1.48	44	4.66	169	17.88	578	61.16	140	14.82	944	3.83	Good	

Engineering, Agronomy, Entomology, and Plant Pathology each had a high level of variation in responses, as can be seen in Table X.

Nine hundred and forty-four responses were received to the question, "In general, how would you rate the quality of equipment and facilities used in instruction in your major area of study at OSU?" (Table XI). The mean total response for the question was 3.83, which was in the "good" category. The mean response for all degree majors except Biochemistry (3.22), Forestry (3.47), Landscape Architecture (3.10), and Plant Pathology (3.25) were in the "good" category, with these degree majors being in the "average" category. A high level of variation in answer responses were found for each of the following degree major areas: Agricultural Engineering, Agronomy, Entomology, Landscape Architecture, and Plant Pathology. This variation is shown in the frequency distribution of Table XI.

The question, "How would you rate the effectiveness of your total B.S. degree program preparation for your first position after receiving your degree?" had 908 responses. The total responses to the question had a mean of 3.60, which was in the "good" category. The degree major responses from Agricultural Communications (3.07), Agricultural Engineering (3.48), Agronomy (3.36), Entomology (3.29), and Plant Pathology (2.75) had means in the "average" category. The degree majors of all other areas had a response mean in the "good" category. Information for this question is in Table XII. A high degree of variability in responses for this question was given by each degree major group except Agricultural Economics, Agricultural Education, Horticulture, and Pre-veterinary Medicine, as can be seen in the frequency distribution of Table XII.

TABLE XI  
RATING OF QUALITY OF EQUIPMENT AND FACILITIES  
USED IN INSTRUCTION BY MAJOR AREA OF STUDY

Degree Major	Poor		Fair		Average		Good		Excellent		Total		Mean	Category
	-----		-----		Frequency Distribution		-----		-----		n			
	n	%	n	%	n	%	n	%	n	%				
Agricultural Communications	0	0.00	0	0.00	3	23.08	7	53.84	3	23.08	13	4.00	Good	
Agricultural Economics	0	0.00	5	2.33	32	14.88	141	65.58	37	17.21	215	3.98	Good	
Agricultural Education	2	1.71	4	3.42	8	6.84	68	58.12	35	29.91	117	4.11	Good	
Agricultural Engineering	1	3.45	2	6.90	7	24.14	9	31.03	10	34.48	29	3.86	Good	
Agriculture (General)	0	0.00	0	0.00	8	33.33	12	50.00	4	16.67	24	3.83	Good	
Agronomy	3	3.16	9	9.47	30	31.58	41	43.16	12	12.63	95	3.53	Good	
Animal Science	3	1.28	9	3.85	47	20.09	138	58.97	37	15.81	234	3.84	Good	
Biochemistry	0	0.00	2	22.22	3	33.33	4	44.45	0	0.00	9	3.22	Average	
Entomology	0	0.00	1	14.29	2	28.57	3	42.85	1	14.29	7	3.57	Good	
Forestry	0	0.00	7	11.29	21	33.87	32	51.61	2	3.23	62	3.47	Average	
Horticulture	0	0.00	1	1.64	13	21.31	34	55.74	13	21.31	61	3.97	Good	
Landscape Architecture	4	10.53	5	13.16	13	34.21	15	39.47	1	2.63	38	3.10	Average	
Mechanized Agriculture	0	0.00	0	0.00	3	16.67	8	44.44	7	38.89	18	4.22	Good	
Plant Pathology	0	0.00	2	50.00	0	0.00	1	25.00	1	25.00	4	3.25	Average	
Pre-veterinary Medicine	0	0.00	0	0.00	4	23.53	11	64.71	2	11.76	17	3.88	Good	
Total	13	1.38	47	4.98	194	20.55	525	55.61	165	17.48	944	3.83	Good	

TABLE XII  
EFFECTIVENESS OF TOTAL B.S. DEGREE PROGRAM AS  
PREPARATION FOR FIRST POSITION  
AFTER GRADUATION

Degree Major	Poor		Fair		Average		Good		Excellent		Total	Mean	Category
	n	%	N	%	N	%	N	%	N	%	N		
Agricultural Communications	3	21.43	1	7.14	3	21.43	6	42.86	1	7.14	14	3.07	Average
Agricultural Economics	3	1.42	7	3.32	57	27.01	121	57.35	23	10.90	211	3.73	Good
Agricultural Education	0	0.00	11	9.48	29	25.00	61	52.59	15	12.93	116	3.69	Good
Agricultural Engineering	2	6.90	2	6.90	7	24.13	16	55.17	2	6.90	29	3.48	Average
Agriculture (General)	1	4.35	2	8.69	6	26.09	10	43.48	4	17.39	23	3.61	Good
Agronomy	5	5.68	12	13.64	24	27.27	40	45.45	7	7.96	88	3.36	Average
Animal Science	13	6.05	17	7.91	43	20.00	118	54.88	24	11.16	215	3.57	Good
Biochemistry	0	0.00	1	11.11	3	33.33	2	22.23	3	33.33	9	3.78	Good
Entomology	1	14.29	0	0.00	3	42.85	2	28.57	1	14.29	7	3.29	Average
Forestry	4	6.78	5	8.48	12	20.34	31	52.54	7	11.86	59	3.54	Good
Horticulture	2	3.33	4	6.67	14	23.33	36	60.00	4	6.67	60	3.60	Good
Landscape Architecture	1	2.63	2	5.26	10	26.32	19	50.00	6	15.79	38	3.71	Good
Mechanized Agriculture	0	0.00	2	11.11	5	27.78	7	38.89	4	22.22	18	3.72	Good
Plant Pathology	1	25.00	0	0.00	2	50.00	1	25.00	0	0.00	4	2.75	Average
Pre-veterinary Medicine	0	0.00	0	0.00	4	25.00	11	68.75	1	6.25	16	3.81	Good
Total	36	3.97	66	7.27	222	24.45	482	53.08	102	11.23	908	3.60	Good

Question 17 used the following categories (see Appendix A) with the previously stated point scale and range limits:

<u>Response Categories</u>	<u>Scale</u>	<u>Range Limits</u>
No benefit	1	1.00-1.49
Little benefit	2	1.50-2.49
Moderate benefit	3	2.50-3.49
Much benefit	4	3.50-4.49
Great benefit	5	4.50-5.00

A total response of 935 individuals was received for the question, "In general, how much benefit has your training received in your B.S. degree been to you in your career?" The total mean response for the question was 3.51, which is the "much benefit" category, and is shown in Table XIII. The mean response for each of the degree majors of Agricultural Economics (3.50), Agricultural Education (3.67), Agronomy (3.50), Biochemistry (4.00), Horticulture (3.57), Landscape Architecture (3.89), Mechanized Agriculture (3.56), and Pre-veterinary Medicine (3.50) were in the "much benefit" category. Each of the other degree major response groups were in the "moderate benefit" category. A high degree of variation in responses to the question were obtained from each of the degree major groups of Agricultural Communications, Agriculture (General), Animal Science, Entomology, Forestry, Horticulture, and Landscape Architecture, which can be seen in the frequency distributions of Table XIII.

A total response of 934 individuals was received for the question, "If you could remake your decision regarding study in the College of Agriculture at OSU, what would you do?" (Table XIV). Table XIV gives the frequency distributions for each degree major and for the total response. Of the total response, 57.39% indicated that they would "seek the same degree at OSU." Eighteen percent indicated that

TABLE XIII

AMOUNT OF BENEFIT TRAINING RECEIVED IN B.S. DEGREE  
PROGRAM HAS BEEN TO CAREER OF RESPONDENTS

Degree Major	No Benefit		Little Benefit		Moderate Benefit		Much Benefit		Great Benefit		Total		Mean	Category
	-----		-----		Frequency Distribution		-----		-----		-----			
	n	%	n	%	n	%	n	%	n	%	n			
Agricultural Communications	3	21.43	1	7.14	4	28.57	4	28.57	2	14.29	14	3.07	Mod. Benefit	
Agricultural Economics	2	0.94	17	7.94	91	42.52	79	36.92	25	11.68	214	3.50	Much Benefit	
Agricultural Education	2	1.71	5	4.27	39	33.33	55	47.01	16	13.68	117	3.67	Much Benefit	
Agricultural Engineering	0	0.00	4	13.79	13	44.83	10	34.48	2	6.90	29	3.34	Mod. Benefit	
Agriculture (General)	1	4.17	5	20.83	9	37.50	5	20.83	4	16.67	24	3.25	Mod. Benefit	
Agronomy	2	2.13	8	8.51	35	37.23	39	41.49	10	10.64	94	3.50	Much Benefit	
Animal Science	10	4.42	20	8.85	83	36.73	79	34.96	34	15.04	226	3.47	Mod. Benefit	
Biochemistry	0	0.00	0	0.00	2	22.22	5	55.56	2	22.22	9	4.00	Much Benefit	
Entomology	1	14.29			2	28.57	3	42.85	1	14.29	7	3.43	Mod. Benefit	
Forestry	3	4.92	7	11.47	21	34.43	24	39.34	6	9.84	61	3.38	Mod. Benefit	
Horticulture	2	3.28	10	16.39	14	22.95	21	34.43	14	22.95	61	3.57	Much Benefit	
Landscape Architecture	2	5.26	0	0.00	9	23.68	16	42.11	11	28.95	38	3.89	Much Benefit	
Mechanized Agriculture	0	0.00	1	5.56	8	44.44	7	38.89	2	11.11	18	3.56	Much Benefit	
Plant Pathology	0	0.00	1	25.00	2	25.00	1	25.00	0	0.00	4	3.00	Mod. Benefit	
Pre-veterinary Medicine	0	0.00	1	5.56	10	55.56	4	22.22	3	16.66	18	3.50	Much Benefit	
Total	28	2.99	80	8.56	343	36.68	352	37.65	132	14.12	935	3.51	Much Benefit	



TABLE XIV

RESPONDENTS' CHOICES IF THEY COULD REMAKE  
THEIR DECISIONS REGARDING STUDY  
IN COLLEGE OF AGRICULTURE

Degree Major	Seek the Same Degree at OSU		Seek a Degree in a Different Area of Agriculture at OSU		Seek a Degree in Agriculture at Another Institution		Seek a Degree in an Area Outside Agriculture		Choose Not to Seek a Degree		Other		Total
	n	%	n	%	n	%	n	%	n	%	n	%	n
Agricultural Communications	7	50.00	3	21.43	0	0.00	4	28.57	0	0.00	0	0.00	14
Agricultural Economics	144	68.57	18	8.57	3	1.43	32	15.24	0	0.00	13	6.19	210
Agricultural Education	68	59.13	32	27.83	3	2.61	5	4.35	1	0.87	6	5.22	115
Agricultural Engineering	13	46.43	1	3.57	1	3.57	10	35.71	0	0.00	3	10.71	28
Agriculture (General)	9	39.13	9	39.13	0	0.00	3	13.04	0	0.00	2	8.70	23
Agronomy	48	51.06	22	23.40	2	2.13	16	17.02	0	0.00	6	6.38	94
Animal Science	133	57.33	55	23.71	3	1.29	27	11.64	2	0.86	12	5.17	232
Biochemistry	9	100.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	9
Entomology	5	71.43	2	28.57	0	0.00	0	0.00	0	0.00	0	0.00	7
Forestry	25	40.32	10	16.13	1	1.61	20	32.26	0	0.00	6	9.68	62
Horticulture	30	48.39	11	17.74	2	3.23	13	20.97	1	1.61	5	8.06	62
Landscape Architecture	21	56.76	3	8.11	0	0.00	11	29.73	0	0.00	2	5.40	37
Mechanized Agriculture	9	50.00	4	22.22	0	0.00	4	22.22	0	0.00	1	5.56	18
Plant Pathology	0	0.00	1	25.00	0	0.00	2	50.00	0	0.00	1	25.00	4
Pre-veterinary Medicine	15	83.33	0	0.00	0	0.00	3	16.67	0	0.00	0	0.00	18
Total	536	57.39	171	18.31	15	1.61	151	16.17	4	0.43	57	6.10	934

they would "seek a degree in a different area of agriculture at OSU." The total percentage response to the category, "seek a degree in an area outside agriculture" was 16.17%. The highest percentage response to the category, "seek the same degree at OSU" by a degree major group was obtained from Biochemistry (100%), with Pre-veterinary Medicine (83.33%) being second highest and Entomology (71.43%) being third highest. Agricultural Communications, Agricultural Economics, Agricultural Education, Agronomy, Animal Science, Landscape Architecture, and Mechanized Agriculture degree major groups each had a response percentage of 50% or higher to the category "seek the same degree at OSU." Only Agricultural (General) degree major respondents had a frequency lower than 40% for the category "seek the same degree at OSU."

