PERCEPTIONS OF OKLAHOMA RESIDENTS TOWARD THE INSTRUCTIONAL FUNCTION OF THE OKLAHOMA STATE UNIVERSITY DIVISION OF AGRICULTURE

By

THOMAS EARL RANDLE II

Bachelor of Science
Texas A&M University
College Station, Texas
1975

Master of Education
Texas A&M University
College Station, Texas
1979

Submitted to the Faculty of the Graduate College
of the Oklahoma State University
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Thesis Approved:

James P. Key
Thesis Adviser

Joan Pritchard

Robert Terry

Kenneth St. Clair

Norman N. Durham
Dean of the Graduate College

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CHAPTER I

INTRODUCTION

Any public organization striving to be of service is vitally concerned with the image various clientele groups hold regarding it. The Instructional function of the Oklahoma State University Division of Agriculture (OSU Ag Instruction) is no exception. As a public agency, "OSU Ag Instruction" has made certain impressions on the people who have come in contact with Oklahoma State University. These contacts with "OSU Ag Instruction" had different effects on the people due to differences in their backgrounds, experience, and involvement with the division, as well as the perceived effectiveness or ineffectiveness of the organization.

"OSU Ag Instruction" has many audiences or publics which it attempts to serve. No university division can be "all things to all people"; nevertheless "OSU Ag Instruction" is concerned about the public's understanding and appraisal of the organization in an ever changing society that calls for dramatic adjustments on the part of the server and served.

The Land Grant Act of 1862 established the Land Grant Colleges of the United States which 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 mechanic 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 (26, p. 5).

This act provided the basis for the establishment of instruction at Land Grant Universities. The Morrill Act of 1890 supplemented the original act and specifically stated that

> . . . funds would be provided for instruction in agriculture, the mechanic 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 (26, p. 8).

Since the passage of these acts, the instruction at the land grant colleges has worked toward meeting the needs of the people it serves.

In the years since its beginning, a multitude of changes have made the job of defining "OSU Ag Instruction's" proper role in today's world a far more complex and trying one. It is believed that "OSU Ag Instruction" should be left to professionals; but with the age of accountability, educators are looking to the public for their input in developing the curriculum to meet the needs of the people the university serves.

It is difficult to determine the level of awareness of Oklahoma clientele toward the role of "OSU Ag Instruction." It is felt that many of the university's clientele do not make a distinction between the role of instruction, research, and extension. Perhaps little distinction should be made. According to McInnis

> . . . the practical relationship between the agricultural experiment station and the colleges is that the stations are to occupy a coordinate position with the college departments having instruction for their purpose. Their purpose is investigation, but the final use of investigation is instruction; not necessarily the instruction of youth, but the instruction of all studies and teachable minds (cited in 26, p. 64).

If the general public is not aware of "OSU Ag Instruction" as being separate with different functions and goals, perhaps efforts should be made to acquaint them with the differences.

Since the establishment of Oklahoma State University 89 years ago, many changes in the American scene have occurred. Oklahoma, along with the rest of the nation, has shared in many of these trends, shifts, and winds of change.

At the turn of the century, over 90 percent of Oklahoma's population was rural. From 1950 to 1960, Oklahoma registered the largest decrease of its rural population of any state in the United States, losing 21 percent (16). The 1960 census reported that approximately 40 percent of Oklahoma's population was classified as rural. The 1970 census reported that approximately 32 percent of Oklahoma's population was classified as rural, which indicated that the decrease was continuing. This loss of population from rural areas was largely due to advances in agricultural technology, mechanization, and the emergence of industrialism in urban areas where it was felt that economic opportunities were greater (12). Of those remaining on the farm, there has been a steady increase in the number of farm operators who have found it necessary to work off the farm 100 days or more each year to supplement farm income.

These shifts in population, social, and economic patterns have necessitated some adjustment by "OSU Ag Instruction" to meet the needs of this changing population. Due to these changes, it is felt that the communities OSU serves may have lost some personal contact with the University.