Over 20% of the respondents from each of the degree majors of Agricultural Communications, Agricultural Education, Agriculture (General), Agronomy, Animal Science, Entomology, Mechanized Agriculture, and Plant Pathology chose the category "seek a degree in a different area of agriculture at OSU" as a response selection to the question, "If you could remake your decision regarding study in the College of Agriculture at OSU, what would you do?"

Fifty percent of the Plant Pathology degree major respondents chose the response "seek a degree in an area outside agriculture" for the question. This selection was also made by 35.71% of the Agricultural Engineering degree major respondents and by 32.26% of the degree major respondents. Of the respondents for each of the degree majors of Agricultural Communications, Horticulture, Landscape Architecture, and Mechanized Agriculture, over 20% chose the response "seek a degree

in an area outside agriculture." The response "seek a degree in agriculture at another institution" was chosen by 1.61% of the total response to the question. The selection of the response "choose not to seek a degree" was made by 0.43% of the total respondents to the question. Six percent of the total respondents chose the "other" response to the question.

#### Job Placement and Guidance Data

This section of the chapter describes the responses to questions 19 through 24 of the questionnaire (see Appendix A). These six questions were designed to measure the quality and adequacy of the Job Placement and Guidance Services provided for the B.S. degree graduates from the College of Agriculture at OSU for the years 1979 through 1983, as perceived by the respondents.

Questions 19, 21, and 23 were six forced-answer questions with the first five selections being a five point scale for which mean scores were determined. The sixth answer selection was "did not seek help," which was scored on a frequency basis. The following point scale values were used for the first five answer selections, with the categories shown for the questions:

<u>Response Categories</u>	<u>Scale</u>	<u>Range Limits</u>
Very inadequate	1	1.00-1.49
Inadequate	2	1.50-2.49
Adequate	3	2.50-3.49
More than adequate	4	3.50-4.49
Very adequate	5	4.50-5.00

Question 20 was a four forced-answer question which was scored by the use of a frequency distribution. Questions 22 and 24 were five

forced-answer questions for which mean scores were determined using the previous point scale but different categories.

The response categories, scale, and range limits used for question 22 were as follows:

<u>Response Categories</u>	<u>Scale</u>	<u>Range Limits</u>
Poor	1	1.00-1.49
Fair	2	1.50-2.49
Average	3	2.50-3.49
Good	4	3.50-4.49
Excellent	5	4.50-5.00

Question 24 used the following response categories, scale, and range limits:

<u>Response Categories</u>	<u>Scale</u>	<u>Range Limits</u>
No benefit	1	1.00-1.49
Little benefit	2	1.50-2.49
Moderate benefit	3	2.50-3.49
Much benefit	4	3.50-4.49
Great benefit	5	4.50-5.00

The frequency distribution for the question, "How would you rate the job placement help given to you by your major department at OSU?" and the mean score for the five answer selections other than the "did not seek help" selection are shown in Table XV. A total response of 928 individuals was received for this question, with 31.68% of the total respondents selecting the "did not seek help" answer selection.

The degree major respondents from Pre-veterinary Medicine had the highest response rate (76.47%) to the "did not seek help" category, with Biochemistry (66.67%) being second highest and Agriculture (General) being the third highest, with 54.17% of the respondents in this category.

Landscape Architecture had 44.74% of the individual responses in the "did not seek help" category. The degree major respondent groups from Agricultural Economics, Agronomy, Animal Science, Entomology, and

TABLE XV  
RATING OF JOB PLACEMENT HELP GIVEN TO  
RESPONDENTS BY MAJOR DEPARTMENT

Degree Major	Very Inadequate		Inadequate		Adequate		More Than Adequate		Very Adequate	
	n	%	n	%	n	%	n	Frequency	n	%
Agricultural Communications	4	28.57	1	7.14	3	21.43	3	21.43	0	0.00
Agricultural Economics	6	2.80	17	7.94	74	34.58	30	14.02	20	9.35
Agricultural Education	15	13.04	15	13.04	33	28.70	15	13.04	12	10.43
Agricultural Engineering	4	13.79	6	20.69	9	31.03	3	10.34	1	3.45
Agriculture (General)	4	16.67	2	8.33	2	8.33	1	4.17	2	8.33
Agronomy	10	10.99	16	17.58	22	24.18	9	9.89	5	4.40
Animal Science	20	8.89	24	10.67	65	28.89	17	7.56	21	9.33
Biochemistry	1	11.11	1	11.11	1	11.11	0	0.00	0	0.00
Entomology	2	28.57	0	0.00	1	14.29	0	0.00	2	28.57
Forestry	7	11.29	11	17.74	14	22.58	10	16.13	4	6.45
Horticulture	5	8.06	7	11.29	21	33.87	7	11.29	7	11.29
Landscape Architecture	6	15.79	10	26.32	4	10.53	1	2.63	0	0.00
Mechanized Agriculture	1	5.88	3	17.65	3	17.65	2	11.76	6	35.29
Plant Pathology	1	33.33	2	66.67	0	0.00	0	0.00	0	0.00
Pre-veterinary Medicine	0	0.00	0	0.00	2	11.76	1	5.88	1	5.88
Total	86	9.27	115	12.39	254	27.37	99	10.67	80	8.62

TABLE XV (Continued)

Degree Major	Category	Mean	n	Did Not Seek Help		Total
				n	%	n
Agricultural Communications	Inadequate	2.45	11	3	21.43	14
Agricultural Economics	Adequate	3.28	147	67	31.31	214
Agricultural Education	Adequate	2.93	90	25	21.74	115
Agricultural Engineering	Adequate	2.61	23	6	20.69	29
Agriculture (General)	Adequate	2.54	11	13	54.17	24
Agronomy	Adequate	2.73	62	30	32.61	92
Animal Science	Adequate	2.97	147	78	34.67	225
Biochemistry	Inadequate	2.00	3	6	66.67	9
Entomology	Adequate	3.00	5	2	28.57	7
Forestry	Adequate	2.85	46	16	25.81	62
Horticulture	Adequate	3.08	47	15	24.19	62
Landscape Architecture	Inadequate	2.00	21	17	44.74	38
Mechanized Agriculture	More than adequate	3.60	15	2	11.77	17
Plant Pathology	Inadequate	1.67	3	0	0.00	3
Pre-veterinary Medicine	More than adequate	3.75	4	13	76.47	17
Total	Adequate	2.97	630	298	31.68	928

Forestry each had a response rate of from 25 to 35% for the category of "did not seek help." Mechanized Agriculture and Plant Pathology respondent groups both had a percentage response of less than 12 for the category.

Sufficient means were obtained for Mechanized Agriculture (3.60) and Pre-veterinary medicine (3.75) for them to be placed in the "more than adequate" category as a response to the question, "How would you rate the job placement help given to you by your major department at OSU?" (Table XV). The degree major respondents from Agricultural Communications (2.45), Biochemistry (2.00), Landscape Architecture (2.00), and Plant Pathology (1.67) had mean scores in the "inadequate" category for the question. No degree major areas had mean responses in the "very inadequate" categories, but all previously unmentioned degree majors had response means in the "adequate" category. Five or less responses were used to determine the means for each of the degree major areas of Biochemistry, Entomology, Plant Pathology, and Pre-veterinary Medicine. A high degree of variation from respondents was shown for most degree major groups for this question. The total response for this question had a mean score of 2.97, which was in the "adequate" category.

The data in Table XVI are the responses to the question, "How would you rate your degree of awareness of the College of Agriculture placement office at OSU?," to which 924 individuals responded. Of the individuals responding, 21.54% were "aware of all its services" and 47.94% were "aware of some of its services." It can be seen in Table XVI that 22.94% of the individuals responding were "aware that it

existed but not of its services" and that 7.58% were "not aware of its existence."

TABLE XVI  
RESPONDENTS' DEGREE OF AWARENESS OF THE  
COLLEGE OF AGRICULTURE JOB PLACEMENT  
OFFICE AT OSU

Response Category	Frequency	Distribution
	n	%
Aware of all of its services (job placement, resume workshops, training in job skills, job search for alumni)	199	21.54
Aware of some of its services	443	47.94
Aware that it existed but not of its services	212	22.94
Not aware of its existence	70	7.58
Total	924	100.00

Nine hundred twenty-one individuals responded to the question, "How would you rate the job placement help given to you by the College of Agriculture placement office at OSU?" for which data are shown in Table XVII. Of the individuals responding to the question, 39.85% indicated that they "did not seek help." A mean score for the respondents selecting one of the other five categories was 2.94, which is in the "adequate" category.



TABLE XVII  
RATING OF JOB PLACEMENT HELP GIVEN TO  
RESPONDENTS BY COLLEGE OF AGRICUL-  
TURE PLACEMENT OFFICE AT OSU

Mean	n	Did Not Seek Help n	Help %	Total n
2.94	554	367	39.85	921

A response from 717 individuals for the question, "In general, how would you rate the quality of facilities used in job placement (including job interview facilities) by the College of Agriculture placement office at OSU?" provided a mean score of 3.31, which is in the "average" category. Data for this question are found in Table XVIII.

TABLE XVIII  
RATING OF QUALITY OF FACILITIES USED IN JOB  
PLACEMENT BY COLLEGE OF AGRICULTURE  
PLACEMENT OFFICE AT OSU

Mean	3.31
Number	717

Nine hundred thirty-five individuals responded to the question, "How would you rate the quality of career guidance and advisement you received in your department at OSU?" for which the data are reported in Table XIX. Of the total response, 10.37% indicated that they "did not seek help." Each group of degree major respondents from Agriculture (General), Biochemistry, and Pre-veterinary Medicine had a response of over 20.00% for the "did not seek help" category. Agronomy and Animal Science respondents had 13.83% and 13.48%, respectively, as the amount that "did not seek help." All other degree major respondent groups were less than 10% in this category.

The respondents from each of the degree majors of Agricultural Economics (3.65), Biochemistry (3.71), Horticulture (3.54), and Pre-veterinary Medicine (3.67) had a mean response in the "more than adequate" category for the question. Plant Pathology degree major respondents had a mean of 2.00, which is in the "inadequate" category. All degree major groups not mentioned above had means that were in the "adequate" category. The total response to the question had a mean of 3.30, which is in the "adequate" category.

Table XX provides data for the 924 responses to the question, "What degree of benefit would a summer intern program (work experience) have been to you in making a career choice?" The mean for the total response to the question was 3.58, which is in the "much benefit" category. Mean scores for the respondents of Agricultural Education (2.57), Agriculture (General) (3.00), and Pre-veterinary Medicine (3.20) put each group in the "moderate benefit" category in response to the question. All other degree major response groups had a "much benefit" category mean response to the question. A large degree of

TABLE XIX  
RATING OF QUALITY OF CAREER GUIDANCE AND  
ADVISEMENT RECEIVED BY RESPONDENTS  
FROM THEIR DEPARTMENTS AT OSU

Degree Major	Very Inadequate		Inadequate		Adequate		More Than Adequate Frequency		Very Adequate Distribution	
	n	%	n	%	n	%	n	%	n	%
Agricultural Communications	3	21.43	3	21.43	5	35.71	1	7.14	1	7.14
Agricultural Economics	6	2.82	20	9.39	76	35.68	25	11.74	66	30.99
Agricultural Education	5	4.35	14	12.17	41	35.65	28	24.35	21	18.26
Agricultural Engineering	2	6.90	6	20.69	11	37.93	5	17.24	3	10.34
Agriculture (General)	3	13.04	2	8.70	7	30.44	3	13.04	3	13.04
Agronomy	5	5.32	16	17.02	31	32.98	14	14.89	15	15.96
Animal Science	17	7.39	36	15.65	90	39.13	34	14.78	22	9.57
Biochemistry	0	0.00	2	22.22	0	0.00	3	33.34	2	22.22
Entomology	2	28.57	0	0.00	1	14.29	2	28.57	2	28.57
Forestry	5	8.20	13	21.31	19	31.15	10	16.39	9	14.75
Horticulture	2	3.23	10	16.13	17	27.42	14	22.58	16	25.81
Landscape Architecture	3	7.89	8	21.05	14	36.84	5	13.16	5	13.16
Mechanized Agriculture	1	5.55	1	5.56	9	50.00	3	16.67	3	16.67
Plant Pathology	1	25.00	2	50.00	1	25.00	0	0.00	0	0.00
Pre-veterinary Medicine	0	0.00	0	0.00	6	35.29	4	23.53	2	11.77
Total	55	5.88	133	14.23	328	35.08	151	16.15	171	18.29

TABLE XIX (Continued)

Degree Major	Category	Mean	n	Did Not Seek Help		Total
				n	%	n
Agricultural Communications	Adequate	2.54	13	1	7.14	14
Agricultural Economics	More than adequate	3.65	193	20	9.39	213
Agricultural Education	Adequate	3.42	109	6	5.22	115
Agricultural Engineering	Adequate	3.04	27	2	6.90	29
Agriculture (General)	Adequate	3.06	18	5	21.74	23
Agronomy	Adequate	3.22	81	13	13.83	94
Animal Science	Adequate	3.04	199	31	13.48	230
Biochemistry	More than adequate	3.71	7	2	22.22	9
Entomology	Adequate	3.29	7	0	0.00	7
Forestry	Adequate	3.27	56	5	8.20	61
Horticulture	More than adequate	3.54	59	3	4.84	62
Landscape Architecture	Adequate	3.03	35	3	7.89	38
Mechanized Agriculture	Adequate	3.35	17	1	5.55	18
Plant Pathology	Inadequate	2.00	4	0	0.00	4
Pre-veterinary Medicine	More than adequate	3.67	12	5	29.41	17
Total	Adequate	3.30	838	97	10.37	935

TABLE XX

DEGREE OF BENEFIT A SUMMER INTERNSHIP WOULD  
HAVE BEEN TO RESPONDENTS IN  
MAKING A CAREER CHOICE

Degree Major	No Benefit		Little Benefit		Moderate Benefit		Much Benefit		Great Benefit		Total	Mean	Category
	Frequency Distribution										n		
	n	%	n	%	n	%	n	%	n	%			
Agricultural Communications	1	7.14	1	7.14	2	14.29	5	35.71	5	34.72	14	3.86	Much benefit
Agricultural Economics	31	14.55	15	7.04	41	19.25	62	29.11	64	30.05	213	3.53	Much benefit
Agricultural Education	32	28.32	25	22.12	23	20.35	24	21.24	9	7.97	113	2.57	Mod. benefit
Agricultural Engineering	0	0.00	0	0.00	3	17.24	10	34.48	14	48.28	29	4.31	Much benefit
Agriculture (General)	6	25.00	3	12.50	4	16.67	7	29.16	4	16.67	24	3.00	Mod. benefit
Agronomy	10	11.36	5	5.68	14	15.91	23	26.14	36	40.91	88	3.79	Much benefit
Animal Science	24	10.48	16	6.99	44	19.21	71	31.01	74	32.31	229	3.68	Much benefit
Biochemistry	0	0.00	2	22.22	1	11.11	2	22.22	4	44.45	9	3.89	Much benefit
Entomology	1	14.29	1	14.29	0	0.00	0	0.00	5	71.42	7	4.00	Much benefit
Forestry	0	0.00	4	6.45	10	16.13	21	33.87	27	43.55	62	4.16	Much benefit
Horticulture	3	4.92	7	11.48	7	11.43	16	26.23	28	45.90	61	3.97	Much benefit
Landscape Architecture	3	7.90	1	2.63	7	18.42	13	34.21	14	36.84	38	3.87	Much benefit
Mechanized Agriculture	1	5.88	2	11.77	4	23.53	5	29.41	5	29.41	17	3.65	Much benefit
Plant Pathology					1	25.00	1	25.00	2	50.00	4	4.25	Much benefit
Pre-veterinary Medicine	4	26.67	1	6.66	2	13.33	4	26.67	4	26.67	15	3.20	Mod. benefit
Total	116	12.55	83	8.98	165	17.86	265	28.68	295	31.93	924	3.58	Much benefit

variation in response was seen in most all degree major groups, as shown in Table XX.

### Student Influence Data

The purpose of this section is to explain questions 25 and 26, which were designed to measure the degree of influence certain items and persons had on the respondent's decision to earn a degree in agriculture at OSU.

All responses were on a five point scale using the following scale and categories:

<u>Response Categories</u>	<u>Scale</u>	<u>Range Limits</u>
None	1	0.00-0.49
Little	2	0.50-1.49
Moderate	3	1.50-2.49
Strong	4	2.50-3.49
Very strong	5	3.50-4.00

The data for question 25, "Rate the degree of influence each of the following factors had on your decision to earn a degree in agriculture at OSU" are shown in Table XXI. The question had seven factors to which the graduates responded. Each factor will be discussed independently.

The first factor, "overall prestige of OSU," had a total response from 943 individuals, with a mean response of 2.50, which is in the "strong" category. The highest mean was in the Entomology response group with 3.43, which is in the "strong" category. The Forestry response group had a mean of 1.47, which was in the "little" category and was the lowest of all groups. Each of the following degree major response groups had a mean response in the "moderate" category: Biochemistry (2.22), Horticulture (2.34), Landscape Architecture (2.08),

TABLE XXI  
DEGREE OF INFLUENCE SELECTED FACTORS HAD ON  
RESPONDENTS' DECISIONS TO EARN A  
DEGREE IN AGRICULTURE AT OSU

Degree Major	Overall Prestige of OSU		Reputation of OSU Faculty In Your Field		OSU's Agricultural Facilities		Nearness To Home		Financial Assistance		Uncertainty About Voca- tional Goals		Inability To Find a Job	
	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
Agricultural Communications	2.57	14	1.64	14	2.43	14	2.36	14	1.43	14	1.54	13	0.61	13
Agricultural Economics	2.77	214	2.76	214	2.85	214	1.94	214	1.01	214	1.09	214	0.35	212
Agricultural Education	2.73	116	2.75	116	3.01	116	1.46	116	1.09	116	1.15	116	0.53	114
Agricultural Engineering	2.59	29	2.28	29	2.34	29	2.34	29	1.15	29	0.96	29	0.33	27
Agriculture (General)	2.79	24	3.00	24	2.87	24	2.37	24	1.42	24	1.04	24	0.83	24
Agronomy	2.53	95	2.30	95	2.59	95	2.24	95	1.44	95	1.19	95	0.35	95
Animal Science	2.53	232	2.60	252	2.68	232	1.73	232	1.01	232	0.67	232	0.25	230
Biochemistry	2.52	9	1.22	9	1.66	9	2.22	9	1.88	9	1.22	9	0.44	9
Entomology	3.43	7	2.29	7	3.14	7	2.43	7	1.86	7	0.86	7	0.71	7
Forestry	1.47	62	1.43	62	1.52	62	2.19	62	1.03	62	0.98	62	0.31	62
Horticulture	2.34	62	2.68	62	2.56	62	2.26	62	1.56	62	0.89	62	0.42	60
Landscape Architecture	2.08	38	2.03	38	1.84	38	2.39	38	0.84	38	1.21	38	0.27	37
Mechanized Agriculture	2.89	18	2.94	18	2.88	18	2.11	18	1.56	18	1.11	18	0.05	18
Plant Pathology	2.25	4	1.50	4	2.50	4	2.75	4	1.50	4	2.50	4	0.00	4
Pre-veterinary Medicine	1.72	18	1.94	18	1.94	18	1.61	18	0.89	18	0.39	18	0.06	18
Total	2.50	943	2.49	943	2.61	943	1.95	943	1.15	943	0.98	942	0.35	931

Plant Pathology (2.25), and Pre-veterinary Medicine (1.72). All other response groups were in the "strong" category.

The second factor, "Reputation of OSU faculty in your field," had a total response of 943 with a mean of 2.49 for the response. This total response mean was in the "moderate" category. The degree major respondent groups of Agricultural Economics (2.76), Agricultural Education (2.75), Agriculture (General) (3.00), Animal Science (2.60), Horticulture (2.68), and Landscape Architecture (2.03) each had a mean response in the "strong" category. The degree major groups of Biochemistry (1.22) and Forestry (1.43) each had a mean response in the "little" category. All other response groups had a mean response in the "moderate" category.

The third factor, "OSU's agricultural facilities," had a total mean response of 2.61, which is in the "strong" category, for the 943 respondents. The mean response for each of the degree major groups of Agricultural Communication (2.43), Agricultural Engineering (2.34), Biochemistry (1.66), Forestry (1.52), Landscape Architecture (1.84), and Pre-veterinary Medicine (1.94) was in the "moderate" group. All other degree major respondent groups were in the "strong" category.

The fourth factor, "Nearness to home," had a total response of 943 individuals. The mean for the total response was 1.95, which is in the "moderate" category. The Agricultural Education response group had a mean score of 1.46, which was in the "little" category. The mean response for all other degree major response groups was in the "moderate" category.

The fifth factor, "Financial assistance scholarships," received a total response of 943 individuals and a mean of 1.15, which is in the



"little" category. The mean response for the group of Biochemistry (1.88), Entomology (1.86), Horticulture (1.56), Mechanized Agriculture (1.56), and Plant Pathology (1.50) were each in the "moderate" category. All other degree major response groups were in the "little" category.

A total response of 942 individuals was received for the factor "Uncertainty about vocational goals." The total response mean was 0.98, which is in the "little" category. The Plant Pathology respondents had the highest mean score (2.50), which is in the "strong" category. The mean for the Pre-veterinary Medicine respondents was 0.39, which is in the "none" category. Agricultural Communications respondents had a mean score of 1.54, which is in the "moderate" category. All other response groups had mean scores that were in the "little" category.

The seventh factor, "Inability to find a job," had 931 responses, with a mean of 0.35, which is in the "none" category. The degree major response groups of Agricultural Communications (0.61), Agricultural Education (0.53), Agriculture (General) (0.83), and Entomology (0.71) each had a mean response in the "little" category. All other response group means were in the "none" category.

The data for question 26, "Rate the degree of influence each of the following persons had on your decision to earn a degree in agriculture at OSU" are shown in Table XXII. The question had seven persons to which the graduates responded. Each person will be discussed independently.

The first person in the question was "Spouse," which received a response from 937 individuals. "Spouse" had a total response mean

TABLE XXII

DEGREE OF INFLUENCE SELECTED PERSONS HAD ON  
RESPONDENTS' DECISIONS TO EARN A DEGREE  
IN AGRICULTURE AT OSU

Degree Area	Spouse		Parent(s)		High School Counselor		High School Vo-Ag Teacher		4-H or County Extension Agent		Employer		Friend	
	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n	Mean	n
Agricultural Communications	0.00	12	2.00	13	0.31	13	0.75	12	0.61	13	0.31	13	1.31	13
Agricultural Economics	0.25	212	2.01	214	0.37	214	1.29	214	0.46	214	0.53	213	1.59	212
Agricultural Education	0.61	116	2.03	116	0.48	116	2.98	116	0.53	116	0.69	116	1.79	116
Agricultural Engineering	0.14	29	1.96	29	0.65	29	1.28	29	0.34	29	0.31	29	1.00	29
Agriculture (General)	0.29	24	2.33	24	0.58	24	1.50	24	0.46	24	1.17	24	1.42	24
Agronomy	0.45	94	1.87	95	0.48	95	1.02	95	0.25	95	0.84	95	1.54	95
Animal Science	0.23	232	1.89	232	0.40	232	1.13	232	0.62	232	0.65	232	1.29	232
Biochemistry	0.67	9	1.78	9	0.44	9	0.33	9	0.00	9	0.89	9	1.67	9
Entomology	0.00	7	2.71	7	0.14	7	1.29	7	1.14	7	0.86	7	0.86	7
Forestry	0.20	61	1.47	62	0.31	62	0.13	62	0.05	62	0.21	62	0.98	62
Horticulture	0.42	62	1.71	62	0.35	62	0.24	62	0.45	62	0.71	62	1.43	62
Landscape Architecture	0.24	38	1.82	38	0.32	38	0.39	38	0.18	38	0.53	38	1.32	37
Mechanized Agriculture	0.33	18	2.22	18	0.44	18	1.39	18	0.61	18	0.56	18	1.17	18
Plant Pathology	0.00	4	1.00	4	0.00	4	0.00	4	0.00	4	0.00	4	0.50	4
Pre-veterinary Medicine	0.56	18	1.33	18	0.56	18	0.39	18	0.44	18	1.06	18	1.00	18
Total	0.32	937	1.90	942	0.41	942	1.22	941	0.45	942	0.63	941	1.42	939

score of 0.32, which is in the "none" category. The respondents from the degree major areas of Agricultural Education (0.61), Biochemistry (0.67), and Pre-veterinary Medicine (0.56) had mean scores that were in the "little" category. The mean scores for all other degree major areas were in the "none" category.