With this loss of personal contact and change, "OSU Ag Instruction's" role will have to change to meet the challenge. Regardless of the labels given to "Agricultural Instruction," it is the people served who are important. Much of the strength and effectiveness of "OSU Ag

Instruction" has been the work with students. It has been through these students that the general public has received the information they need and want.

Statement of the Problem

For "OSU Ag Instruction," three questions are important about change and potential clientele. First, what is the current situation regarding the awareness of the Instructional program at Oklahoma State University? Second, how is "OSU Ag Instruction" rated by the general public in Oklahoma? Third, what clientele should "OSU Ag Instruction" be working with if current trends in education continue? It is the need for information about the first question, "What is the awareness of the instructional program (OSU Ag Instruction) at Oklahoma State University?" that this study grew.

Purpose of the Study

The purpose of this study was to determine a baseline perceptional awareness of the Instructional phase of the Division of Agriculture at Oklahoma State University by a stratified random sample of the general public residing in Oklahoma.

More specifically, an attempt was made to determine whether Oklahoma residents from different economic levels, different racial/ethnic backgrounds, and different occupations are equally aware of OSU Ag Instruction. An attempt was made to determine if Oklahoma residents from various age groups, sexes, and educational levels were equally aware of "OSU Ag Instruction."

Objectives of the Study

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

1. To determine the awareness of "OSU Ag Instruction" by the general public in Oklahoma.

2. To determine whether residents from upper, middle, and lower socio-economic status were equally informed of the function of "OSU Ag Instruction."

3. To determine if residents of different occupations, racial/ethnic origin, education, sexes, and age groupings were informed of the function of "OSU Ag Instruction." In relation to this, it also seemed important to examine if these individuals were ever on the Oklahoma State University campus or were aware of the different areas of instruction in agriculture at the University.

4. To determine if Oklahoma residents' involvement in agriculture affected their awareness of "OSU Ag Instruction."

Rationale for the Study

The primary aim of the Morrill Act of 1862 was to provide each state with a land grant college. Congress provided these funds for instruction in agriculture, mechanic arts, and the liberal arts.

Changes have taken place since the beginning of the land grant college and "OSU Ag Instruction" must stay abreast of the changes. Thatcher stated:

> The future race will, perhaps, be one of the specialists. This will be necessary, on account of the vast amount of knowledge involved, but in all probability, the whole volume of human knowledge will be gradually rewritten and condensed.

> . . . The sciences themselves will be scientifically systematized, and by the aid of that process it will be possible for future specialists to be better versed in all departments than the specialist of today in his own (cited in 26, p. 208).

What is the role of "OSU Ag Instruction" towards meeting these needs? In order to answer this question, it was felt that the knowledge of how well the general public was informed about "OSU Ag Instruction" would aid administrators in setting goals that would keep abreast of our changing society.

This study was a base-line study that would determine the level of awareness of "OSU Ag Instruction" at Oklahoma State University. It was found that few studies have been done in determining levels of awareness.

Representative Fried (15), at a Phi Delta Kappa meeting, indicated that the general public sees instruction in the university as not providing enough services to the student. This lack of understanding can be attributed to their (general public) awareness of the program.

Ulry (29, p. 47) echoed these remarks when he said: "Today most certainly is not the time for collegiate institutions to be complacent about their programs in teacher education."

Fried and Ulry's remarks stimulated several questions that must be addressed to determine if their comments were true concerning "OSU Ag Instruction":

1. Is the general public aware of the subjects offered at OSU in the Division of Agriculture?

2. Is the public aware of the quality of "OSU Ag Instruction"?

3. Has most of their information come from someone other than their own personal experiences?

It was out of the need to answer these questions that this study was developed.

Definition of Terms

1. OSU Ag Instruction: Is the teaching or instructional component of the Division of Agriculture at Oklahoma State University.

2. Land-Grant College: Is defined as designating 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.

3. Instruction: Is defined as any teaching lesson, rule, or precept.

4. Awareness: According to Webster, awareness may be defined as having knowledge of something through alertness in observing or in interpreting what one sees, hears, and feels.