The second person in the question was "Parent," which had 942 respondents and an overall mean of 1.90, which was in the "moderate" category. The means for the respondents from the degree major groups of Forestry (1.47), Plant Pathology (1.00), and Pre-veterinary Medicine (1.33) were in the "little" category. The mean for the Entomology degree major respondents (2.71) was in the "strong" category. All other degree major respondent groups had means in the "moderate" category.

The "High school counselor" was the third person in the question, for which 942 responses were received. The overall mean score was 0.41, which was in the "none" category. The respondents from the degree major areas of Agricultural Engineering (0.65), Agriculture (General) (0.58), and Pre-veterinary Medicine (0.56) had means for each group that put them in the "little" category." All other degree major response groups were in the "none" category.

The fourth person in the question was "High school vo-ag teacher," which had a total response from 941 individuals. The total response mean was 1.22, which was in the "little" category. The Agricultural Education degree major respondents had a mean of 2.98, which was in the "strong" category. The Agriculture (General) degree major respondents had a mean of 1.50, which was in the "moderate" category. Means from each of the following degree major respondent groups:

Agricultural Communications (0.75), Agricultural Economics (1.29), Agricultural Engineering (1.28), Agronomy (1.02), Animal Science (1.13), Entomology (1.29), and Mechanized Agriculture (1.39) were in the "little" category. The means for all other degree major response groups were in the "none" category.

The "4-H or county extension agent" was the fifth person in the question, for which 942 responses were received. An overall response mean of 0.45 was received, which is in the "none" category. Mean responses for each of the degree major groups of Agricultural Communications (0.61), Agricultural Education (0.53), Animal Science (0.62), Entomology (1.14), and Mechanized Agriculture (1.39) were in the "little" category. Mean responses for each of the other degree major groups was in the "none" category.

The sixth person in the question was "Employer," for which 941 responses were received. A total response mean score of 0.63 was obtained, which was in the "little" category. A mean response for each of the degree major areas of Agricultural Communications (0.31), Agricultural Engineering (0.31), Forestry (0.21), and Plant Pathology (0.00) was received, putting them in the "none" category. The mean response for each of the other degree major areas was in the "little" category.

The seventh person in the question was "Friend," which had a total response mean of 1.42 for the 939 respondents. This total response was in the "little" category. The mean response for each of the degree major groups of Agricultural Economics (1.59), Agricultural Education (1.79), Agronomy (1.54), and Biochemistry (1.67) was in the "moderate" category. The mean response for all other degree major response groups were in the "little" category.

## Responses to Curriculum Data

The purpose of this section is to explain questions 27, 28, and 29 (see Appendix A), which were designed to determine the respondents' views of changes needed in the curriculum for each of the degree major areas in the College of Agriculture at OSU. Question 27 was scored by the use of a frequency distribution. Questions 28 and 29 were scored by a simple count number for each response given.

Question 27 regarding the amount of specialization needed in programs of study in the College of Agriculture at OSU had a response from a total of 910 individuals. The data for this question are shown in Table XXIII. Of the total response, 33.30% indicated that they would "seek more specialization in major field of study," and 26.26% indicated that they would "seek a more general degree with more courses from other areas of agriculture." Forty-four percent of the total response indicated that they would "seek a degree with basically the same amount of specialization."

Over 53% of the respondents from the degree major areas of Agricultural Communications and Mechanized Agriculture indicated that they would "seek more specialization in major field of study." Forty-eight percent of the Agricultural Engineering degree major respondents made this selection. Between 30 and 38% of the respondents from each of the degree major groups of Agricultural Economics, Agricultural Education, Agronomy, Animal Science, and Horticulture made this selection. This same selection was made by less than 18% of the respondents from both of the degree major groups of Landscape Architecture and Pre-veterinary Medicine, and was also chosen by 18 to 29% of the

TABLE XXIII

AMOUNT OF SPECIALIZATION RESPONDENTS WOULD SEEK IN  
THEIR MAJOR FIELDS OF STUDY IF THEY COULD REMAKE  
THEIR DECISIONS REGARDING STUDY IN COLLEGE  
OF AGRICULTURE AT OSU

Degree Major	More Specialization		Less Specialization		Same Degree		Total
	n	%	n	%	n	%	n
Agricultural Communications	7	53.85	1	7.69	5	38.46	13
Agricultural Economics	67	31.60	57	26.89	88	41.51	212
Agricultural Education	40	34.78	30	26.09	45	39.13	115
Agricultural Engineering	12	48.00	6	24.00	7	28.00	25
Agricultural (General)	6	25.00	6	25.00	12	50.00	24
Agronomy	34	37.78	64	33.33	26	28.89	90
Animal Science	79	34.80	63	27.75	85	37.45	227
Biochemistry	2	22.22	1	11.11	6	66.67	9
Entomology	2	28.57	2	28.57	3	42.86	7
Forestry	14	24.56	12	21.05	31	54.39	57
Horticulture	23	37.10	16	25.81	23	37.09	62
Landscape Architecture	6	17.14	8	22.86	21	60.00	35
Mechanized Agriculture	8	53.33	2	13.33	5	33.34	15
Plant Pathology	1	25.00	1	25.00	2	50.00	4
Pre-veterinary Medicine	2	13.33	4	26.67	9	60.00	15
Total	303	33.30	239	26.26	368	40.44	910

respondents from each of the degree major response groups not previously mentioned.

Between 7 and 14% of the respondents from each of the degree major areas of Agricultural Communications, Biochemistry, and Mechanized Agriculture indicated that they would "seek a more general degree with more courses from other areas of agriculture." The Agronomy degree major respondents had a 33.33% response in this category. All other degree major response groups had a response of between 28.57% and 21.05% in this category.

Sixty percent or more of the respondents from each of the degree major areas of Biochemistry, Landscape Architecture, and Pre-veterinary Medicine indicated that they would "seek a degree with basically the same amount of specialization." Plant Pathology and Agriculture (General) degree major areas each had 50% of the responses in this category. Agricultural Engineering and Agronomy degree major respondents had a 28% response in this category. All other degree major response groups had a response rate of from 33.34 to 42.86% for the category.

The responses to question 28, "List all courses that your B.S. degree program did not include that you feel should have been included," are listed in Appendix B. The responses are listed by degree major area and include the courses listed and the number of responses to each course. Only courses that were listed three or more times were included in Appendix B.

Computer Science was listed most often by the respondents with the following degree major areas: Agricultural Communications (3), Agricultural Economics (65), Agricultural Education (11), Agriculture

(General) (3), Agronomy (15), Animal Science (31), Entomology (3), Forestry (7), Horticulture (4), and Landscape Architecture (3). Business was also listed with a high degree of frequency by the following degree major areas: Agricultural Economics (11), Agronomy (5), Animal Science (24), Forestry (10), and Landscape Architecture (7).

Other courses listed in higher numbers by Agricultural Economics degree major respondents were: Finance (20), Accounting (15), Agronomy (13), Animal Science (12), and Business Law (10). A course listed with a higher degree of frequency by the respondents in the Agricultural Education degree major group was "Hands on Livestock Work" (13). Animal Science degree major respondents listed Marketing (16), Finance (11), Artificial Insemination (11), Accounting (10), and Animal Health (11) in higher response to the question. Numerous other responses were listed for the different degree major areas (see Appendix B).

The response to question 29, "List all courses from your B.S. degree program you feel should be dropped from the degree program (courses that were not particularly useful)," can be found in Appendix C. The responses are listed by degree major area, with the courses listed by the respondents and the number of times each course was listed.

Chemistry was listed by most degree major areas in response to question 29. The number of responses of chemistry for each of the degree major areas was as follows: Agricultural Communications (4), Agricultural Economics (21), Agricultural Education (3), Agriculture (General) (3), Agronomy (5), Animal Science (10), and Mechanized Agriculture (3).



Other courses listed by Agricultural Economics degree major respondents were: Statistics (12), Agronomy (12), and Animal Science (7). Courses listed by Agriculture Education degree major respondents included: Humanities (12), Applied Behavioral Sciences in Education (11), and Psychology (6). Agronomy degree major respondents had five responses for each of the courses of: Plant Physiology, Soil Chemistry, Humanities, and Introduction to Agriculture. Common responses by Animal Science degree major respondents were: History (9), General Biology (9), Agriculture Orientation (7), and Psychology (7).

#### Salary Range Data

The purpose of this section of the chapter is to explain the responses to question 30, "New students often want to know what salary range they can hope to be in after completion of a degree in agriculture at OSU. Please help by checking the annual gross salary range (income before taxes, and including commission and profit sharing) for your first and present position after receiving your B.S. degree." The purpose of this question was to collect data which could be used to advise students as to the general salary range of past graduates.

The question was divided into two parts. A salary range for the graduate's first position after completing their B.S. degree in the College of Agriculture at OSU and their present salary range were asked for.

The data for the graduate's first position after receiving their B.S. degree are in Table XXIV. A total of 901 responses were received to this part of the question. Of the total response, 5.88% were in the "below \$5,000" category, and 12.65% were in the "\$5,000-\$9,999"

TABLE XXIV

SALARY RANGE OF RESPONDENTS FOR THEIR  
FIRST POSITIONS AFTER GRADUATION

Degree Major	Below \$5,000		\$5,000- \$9,999		\$10,000- \$14,999		\$15,000- \$19,999		\$20,000- \$24,999		\$25,000- \$29,999		\$30,000- \$34,999		\$35,000- \$39,999		\$40,000- \$44,999		\$45,000- \$49,999		\$50,000 or more		Total
	Frequency Distribution		Frequency Distribution		Frequency Distribution		Frequency Distribution		Frequency Distribution		Frequency Distribution		Frequency Distribution		Frequency Distribution		Frequency Distribution		Frequency Distribution		Frequency Distribution		
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Agricultural Communications	2	15.38	3	23.08	7	53.85	1	7.69	0		0		0		0		0		0		0		13
Agricultural Economics	21	9.77	27	12.56	49	22.79	75	34.88	24	11.16	9	4.19	4	1.86	3	1.40	0		2	0.93	1	0.46	215
Agricultural Education	5	4.27	5	4.27	36	30.77	53	45.30	17	14.53	1	0.86	0		0		0		0		0		117
Agricultural Engineering	3	10.71	2	7.14	1	3.57	10	35.71	10	35.71	0		1	3.58	1	3.58	0		0		0		28
Agriculture (General)	2	8.33	1	4.17	9	37.50	5	20.83	3	12.50	2	8.33	2	8.33	0		0		0		0		24
Agronomy	5	5.68	18	20.4	34	38.64	22	25.00	5	5.68	3	3.41	0		0		1	1.44	0		0		88
Animal Science	9	4.33	24	11.54	68	32.69	70	33.65	22	10.58	6	2.89	5	2.40	1	0.48	0		0		3	1.44	208
Biochemistry	2	28.57	0	0.00	3	46.86	0		2	28.57	0		0		0		0		0		0		7
Entomology	0		2	33.33	4	66.67	0		0		0		0		0		0		0		0		6
Forestry	1	1.69	10	16.95	32	54.24	14	23.73	2	3.39	0		0		0		0		0		0		59
Horticulture	2	3.33	17	28.33	22	36.67	15	25.00	3	5.00	1	1.67	0		0		0		0		0		60
Landscape Architecture	0		4	10.81	20	54.06	9	24.32	4	10.81	0		0		0		0		0		0		37
Mechanized Agriculture	1	5.56	0		8	44.44	7	38.89	2	11.11	0		0		0		0		0		0		18
Plant Pathology	0		1	25.00	2	50.00	1	25.00	0		0		0		0		0		0		0		4
Pre-veterinary Medicine	0		0		6	37.50	6	37.50	4	25.00	0		0		0		0		0		0		16
Total	53	5.88	114	12.65	302	33.52	288	31.97	98	10.88	22	2.44	12	1.33	5	0.56	1	0.11	2	0.22	4	0.44	901

category. The largest number of responses were in the \$10,000-\$14,999" category, with 33.52%. The second most common response from the total respondents was the \$15,000-\$19,000" category, with 31.96%. Other categories and percentages of respondents from the total responses were: "\$20,000-\$24,000" (10.88), "\$25,000-\$29,000" (2.44), and "\$30,000-\$34,999" (1.33). All remaining categories received a total response of less than 1%. Degree major areas with their largest percentage of respondents in the \$10,000-\$14,999" category were: Agricultural Communications (53.85), Agriculture (General) (37.50), Agronomy (38.64), Biochemistry (46.86), Entomology (66.67), Forestry (54.24), Horticulture (36.67), Landscape Architecture (54.06), Mechanized Agriculture (44.44), and Plant Pathology (50.00). Pre-veterinary Medicine had 37.50% in the \$10,000-\$14,999 category, with an equal amount in the "\$15,000-\$19,999" category.

Degree major areas with their largest percentage of respondents in the "\$15,000-\$19,999" category were: Agricultural Economics (34.88), Agricultural Education (45.30), and Animal Science (33.64). Agricultural Engineering had 35.71% in this category, with an equal percentage in the "\$20,000-\$24,999" category.

The data for the second part of question 30, dealing with the present salary range of graduates, can be found in Table XXV. A total of 900 individuals responded to the question. Of the total respondents, 5.67% were in the "Below \$5,000" category, 5.56% were in the "\$5,000-\$9,999" category, 13.44% were in the "\$10,000-\$14,999" category, 23.44% were in the "\$15,000-\$19,999" category, 26.89% were in the "\$20,999-\$24,000" category, 12.78% were in the "\$25,000-\$29,999" category, and less than 5% were in each of the other categories.

TABLE XXV  
SALARY RANGE OF RESPONDENTS IN THEIR PRESENT POSITIONS

		Below \$5,000		\$5,000– \$9,999		\$10,000– \$14,999		\$15,000– \$19,999		\$20,000– \$24,999		\$25,000– \$29,999		\$30,000– \$34,999		\$35,000– \$39,999		\$40,000– \$44,999		\$45,000– \$49,999		\$50,000 or more		Total
Degree	Major	Frequency Distribution																						
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Agricultural	Communications	1	8.33	1	8.33	5	41.67	2	16.67	2	16.67	1	8.33	0		0		0		0		0		12
Agricultural	Economics	21	9.77	7	3.26	12	5.58	48	22.33	56	26.05	33	15.35	12	5.58	7	3.26	4	1.86	4	1.86	11	5.12	215
Agricultural	Education	5	4.27	1	0.85	8	6.84	46	39.32	44	27.61	8	6.84	3	2.56	1	0.85	0		0		1	0.85	117
Agricultural	Engineering	3	10.71	1	3.57	2	7.14	3	10.71	4	14.29	8	28.57	2	7.14	2	7.14	1	3.57	1	3.57	1	3.57	28
Agriculture	(General)	1	4.17	2	8.33	6	25.00	4	16.67	2	8.33	3	12.50	4	16.67	0		0		0		2	8.33	24
Agronomy		6	6.82	8	9.09	10	11.36	19	21.59	27	30.68	9	10.23	5	5.68	3	3.41	0		0		1	1.14	88
Animal Science		8	3.85	13	6.25	31	14.90	42	20.19	57	27.40	31	14.90	11	5.29	5	2.40	0		2	0.96	8	3.85	208
Biochemistry		1	14.29	0		2	28.57	1	14.29	1	14.29	1	14.29	0		0		0		0		1	14.29	7
Entomology		0		2	33.33	2	33.33	0		1	16.67	1	16.67	0		0		0		0		0		6
Forestry		1	1.69	6	10.17	18	30.51	14	23.73	14	23.73	4	6.78	1	1.69	0		1	1.69	0		0		59
Horticulture		3	5.00	7	11.67	16	26.67	19	31.67	10	16.67	4	6.66	1	1.66	0		0		0		0		60
Landscape Architecture		1	2.70	1	2.70	3	8.11	10	27.03	16	43.24	2	5.40	2	5.40	1	2.70	0		1	2.70	0		37
Mechanized Agriculture		0		1	5.56	1	5.56	3	16.67	3	16.67	6	33.33	0		2	11.11	2	11.00	0		0		18
Plant Pathology		0		0		3	75.00	0		1	25.00	0		0		0		0		0		0		4
Pre-veterinary Medicine		0		0		2	12.50	0		4	25.00	4	25.00	1	6.25	0		1	6.25	2	12.50	2	12.50	16
Total		51	5.67	50	5.56	121	13.44	211	23.44	242	26.89	115	12.78	42	4.67	22	2.44	9	1.00	10	1.11	27	3.00	900

The largest percentage of Agricultural Communications (41.67), Agriculture (General) (25.00), Biochemistry (28.57), Forestry (30.51), and Plant Pathology (75.00) degree major respondents were in the "\$10,000-\$14,999" category. Entomology had 33.33% in this category, with an equal percentage in the "\$5,000-\$9,999" category.

The largest percentage of the Agricultural Education (39.32) and Horticulture (31.67) degree major respondents were in the "\$15,000-\$19,999" category. The largest percentage of the degree major respondents from Agricultural Economics (26.05), Agronomy (30.68), Animal Science (27.40), and Landscape Architecture (43.24) were in the "\$20,000-\$24,999" category.

The largest percentage of the Agricultural Engineering (28.57) and Mechanized Agriculture (33.33) were in the "\$25,000-\$29,999" category. Pre-veterinary Medicine had a 25.00% response in this category, with an equal response to the "\$20,000-\$24,999" category.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

The purpose of this chapter is to present a summary of the study and findings related to the purpose and objectives. Through a detailed inspection of these topics, conclusions and recommendations were presented which were based upon a careful analysis of the data.

#### Purpose of the Study

The purpose of this study was to gather specific information from former students of the College of Agriculture at OSU about their current employment status, skills needed in their employment, and the quality and adequacy of training received from their academic preparation while attending OSU.

#### Objectives of the Study

The objectives of the study were as follows:

1. To identify current positions and salary ranges of the College of Agriculture graduates.
2. To determine the degree of relationship of the respondents' Bachelor of Science degrees and their area of employment since receiving the degree.

3. To determine the adequacy of training, counseling, and placement services received by College of Agriculture graduates, as perceived by past College of Agriculture graduates.

4. To determine the adequacy of instructional facilities and equipment used in the educational training of College of Agriculture graduates, as perceived by past College of Agriculture graduates.

5. To determine the degree of influence selected factors and people had on the respondent's decision to earn a degree in agriculture at OSU.

### Design and Conduct of the Study

A questionnaire was utilized to collect data for the study. The questionnaire was developed with the aid of the OSU College of Agriculture faculty, and was mailed to a population of 1,525 (B.S. degree graduates of the College of Agriculture at OSU for the years 1979 through 1983). After two mailings of the questionnaire, a total of 950 responses were received, for a response rate of 62%.

### Major Findings of the Study

The major findings of the study were divided into seven sections. They were as follows:

1. Characteristics of Respondents
2. Employment Status of Respondents
3. Effectiveness and Quality of Instruction, Equipment, and Facilities
4. Effectiveness and Quality of Job Placement and Guidance Programs

5. Factors That Influenced Respondent's Decision to Pursue a Degree in Agriculture at OSU
6. Curriculum Changes Needed as Perceived by Respondents
7. Salary History of Respondents

#### Characteristics of Respondents

Seventy percent of the respondents of this study were degree majors of Agricultural Economics, Agricultural Education, Agronomy, or Animal Science. All other degree major areas were each less than 7% of the total response.

The largest percentage of response, by degree year, was received from the 1979 graduates, with 26%. The years 1980 and 1982 had 20.84% and 20.21%, respectively.

Additional bachelor degrees had been worked on by 31 respondents. In addition, masters degrees had been worked on by 198 respondents and doctoral degrees by 108 respondents.

#### Employment Status of Respondents

Initial contact with first employer was made by 20.26% of the respondents through either departmental arranged interview, Agricultural Placement Office, or University Placement Office. Initial contact was made by 62.64% of the respondents on their own initiative or by other methods than those listed on the questionnaire.

One full-time position had been held by 51.98% of the respondents since they had received their B.S. degree. Of the total respondents, 27.87% had held two full-time positions since receiving their B.S. degree.



Fifty percent or more of the respondents from each of the degree major areas (except Biochemistry and Plant Pathology) indicated that the first full-time job after receiving their B.S. degree was in their field of college study or closely related to their field of college study. A small change to jobs less related to their field of college study was indicated by most degree major respondent groups when evaluating their present employment, as can be seen in Table XXVI.

Effectiveness and Quality of Instruction,  
Equipment, and Facilities

The respondents from all degree major areas (except Entomology and Plant Pathology) rated the quality of instructors in their major field of study as "good." Entomology and Plant Pathology were rated in the "average" category by the respondents, as shown in Table XXVII.

The quality of course content (usefulness and quality of information) of courses in the respondent's major field of study was rated "average" by respondents from the degree major areas of Agricultural Communications, Agricultural Engineering, Entomology, and Plant Pathology. All other degree major respondent groups rated the quality of course content in their major area of study in the "good" category.

The quality of equipment and facilities used in instruction in the respondent's major field of study was rated as "average" by Biochemistry, Forestry, Landscape Architecture, and Plant Pathology degree major groups. All other degree major respondent groups had a mean in the "good" category for this question.

The effectiveness of their total B.S. degree program was rated as "average" as preparation for their first position after receiving the

TABLE XXVI  
SUMMARY OF RELATIONSHIP OF DEGREE AREA TO  
FIRST AND PRESENT EMPLOYMENT

Degree Major	Employment was in Field of College Study		Employment was Closely Related to Field of College Study		Employment was Some- what Related to Field of College Study		Employment had Little Relationship to Field of College Study		Employment had No Relationship to Field of College Study	
	First %	Present %	First %	Present %	First %	Present %	First %	Present %	First %	Present %
Agricultural Communications	28.57	7.14	21.42	7.14	7.14	14.29	14.29	21.43	28.57	50.00
Agricultural Economics	30.58	26.92	26.70	24.52	25.24	22.60	6.31	14.42	11.17	11.54
Agricultural Education	63.72	56.14	12.39	14.03	10.62	15.79	7.08	9.65	6.19	4.39
Agricultural Engineering	42.86	25.00	25.00	25.00	25.00	25.00	7.14	17.86	0.00	7.14
Agriculture (General)	45.83	45.83	25.00	16.67	8.33	16.67	8.33	8.33	12.50	12.50
Agronomy	53.41	55.06	22.73	20.22	9.09	10.11	5.68	7.87	9.09	6.74
Animal Science	42.59	40.62	22.22	23.21	12.96	14.29	8.80	8.04	13.43	13.84
Biochemistry	22.22	42.86	22.22	28.57	22.22	14.29	22.22	0.00	11.12	14.29
Entomology	66.66	0.00	16.67	0.00	16.67	57.14	0.00	42.86	0.00	0.00
Forestry	41.67	28.81	8.33	15.25	8.33	11.86	15.00	13.56	26.67	30.51
Horticulture	60.66	51.67	26.23	11.67	3.28	5.00	3.28	8.33	6.55	23.33
Landscape Architecture	73.68	76.32	18.42	5.26	5.26	5.26	0.00	5.26	2.63	7.89
Mechanized Agriculture	33.33	33.33	16.67	22.22	27.78	22.22	16.67	0.00	5.55	22.22
Plant Pathology	33.33	0.00	0.00	0.00	33.33	75.00	0.00	0.00	33.34	25.00
Pre-veterinary Medicine	70.59	88.23	23.53	11.77	5.88	0.00	0.00	0.00	0.00	0.00
Total	46.23	42.15	21.17	19.43	14.30	15.37	7.43	9.99	10.87	13.06

TABLE XXVII  
SUMMARY OF PERCEPTIONS OF INSTRUCTIONAL PROGRAM  
QUALITY AND EFFECTIVENESS

Degree Major	Instructors		Course Content		Equipment and Facilities		Preparation for First Position		Benefit in Career	
	Mean	Category	Mean	Category	Mean	Category	Mean	Category	Mean	Category
Agricultural Communications	3.50	Good	3.21	Average	4.00	Good	3.07	Average	3.07	Mod. benefit
Agricultural Economics	4.21	Good	3.98	Good	3.98	Good	3.73	Good	3.50	Much benefit
Agricultural Education	3.92	Good	3.66	Good	4.11	Good	3.69	Good	3.67	Much benefit
Agricultural Engineering	3.76	Good	3.38	Average	3.86	Good	3.48	Average	3.34	Mod. benefit
Agriculture (General)	4.00	Good	3.75	Good	3.83	Good	3.61	Good	3.25	Mod. benefit
Agronomy	3.74	Good	3.64	Good	3.53	Good	3.36	Average	3.50	Much benefit
Animal Science	4.10	Good	3.93	Good	3.84	Good	3.57	Good	3.47	Mod. benefit
Biochemistry	4.00	Good	4.11	Good	3.22	Average	3.78	Good	4.00	Much benefit
Entomology	3.43	Average	3.29	Average	3.57	Good	3.29	Average	3.43	Mod. benefit
Forestry	3.76	Good	3.85	Good	3.47	Average	3.54	Good	3.38	Mod. benefit
Horticulture	4.24	Good	3.97	Good	3.97	Good	3.60	Good	3.57	Much benefit
Landscape Architecture	4.13	Good	3.89	Good	3.10	Average	3.71	Good	3.89	Much benefit
Mechanized Agriculture	4.44	Good	4.00	Good	4.22	Good	3.72	Good	3.56	Much benefit
Plant Pathology	3.00	Average	2.50	Average	3.25	Average	2.75	Average	3.00	Mod. benefit
Pre-veterinary Medicine	3.82	Good	3.82	Good	3.88	Good	3.81	Good	3.50	Much benefit
Total	4.02	Good	3.83	Good	3.83	Good	3.60	Good	3.51	Much benefit

degree by the degree major respondent groups of Agricultural Communications, Agricultural Engineering, Agronomy, and Entomology. All other respondent groups rated their B.S. degree program as "good" in this regard, as can be seen in Table XXVII.