5. Perception: The act of percieving or the ability to perceive; mental grasp of objects, qualities, etc., by means of senses; awareness; comprehension, insight or intuition, or the faculty for these.

Assumptions and Limitations of the Study

Assumptions

For the purpose of this study the following assumptions were made:

1. Those individuals selected in the stratified random sample were representative of the general public of the state of Oklahoma.

2. That people from all socio-economic levels in Oklahoma have access to the telephone.

3. The individuals represented within occupations were representative of others in that given occupation.

4. That the telephone survey instrument adequately assessed the awareness of individuals toward "OSU Ag Instruction."

Limitations

The following limitation of the study was recognized by the investigator:

1. In order for individuals to be in the sample, they would have to have access to a telephone and be listed in a common directory of telephone numbers in their community. Also, telephone service had not been interrupted in their service area for any given length of time.

CHAPTER II

REVIEW OF LITERATURE

Land-grant institutions of higher education represent the realization of an American concept which was first expressed by the New England colonists in 1642 when they said: "One of the next things we longed for, and looked after, was to advance learning and perpetuate it to posterity" (14, p. 2). It was more than two centuries later before the concept became a reality with the passage of the Morrill Act granting public lands to the states and territories to create colleges.

The 1862 Morrill Act provided that the federal government would give each state a grant of 30,000 acres of land for each state senator and representative in Congress. The states were directed to invest proceeds from the sale of these lands and use the income to establish the land-grant institutions. The 1890 Morrill Act also authorized a permanent annual endowment of $25,000 for each land-grant college established under the 1862 act (14).

In line with the Morrill Act, the land-grant colleges emphasized agriculture as well as home economics, veterinary medicine, engineering for mechanic arts, and extension of educational services to the people. According to Fleming (14):

> Land-Grant Colleges have become true universities, developing the full complement of graduate and professional schools. In some States both State Universities and Land-Grant institutions were established; in others the State's University and the Land-Grant colleges were established as a single institution (p. 11).

The land-grant institutions have developed in the areas of teaching along with other institutions of higher education in the twentieth century. Teaching in this sense can be referred to as the preservation of eternal truths.

In concluding this review of the origin of the land-grant university, it may be appropriate to quote Moberly (23, p. 118) who said that: "The university is a place where there is agreement, even passionate agreement, on the conviction that intellectual pursuits are of utmost worth."

The History of Oklahoma State University

The Agricultural and Mechanical College of Oklahoma was founded amidst an unstable economic and political environment that existed on a recently opened midwestern frontier. After many years of struggle and controversy, the university was established in Stillwater, Oklahoma. Opening officially to students on December 14, 1891, the university's board of regents set out to accomplish the goals they had set.

In the early beginning of the university, the experiment station accomplished great things but it was not long before prominent members of the government, such as Edwin Willets, the Assistant Secretary of Agriculture, and land-grant academicians were urging scientists to step into the classroom and before the public to publicize the results of their research (25). It was at this point that the Oklahoma A&M officials were reminded of the importance of instruction at the land-grant institutions.

Goals of Instruction in the College of Agriculture

The College of Agriculture is a major unit of Oklahoma State University. Its broad goal is to discover, transmit, and apply knowledge in the several diverse areas that compose modern agriculture, and thereby to improve the environment and quality of life for the people of Oklahoma, the nation, and the world. This involves the effective use of natural and capital resources and the development of human resources in a manner that will benefit both rural and urban people. The function of the College of Agriculture is carried on through the three broad program areas of instruction, research, and extension. This study was concerned with the instruction phase of the programs and looked at the goals of the Division of Agriculture. The specific goals for instruction, as determined in 1971 by the College of Agriculture faculty at OSU, were:

> To foster the pursuit of knowledge through the interaction of rational inquiry, discourse, and research.
>
> To offer undergraduate programs which emphasize those areas unique to the mission of the university, which are common to representative universities and which give recognition to the proper balance between general and professional education.
>
> To order the priorities for commitment of resources and planning to programs which emphasize those specialized and professional programs that relate to the needs of society and are in keeping with the Land-Grant College philosophy.
>
> To provide educational opportunities, within the limits of available resources, to all qualified citizens of Oklahoma, on or off campus, but to recognize the need for admission of citizens from other states and countries who may benefit from such opportunities and who also enhance the quality of educational experiences of the university community.
>
> To develop and promote an environment for maximum learning through the use of adequate facilities, modern educational media, and advisement and counseling programs that will benefit students of varying interest and abilities.