Table XXVII also shows that about one-half of the degree major respondent groups indicated that training received in their B.S. degree had been of "moderate benefit" to them in their career. The other one-half indicated "much benefit" in this area.

As can be seen in Table XIV (Chapter IV), the respondents from most degree major groups indicated that if they could remake their decision regarding study in the College of Agriculture at OSU they would seek the same degree or would seek a degree in a different area of agriculture at OSU. However, 50% of the respondents from the degree major area of Plant Pathology indicated that they would seek a degree in an area outside of agriculture.

#### Effectiveness and Quality of Job Placement and Guidance Programs

Several of the degree major respondent groups indicated that job placement help given to them by their major department was "inadequate," while most departments and the College of Agriculture total was rated "adequate" in this area.

Most respondents were aware of some or all of the services provided by the College of Agriculture Job Placement Office at OSU. A rating of "adequate" was given by the respondents to the assistance they received from the College of Agriculture Job Placement Office.

The respondents also rated the quality of facilities used in job placement by the College of Agriculture Placement Office as "average."

The total mean response of 3.30 for rating of the quality of career guidance and advisement received by respondents in their major department was in the "adequate" category. All groups except Plant Pathology (2.00), which was in the "inadequate" category, were in the "adequate" or "more than adequate" category.

All degree major respondent groups except Agricultural Education, Agriculture (General), and Pre-veterinary Medicine indicated that a summer intern program (work experience) would have been of "much benefit" to them in making a career choice. Those degree major respondent groups not in the "much benefit" category were in the "moderate benefit" category.

#### Factors That Influenced Respondent's Decision to Pursue a Degree in Agriculture at OSU

As can be seen in Table XXI (Chapter IV), the "Overall prestige of OSU" and "OSU's agricultural facilities" each had a "strong" degree of influence on the respondent's decision to earn a degree in agriculture at OSU. "Reputation of OSU faculty in their field" and "Nearness to home" had a "moderate" degree of influence on the respondents' decisions to earn a degree in agriculture at OSU, while "Financial assistance" and "Uncertainty about vocational goals" had "little" influence on this decision. Inability to find a job had no influence on the total respondents' decisions to seek a degree in agriculture at OSU.

"Spouse," "High school counselor," and "4-H or county extension agent" had "no" influence on the total respondents' decisions to earn a degree in agriculture at OSU. "High school vo-ag teacher," "Employer," and "Friend" had "little" influence on the respondents' decisions to earn a degree in agriculture at OSU. However, the "High school vo-ag teacher" had a "strong" degree of influence on Agricultural Education degree major respondents' decisions to earn a degree in agriculture at OSU, while "no" influence was shown by some degree major area respondents. Parents had a "moderate" degree of influence on the respondents' decisions to earn a degree in agriculture at OSU.

Curriculum Changes Needed as Perceived  
by Respondents

Over 50% of the respondents from Agricultural Communications and Mechanized Agriculture would seek a degree with more specialization in their major field of study if they could reconsider their decision regarding study in the College of Agriculture. Of the Agricultural Engineering degree major respondents, 48% would seek a degree with more specialization.

Most degree major respondent groups had the highest percentage who indicated that they would seek a degree with basically the same amount of specialization if they could reconsider their decision regarding study in the College of Agriculture at OSU. Computer courses were most often listed as courses needed in B.S. degree programs by respondents.

### Salary History of Respondents

The salary range for all degree major respondent areas for their first position after receiving their B.S. degrees was varied, with the majority of the total respondents being in the "\$10,000-\$14,999" and "\$15,000-\$19,999" categories.

Present salary ranges for respondents was more varied for present employment than for the respondent's first job after receiving their B.S. degrees. The majority of the respondents' present salaries was in the "\$15,000-\$19,999" and "\$20,000-\$24,999" categories.

### Conclusions

Through a careful analysis of the data and findings, the following conclusions were made:

1. Over 20% of the respondents made initial contact with their first employer through methods provided by the College of Agriculture and the University, indicating that these are useful methods for graduates to make contact with employers and that the College of Agriculture and the University provide a large amount of assistance to graduates in making contact with employers. Over half of the respondents made initial contact with their first employer by methods other than those provided by the College of Agriculture and the University, indicating that this is an area where possible improvement can be made.

2. Since it was indicated that most graduates find employment that is closely related to their field of college study, this would seem to indicate that the graduates were trained in areas for which

employment was available and that the training received by the graduates was adequate to secure employment in their chosen area of agriculture.

3. The perceived quality of instruction in all degree major areas (except Entomology and Plant Pathology), was rated as good. Entomology and Plant Pathology degree major areas had an average perceived quality, which indicated that methods of instruction were adequate, but some improvement in instructional quality could be made.

4. Since most degree majors perceived course content quality as good, it would seem that course content quality for the College of Agriculture was adequate; however, Agricultural Communications, Agricultural Engineering, and Plant Pathology degree majors perceived course content as only average, indicating that improvement might be made in these areas. Plant Pathology degree majors perceived course content as average quality. All other degree majors perceived course content as good quality.

5. Most degree major areas had equipment and facilities used in the training of undergraduate students that was perceived to be of good quality, indicating that present equipment and facilities were adequate in quality. However, the degree major areas of Biochemistry, Forestry, Landscape Architecture, and Plant Pathology had equipment and facilities that were perceived to be of only average quality, indicating that improvement might be made in these areas.

6. A majority of the degree major areas perceived the training received in their degree program as good in effectiveness as preparation for their first employment after receiving the degree. However, Agricultural Communications, Agricultural Engineering, Agronomy,



Entomology, and Plant Pathology degree majors perceived the quality to be only average in this regard, indicating that improvement might be made in these areas.

7. If graduates from the College of Agriculture at OSU could remake their decision regarding study in the College of Agriculture, one-half said they would seek the same degree at OSU again, indicating that most graduates were satisfied with their decision of a major in agriculture at OSU.

8. Most major department in the College of Agriculture at OSU were perceived to do an average quality job in helping students with job placement, which indicates that the departments are adequate in this regard, with some possible improvement warranted.

9. Over 90% of the graduates of the College of Agriculture were aware of the College of Agriculture Job Placement Office at OSU and rated it as doing an adequate job, thus indicating that the office was being operated and managed properly, but could possibly have some improvements made in its operations and management. Forty percent of the graduates did not seek help from the office, indicating a need for improvement in increasing the number of students which would seek assistance.

10. The College of Agriculture job placement facilities were perceived to be of only average quality, indicating that the facilities are adequate, but some improvement might be needed.

11. Since career guidance and advisement received by students of the degree majors of Agricultural Economics, Biochemistry, Horticulture, and Pre-veterinary Medicine are perceived to be of more than adequate quality and all other degree major areas were perceived to be

adequate in this regard, only small amounts of improvement might be needed in career guidance and advisement programs.

12. A summer intern program (work experience) was indicated as a need in the College of Agriculture, as it was perceived to be of much benefit in making a career choice by all degree majors except Agricultural Education, Agriculture (General), and Pre-veterinary Medicine, for which it was perceived to be of moderate benefit.

13. The overall prestige of OSU in general and OSU's agricultural facilities were indicated to be useful in recruiting students, as they were perceived to have a strong influence on students' decisions to earn degrees in agriculture at OSU. The reputation of the OSU faculty and OSU's nearness to students' homes were perceived to have a moderate degree of influence, and financial assistance and uncertainty about vocational goals were perceived to have little influence.

14. It was indicated that contact with the parents of prospective students would be effective as a means of recruiting students into the College of Agriculture, as parents were rated the most influential of the persons studied on the students' decisions to seek a degree in agriculture at OSU. High school vo-ag teachers, employers, and friends were perceived to have less influence, and spouses, high school counselors, and 4-H county extension agents were perceived to have no influence.

15. Since high school vo-ag teachers were perceived to have a strong degree of influence on Agricultural Education majors' decisions to seek a degree in agriculture, it would indicate that contact with the high school vo-ag teacher should be useful in recruiting Agricultural Education students.

16. Degree majors of Agricultural Communications, Agricultural Engineering, and Mechanized Agriculture perceived the need for more specialization in their major field of study, thus indicating a need for possible changes in these degree programs.

17. More computer courses were perceived to be needed in the curriculum of most degree majors in agriculture at OSU, indicating a need for possible degree program course changes.

18. Since the salary range for most graduates was between \$10,000 and \$19,999 for their first employment after graduation and between \$15,000 and \$24,999 for their present employment, it is indicated that salary range information would be useful in recruitment and advisement of students.

#### Recommendations

As stated in Chapter II, a follow-up of graduates should be used as a part of the total evaluation for a program. This follow-up should be utilized when making decisions regarding the College of Agriculture at OSU. As a result of the conclusions which were drawn from the analysis and interpretation of data, the following recommendations are made:

1. Since most graduates indicated that they made initial contact with their first employer by methods other than those provided by the College of Agriculture and the University, it is recommended that the College of Agriculture expand the placement program to bring its students into contact with a larger number of possible employers.

2. Since the quality of instruction for the degree major areas of Entomology and Plant Pathology was only rated average, an effort

should be made to continue to improve the quality of instruction in the College of Agriculture. All other degree major areas had quality of instruction that was rated as good, indicating a program of visitation by Entomology and Plant Pathology instructors with instructors from other departments to exchange ideas and methods to improve instruction might be useful.

3. Since course content for the degree major areas of Agricultural Communications, Agricultural Engineering, and Plant Pathology was rated as only average, an effort should be made to continue to improve the usefulness and quality of course content in these degree areas, as well as all other degree programs in the College of Agriculture.

4. Since the equipment and facilities in the training of undergraduate students in the degree major areas of Biochemistry, Forestry, Landscape Architecture, and Plant Pathology was rated only average in quality, efforts should be made to improve the equipment and facilities in these departments, along with the continued improvement and updating of such equipment in all other departments.

5. Since the training received by the degree majors of Agricultural Communications, Agricultural Engineering, Agronomy, Entomology, and Plant Pathology was rated only average in effectiveness as preparation for their first employment after graduation, these programs should be reviewed to determine if changes could improve their preparation for first employment. However, it is recognized that a portion of the lack of effectiveness as preparation for employment may be due to the lack of the graduate finding employment related to their degree area.

6. Although job placement may not be recognized as a major responsibility of the departments in the College of Agriculture, most were rated as doing an adequate job in this respect. Since the departments in the College of Agriculture are a valuable source of employer contact for graduates, it is recommended that these efforts be continued, with possible increased emphasis.

7. The College of Agriculture Job Placement Office was rated adequate in its performance, and 60% of the graduates utilized its services, indicating a strong placement service. However, 40% of the graduates did not seek help from the office, indicating that efforts could be made by the office to aid more of the graduates in securing employment.

8. Based on the data indicating that the College of Agriculture job placement facilities are of only average quality, steps should be taken to improve the quality of the facilities.

9. Since the career guidance and advisement received by students of the degree majors of Agricultural Economics, Biochemistry, Horticulture, and Pre-veterinary Medicine was rated as more than adequate in quality, a program might be implemented so that these departments could assist the other departments in the improvement of their career guidance and advisement programs. All degree major areas not listed had career guidance and advisement received by students that was adequate in quality.

10. An increase in summer intern programs should be implemented into the degree programs of the College of Agriculture, since it was indicated to be of much benefit in making a career choice by all

degree major groups except Agricultural Education, Agriculture (General), and Pre-veterinary Medicine.

11. Efforts should be increased for making the general public and prospective students aware of the prestige of OSU and OSU's agricultural facilities, as they have a strong degree of influence on student decisions to earn a degree in agriculture at OSU.

12. Efforts should be made to inform the parents of prospective students of the quality of programs in the College of Agriculture and employment opportunities in agriculture. Parents have the highest level of influence of the persons studied on the student's decision to seek a degree in agriculture at OSU.

13. Since high school vo-ag teachers have a strong degree of influence on Agricultural Education majors' decision to seek a degree in agriculture at OSU, the Agricultural Education Department should seek to keep close contact with vo-ag teachers for the purpose of recruiting students.

14. Since the graduates in the degree major areas of Agricultural Communications, Agricultural Engineering, and Mechanized Agriculture indicated a need for more specialization in their major field of study, efforts should be taken to further evaluate these degree programs and to determine what changes might be needed so that they might better serve the needs of students.

15. Based on the indication that more computer courses are needed in the curriculum of degree programs in the College of Agriculture at OSU, further efforts should be made to evaluate the needs for computer courses and incorporate these needs into the degree programs. It is recognized that much has already been done to increase the level of

computer training for students in the College of Agriculture since the graduation of the population for this study.

16. The salary range information obtained in this study should be used in student recruitment and advisement, since the salary ranges for most graduates were in the \$10,000-\$19,999 range for their first employment after graduation and in the \$15,000-\$24,999 range for their present employment.

17. Since some changes in the College of Agriculture instructional program were suggested by the data from this study, it is recommended that more research be conducted to specifically determine how improvements can be made in each degree major area regarding instruction, course content, equipment and facilities, job placement, career guidance, and student recruitment in order to continue to maintain their high quality and to aid continued improvement.

## BIBLIOGRAPHY

- Boydstun, D. H. "Former Students' Opinions Concerning the Relation of Their College Training at Cameron State Agricultural College in the Division of Agriculture to Their Careers." (Unpub. M.S. thesis, Oklahoma State University, 1961.)
- Brantner, S. T. "Follow-up Studies. Who Benefits?" American Vocational Journal, 1975, 50, pp. 26-27.
- Brown, H. S. and Moyhew, L. B. American Higher Education. New York: Center for Applied Research in Education, 1965.
- Bryan, J. E. "A Survey of the Bachelor of Science Graduates in Agricultural Education at the University of Idaho From 1934 to 1954, Inclusive." (Unpub. M.S. thesis, University of Idaho, 1956.)
- Crane, T. R. The Colleges and the Public, 1787-1862. New York: Columbia University, Bureau of Publications, 1963.
- Cranton, P. A. and Legge, L. H. "Program Evaluation in Higher Education." Journal of Higher Education, 1978, 49, pp. 464-471.
- Cronbach, L. J., Ambron, S. R., Dornbusch, S. M., Hess, R. D., Hornik, R. C., Phillips, D. C., Walker, D. F., and Weiner, S. S. Toward Reform of Program Evaluation. San Francisco: Jossey-Bass, 1980.
- Darcey, C. L. "Follow-up of Mechanized Agriculture Graduates at Texas A & M University." (Unpub. Ed.D. dissertation, Oklahoma State University, 1980.)
- Fain, C. N. "Professional Preparation and Employment Status of Selected Oklahoma State University Home Economics Graduates: A Follow-up Study." (Unpub. Ph.D. dissertation, Oklahoma State University, 1981.)
- Gilli, A. C. "Follow-up Means Feedback." American Vocational Journal, 1975, 50, p. 25.
- Holzemer, W. L. "A Protocol for Program Evaluation." Journal of Medical Education, 1976, 51, pp. 101-108.
- Isaac, S. and Michael, W. B. Handbook in Research and Evaluation, 3rd ed. San Diego: Edits, 1983.



- Johnson, B. A., Jr. "A Follow-up Study of 1973-74 Oklahoma Vocational Agriculture Completers." (Unpub. Ed.D. dissertation, Oklahoma State University, 1980.)
- Maner, B. "A Survey of the Fall Quarter 1967 Through the Summer Quarter 1972 Graduates of the University of Tennessee College of Agriculture." (Unpub. Ph.D. dissertation, University of Tennessee, 1975.)
- McComas, J. D. "Accountability, How Do We Measure Up?" Journal of Educational Technology, 1971, 11, p. 31.
- McCoy, J. S. "Graduates' Perception Regarding Objectives and Goals for the College of Agriculture." (Unpub. Ph.D. dissertation, Pennsylvania State University, 1983.)
- McKinney, F. L. and Oglesby, C. "Developing and Conducting Follow-up Studies of Former Students." ERIC Document Reproduction Service, No. ED 056240, 1971.
- Miller, W. W. "Master of Agriculture and Master of Science Graduates of the College of Agriculture at Texas A & M University, 1974-1978: A Follow-up With Comparison of Selected Factors." (Unpub. Ph.D. dissertation, Texas A & M University, 1980.)
- Nelson, J. L. "Follow-up Study of Graduates." Improving College and University Teaching, 1964, 12, pp. 111-112.
- Nippo, M. M. "Ag Alumni Survey Depicts Undergraduate Educational Needs." NACTA Journal, 1983, 27, pp. 13-16.
- Patton, M. Q. Creative Evaluation. London: Gage, 1981.
- Perkins, J. A. The University in Transition. Princeton, New Jersey: Princeton University Press, 1966.
- Powers, B. G. "Former Students' Opinions Concerning the Relation of Their College Training to Their Careers." (Unpub. M.S. thesis, Oklahoma State University, 1958.)
- Randle, T. E. "Perceptions of Oklahoma Residents Toward the Instructional Function of the Oklahoma State University Division of Agriculture." (Unpub. Ed.D. dissertation, Oklahoma State University, 1981.)
- Rhea, M. B. "Present Status and Opinions of Graduates Granted Bachelor of Science Degrees Since 1932 in Agriculture Curricula at Iowa State College." (Unpub. Ph.D. dissertation, Iowa State University, 1953.)
- Ross, E. D. Democracy's College: The Land-Grant Movement in the Formative Stage. Ames, Iowa: Iowa State College Press, 1942.

Rulon, P. R. "The Founding of the Oklahoma Agricultural and Mechanical College, 1890-1908." (Unpub. Ph.D. dissertation, Oklahoma State University, 1968.)

SPSSX User's Guide. New York: McGraw Hill, 1983.

U.S. Department of Agriculture. Graduates of Higher Education in the Food and Agricultural Sciences: An Analysis of Supply/Demand Relationships, Vol. I. (Miscellaneous Pub. No. 1385.) Washington, D.C.: U.S. Government Printing Office, 1980.

Wentling, T. L. Evaluating Occupational Education and Training Programs. Boston: Allyn and Bacon, 1980.

## APPENDIXES

APPENDIX A  
QUESTIONNAIRE

1. Check the major(s) area(s) of your Bachelor's of Science (B.S.) Degree received from Oklahoma State University (OSU). (1-2)
  - (01) ☐ Agricultural Communications
  - (02) ☐ Agricultural Economics
  - (03) ☐ Agricultural Education
  - (04) ☐ Agricultural Engineering
  - (05) ☐ Agriculture (General)
  - (06) ☐ Agronomy
  - (07) ☐ Animal Science
  - (08) ☐ Biochemistry
  - (09) ☐ Entomology
  - (10) ☐ Forestry
  - (11) ☐ Horticulture
  - (12) ☐ Landscape Architecture
  - (13) ☐ Mechanized Agriculture
  - (14) ☐ Plant Pathology
  - (15) ☐ Pre-veterinary Medicine
  - (16) ☐ Other (specify) \_\_\_\_\_
2. In what year and semester did you receive your B.S. degree from OSU?
 

(3)	(4)
Year - (1) 1979 _____	Semester - (1) Spring _____
(2) 1980 _____	(2) Fall _____
(3) 1981 _____	(3) Summer _____
(4) 1982 _____	
(5) 1983 _____	
3. Have you worked on an advanced or other degree since completing your B.S. Degree at OSU? (5)
  - (1) ☐ yes (If yes go to Question 4)
  - (2) ☐ no (If no go to Question 7)
4. If yes, what was your major area of study?
 

\_\_\_\_\_
5. Please give the name of the institution where work on the additional degree has, or is being done.
 

\_\_\_\_\_
6. What degree have you worked on since completing your B.S. at OSU? (6)
  - (1) ☐ Additional Bachelor's
  - (2) ☐ Master's
  - (3) ☐ Doctorate
  - (4) ☐ Other (specify) \_\_\_\_\_

Has the degree been completed? (7)

  - (1) ☐ Yes
  - (2) ☐ No
7. How did you make initial contact with your first employer after receiving your B.S. Degree? (8)
  - (1) ☐ Department arranged interview
  - (2) ☐ Agricultural placement office
  - (3) ☐ University placement office
  - (4) ☐ Through a friend
  - (5) ☐ Through a relative
  - (6) ☐ On own initiative
  - (7) ☐ Other (specify) \_\_\_\_\_
8. Check the statement which most closely applies to your first full-time job after receiving your B.S. Degree at OSU? (9)
  - (1) ☐ It was in the field of my college study
  - (2) ☐ It was closely related to my field of college study
  - (3) ☐ It was somewhat related to field of college study
  - (4) ☐ It had little relationship to my field of college study
  - (5) ☐ It had no relationship to my field of college study
9. How many full-time positions have you had since receiving your B.S. Degree from OSU? (10)
  - (1) ☐ None
  - (2) ☐ One
  - (3) ☐ Two
  - (4) ☐ Three
  - (5) ☐ Four or more
10. How many years (nearest whole number) have you worked for your present employer? (11)
  - (1) ☐ One
  - (2) ☐ Two
  - (3) ☐ Three
  - (4) ☐ Four or more
11. What is the name of your present employer (company, organization, individual or self)?
 

\_\_\_\_\_
12. Check the statement which most closely applies to your present position. (12)
  - (1) ☐ It is in the field of my college study
  - (2) ☐ It is closely related to my field of college study
  - (3) ☐ It is somewhat related to my field of college study
  - (4) ☐ It has little relationship to my field of college study
  - (5) ☐ It has no relationship to my field of college study
13. In general, how would you rate the quality of instructors in your major area of study? (13)
  - (1) ☐ Poor
  - (2) ☐ Fair
  - (3) ☐ Average
  - (4) ☐ Good
  - (5) ☐ Excellent
14. In general, how would you rate the course content (usefulness and quality of information) of courses in your major field of study? (14)
  - (1) ☐ Poor
  - (2) ☐ Fair
  - (3) ☐ Average
  - (4) ☐ Good
  - (5) ☐ Excellent

Why? \_\_\_\_\_
15. In general, how would you rate the quality of equipment and facilities used in instruction in your major area of study at OSU? (15)
  - (1) ☐ Poor
  - (2) ☐ Fair
  - (3) ☐ Average
  - (4) ☐ Good
  - (5) ☐ Excellent

What improvements, if any, do they need?

\_\_\_\_\_
16. How would you rate the effectiveness of your total B.S. Degree program as preparation for your first position after receiving your degree? (16)
  - (1) ☐ Poor
  - (2) ☐ Fair
  - (3) ☐ Average
  - (4) ☐ Good
  - (5) ☐ Excellent

17. In general, how much benefit has your training received in your B.S. Degree been to you in your career? (17)

(1) ☐ No benefit  
 (2) ☐ Little benefit  
 (3) ☐ Moderate benefit  
 (4) ☐ Much benefit  
 (5) ☐ Great benefit

Why? \_\_\_\_\_

18. If you could remake your decision regarding study in the College of Agriculture at OSU, what would you do? (18)

(1) ☐ Seek the same degree at OSU  
 (2) ☐ Seek a degree in a different area of agriculture at OSU. If so, what area? \_\_\_\_\_  
 (3) ☐ Seek a degree in agriculture at another institution. If so, what institution? \_\_\_\_\_  
 (4) ☐ Seek a degree in an area outside agriculture. If so, what area? \_\_\_\_\_  
 (5) ☐ Choose not to seek a degree  
 (6) ☐ Other (specify) \_\_\_\_\_

19. How would you rate the job placement help given to you by your major department at OSU? (19)

(1) ☐ Very inadequate  
 (2) ☐ Inadequate  
 (3) ☐ Adequate  
 (4) ☐ More than adequate  
 (5) ☐ Very adequate  
 (6) ☐ Did not seek help

How could job placement help, from your department, be improved?  
 \_\_\_\_\_

20. How would you rate your degree of awareness of the College of Agriculture placement office at OSU? (20)

(1) ☐ Aware of all of its services (job placement, resume workshop, training in job skills, job search for alumni)  
 (2) ☐ Aware for some of its services  
 (3) ☐ Aware that it existed but not aware of its services  
 (4) ☐ Not aware of its existence

21. How would you rate the job placement help given to you by the College of Agriculture placement office at OSU? (21)

(1) ☐ Very inadequate  
 (2) ☐ Inadequate  
 (3) ☐ Adequate  
 (4) ☐ More than adequate  
 (5) ☐ Very adequate  
 (6) ☐ Did not seek help

22. In general, how would you rate the quality of facilities used in job placement (including job interview facilities) by the College of Agriculture placement office at OSU? (22)

(1) ☐ Poor  
 (2) ☐ Fair  
 (3) ☐ Average  
 (4) ☐ Good  
 (5) ☐ Excellent

23. How would you rate the quality of career guidance and advisement you received in your department at OSU? (23)

(1) ☐ Very inadequate  
 (2) ☐ Inadequate  
 (3) ☐ Adequate  
 (4) ☐ More than adequate  
 (5) ☐ Very adequate  
 (6) ☐ Did not seek help

If not adequate, how could it be improved?  
 \_\_\_\_\_

24. What degree of benefit would a summer intern program (work experience) have been to you in making a career choice? (24)

(1) ☐ No benefit  
 (2) ☐ Little benefit  
 (3) ☐ Moderate benefit  
 (4) ☐ Much benefit  
 (5) ☐ Great benefit

For question #25 and #26 please rate the degree of influence of the following items by circling your choice using the following scale: NONE=0, LITTLE=1, MODERATE=2, STRONG=3, VERY STRONG=4.

25. Rate the degree of influence each of the following factors had on your decision to earn a degree in agriculture at OSU.

(25) Overall prestige of OSU	0 1 2 3 4
(26) Reputation of OSU faculty in your field	0 1 2 3 4
(27) OSU's agricultural facilities	0 1 2 3 4
(28) Nearness to home	0 1 2 3 4
(29) Financial assistance, scholarships	0 1 2 3 4
(30) Uncertainty about vocational goals	0 1 2 3 4
(31) Inability to find a job	0 1 2 3 4
(32) Other (specify) _____	0 1 2 3 4

26. Rate the degree of influence each of the following persons had on your decision to earn a degree in agriculture at OSU.

(33) Spouse	0 1 2 3 4
(34) Parent(s)	0 1 2 3 4
(35) High school counselor	0 1 2 3 4
(36) High school Vo. Ag. teacher	0 1 2 3 4
(37) 4H or county extension agent	0 1 2 3 4
(38) Employer	0 1 2 3 4
(39) Friend	0 1 2 3 4
(40) Other (specify) _____	0 1 2 3 4

27. If you could reconsider your decision regarding study in the College of Agriculture at OSU, what would you do? (41)

(1) ☐ Seek more specialization in major field of study  
 (2) ☐ Seek a more general degree with more courses from other areas of agriculture  
 (3) ☐ Seek a degree with basically the same amount of specialization

28. List all courses that your B.S. Degree program did not include that you feel should have been included.  
 \_\_\_\_\_  
 \_\_\_\_\_

29. List all courses from your B.S. Degree program you feel should be dropped from the degree program (courses that were not particularly useful).  
 \_\_\_\_\_  
 \_\_\_\_\_

30. New students often want to know what salary range they can hope to be in after completion of a degree in Agriculture at OSU. Please help by checking the annual gross salary range (income before taxes, and including commission and profit sharing) for your first and present position after receiving your B.S. Degree.

First Position (42-43)	Present Position (44-45)	
(01) _____	(01) _____	Below \$5,000
(02) _____	(02) _____	\$5,000 - \$9,999
(03) _____	(03) _____	\$10,000 - \$14,999
(04) _____	(04) _____	\$15,000 - \$19,999
(05) _____	(05) _____	\$20,000 - \$24,999
(06) _____	(06) _____	\$25,000 - \$29,999
(07) _____	(07) _____	\$30,000 - \$34,999
(08) _____	(08) _____	\$35,000 - \$39,999
(09) _____	(09) _____	\$40,000 - \$44,999
(10) _____	(10) _____	\$45,000 - \$49,999
(11) _____	(11) _____	\$50,000 - or more

APPENDIX B  
RESPONSES TO QUESTION 28

<u>Course</u>	<u>Number of Responses</u>
Agricultural Communications	
Computer Science	3
Agricultural Economics	
Computer Science	65
Finance	20
Accounting	15
Agronomy	13
Animal Science	12
General Business	11
Business Law	10
Calculus	8
Commodities (Futures)	7
Management	6
Money and Banking	5
Marketing	5
Report Writing	5
Human Relations	4
English	4
Speech	4
Record Keeping	3
Foreign Language	3
Agricultural Education	
Hands on Livestock Work	13
Computer Science	11
Accounting	6



<u>Course</u>	<u>Number of Responses</u>
Agricultural Education (cont.)	
More Agricultural Economics	6
Judging Contest	4
More Animal Science	4
More Mecanized Agriculture	3
Horticulrure	3
Agricultural Engineering	
Machinery Design	3
More Economics	3
Agriculture (General)	
Computer Science	3
Agricultural Business Management	3
Agronomy	
Computer Science Science	15
Small Business Management	6
Finance	5
Statistics	5
Farm and Ranch Management	5
Business	5
Marketing	4
Irrigation	3
Communications	3
Basic Horticulture	3

<u>Course</u>	<u>Number of Responses</u>
Animal Science	
Computer Science	31
Business	24
Marketing	16
Finance	11
Artificial Insemination	11
Accounting	10
Animal Health	10
Range Management	8
Money Management	7
Law	7
Bookkeeping	6
Agronomy	6
Prenancy Determination	5
Forage Management	5
Farm and Ranch Management	5
Futures Market	4
Nutrition	4
Hands on Livestock	4
Statistics	3
Meat Science	3
Microbiology	3
Tax Preparation	3
Employee Management	3
Business Management	3

<u>Course</u>	<u>Number of Responses</u>
Biochemistry	
Immunology	3
Entomology	
Computer Science	3
Forestry	
Business	10
Accounting	9
Computer Science	7
Public Speaking	6
Horticulture	
Business Management	14
Merchandising	5
Accounting	4
Plant Pathology	4
Computer Science	4
Field Botany	3
Use of Chemicals	3
Turf Management	3
Landscape Architecture	
Business	7
Architectural Design	3
Construction	3
Computer Science	3

<u>Course</u>	<u>Number of Responses</u>
Mechanized Agriculture	
Management	4
Basic Hydrolics	3
Plant Pathology	
None	
Pre-veterinary Medicine	
None	

APPENDIX C  
RESPONSES TO QUESTION 29

<u>Course</u>	<u>Number of Responses</u>
Agricultural Communications	
Chemistry	4
Agricultural Economics	
Chemistry	21
Statistics	12
Agronomy	12
Animal Science	7
English	6
Environmental Economics	6
Accounting	6
History	5
Psychology	5
Humanities	5
Farm and Ranch Management II	5
Senior Seminar	5
Agricultural Policy	5
Computer Science (Fortran)	4
Mechanized Agriculture	4
Price Analysis	4
Biological Science	4
Micro Economics	3
Macro Economics	3
Marketing I	3
Land Economics	3

<u>Course</u>	<u>Number of Responses</u>
Agricultural Education	
Humanities	12
Applied Behavioral Sciences in Education	11
Psychology	6
Agricultural Economics	5
Physics	4
Agricultural Orientation	4
Chemistry II	3
Advertising and Public Relations	3
Biological Sciences	3
Physical Education	3
Agricultural Engineering	
Humanities	4
Social Science	4
Agriculture (General)	
Chemistry	3
Agronomy	
Plant Physiology	5
Soil Chemistry	5
Chemistry	5
Humanities	5
Introduction to Agriculture	5
Trigonometry	4
Senior Seminar	4

<u>Course</u>	<u>Number of Responses</u>
Animal Science	
Chemistry	10
History	9
General Biology	9
Agricultural Orientation	7
Psychology	7
Physics	6
English	6
Agronomy 2124	5
Speech	4
Organic Chemistry	4
Genetics	4
Interpretation of Research	4
Accounting	3
Farm and Ranch Management	3
Political Science	3
Nutrition (first course)	3
Algebra	3
Biochemistry	
Animal Nutrition	3
Chemical Literature 4482	3
Entomology	
None	



<u>Course</u>	<u>Number of Responses</u>
Forestry	
Physics	4
Timber Harvesting	4
Computer Science (Fortran)	3
Silviculture	3
Horticulture	
Organic Chemistry	4
Agricultural Economics	3
Cell Physiology	3
Business Marketing	3
Landscape Architecture	
Trigonometry	3
Mechanized Agriculture	
Chemistry	3
Plant Pathology	
None	
Pre-veterinary Medicine	
None	

APPENDIX D  
QUESTIONNAIRE LETTERS



*Oklahoma State University*

College of Agriculture / Resident Instruction

STILLWATER, OKLAHOMA 74078  
(405) 624-5395

July 19, 1984

Dear Alumnus(a):

In order to help improve the quality of degree programs in the College of Agriculture at Oklahoma State University, a special research effort is being conducted concerning the effectiveness of the College's programs in preparing young men and women for a career. Please help the College of Agriculture by responding to the enclosed questionnaire and returning it in the stamped self-addressed envelope. Your viewpoints and experience are extremely important to this research effort.

Thank you for your general support of the College of Agriculture, its present and future students, and the employers of graduates from the College of Agriculture at Oklahoma State University.

Sincerely,

Paul D. Hummer  
Associate Dean

PDH:dgl

Enclosure



*Oklahoma State University*

ANIMAL SCIENCE DEPARTMENT

STILLWATER, OKLAHOMA 74078  
ANIMAL SCIENCE BUILDING  
(405) 624-6062

September 18, 1984

Dear Alumnus(a):

It has been brought to my attention that some of our Animal Science graduates have not responded to the previous mailing of a questionnaire from Dr. Paul D. Hummer, Dean of Resident Instruction for the College of Agriculture. If you received the previous mailing you will recall the purpose for the questionnaire is for collection of data to determine the effectiveness of the College's programs in preparing young men and women for careers in agriculture. The information will be used to help make decisions about possible instructional program changes.

If you have not responded to the questionnaire, please help the College of Agriculture and the Animal Science Department by responding to the enclosed questionnaire and returning it in the envelope provided. Please note that no postage stamp is necessary. Your viewpoints and experience are extremely important to this research effort.

Thank you for your time and you can be assured that your assistance will be of great benefit to present and future students in the Animal Science Department.

Yours truly,

Robert Totusek, Head  
Animal Science Department

RT/csw

Enclosure

VITA 2

David C. Drueckhammer

Candidate for the Degree of

Doctor of Education

Thesis: FOLLOW-UP OF COLLEGE OF AGRICULTURE GRADUATES AT OKLAHOMA  
STATE UNIVERSITY: 1979-1983

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Comanche, Texas, October 24, 1952, the son of Alton and Cherline Drueckhammer. Married to Rebecca K. Howle on July 31, 1982.

Education: Graduated from Priddy High School, Priddy, Texas, in May, 1971; received Bachelor of Science degree in Agricultural Education from Texas A & M University in May, 1975; received Master of Education degree from Southwest Texas State University in December, 1981, with a major in Secondary Education; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1985.

Professional Experience: Vocational Agriculture Instructor, Kayenta, Arizona, September, 1975, to June, 1977; Vocational Agriculture Instructor, Pflugerville, Texas, July, 1977, to June, 1980; Vocational Agriculture Instructor, Manor, Texas, July, 1980, to June, 1983; Graduate Teaching Assistant, Department of Agricultural Education, Oklahoma State University, September, 1983, to present.

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