To facilitate the acceleration of student progress toward meeting degree requirements through advanced standing examinations, self-paced study programs, directed off-campus study and other means.

To employ, develop and adequately finance a highly qualified faculty representing a variety of good universities and selected to facilitate the mission of the university, but dedicated to the profession of teaching so that the goal of excellence in instruction may be realized.

To provide organizational structures within the University which can recognize and implement interdisciplinary programs and facilitate the achievement of established goals.

To determine the efficiency of instruction for all programs and courses with regard to total and unit cost, relation to other programs, future demands, and the fulfillment of the mission of the university.

To develop and continuously review a system of evaluation of instruction to the end that what is taught may be relevant and the methods of teaching viable and effective.

To provide for procedures to effect desired program changes indicated from evaluation that will assure achievement of the mission and goals of the university (18, p. 2).

Perception Defined

Few studies have dealt with perception of instruction by the general population on the university level. Those that have been made dealt primarily with alumni perceptions of instruction at the university level.

The purpose of this study was to determine the perceptions of selected indivduals in Oklahoma towards the Instructional Function of the Oklahoma State University Division of Agriculture. Several studies have been made concerning the perception of clientele toward other divisions of agriculture. To the writer's knowledge, none have dealt directly with the "OSU Ag Instruction" phase of the Division of Agriculture.

Perception has been defined in many ways by many people but the basic concept of all definitions is similar. Allport (1) discusses

perception in terms of becoming more aware of objects or conditions around us. It is the way things look, sound, feel, taste, or smell, and also involves some degree of understanding and recognition.

Dember (11) took the position that perception is hard to define because it depends on the role that perception plays in one's general system of psychology. He stated: "Perception is not a simple scientific concept but a more complicated construct whose main function is to organize knowledge and there-by facilitate communication" (p. 3).

In discussing individual perception, Stogdill (28) supported the idea that an individual's attitudes and decisions are influenced by that individual's experience, environment, and his conscious or unconscious values and goals. The individual's perception of a situation is determined by the information that he derives from the situation.

Kelly (19, p. 248) defined perception as: "That which comes into consciousness when stimuli, principally light or sound, impinge on the organism from the outside."

Hilgard (17) indicated that perception is:

> The process of becoming aware of objects, qualities, or relations by way of the sense organs. While sensory content is always present in perception, what is perceived is influenced by set and prior experience so that perception is more than passive registration of stimuli impinging on sense organs (p. 587).

Hilgard's concept of perception will be used as the basis for this study.

Factors Influencing Perception

According to Bonner (7), factors influencing perception are grouped under three major categories. These are: (1) functional, (2) structural, and (3) cultural determinants. The functional aspects of perception are those properties affecting one's memory, needs, habits, and

past experience. Structural determinants of perception are physiological in character. We see the world around us by virtue of physiological character of the organs of perception and learning.

Cultural determinants are another set of determinants of learning. These are factors which cause us to see the world in terms of customs, traditions, and ideas.

According to Sherif and Sherif (27), perception is influenced by psychological structuring involving external and internal factors. External factors are those stimulating situations outside the individual--objects, events, other persons, groups, etc. Internal factors are motives, emotions, attitudes, and effects of past experiences, to mention a few.

Experience is an important factor influencing the establishment of attitudes and perceptions. An individual's perceptual activity must come from his current organization of personally meaningful and significant experience.

Having knowledge of perception aided this study in determining the level of awareness of the Instructional programs at Oklahoma State University.

Related Studies

A number of studies (related to this study) exploring the perceptions of various clientele groups have been conducted. A review of these studies indicates that there are many different groups that can be studied, all with different levels of awareness of a specific organization. A close relationship exists between the areas of interest of clientele groups and what they feel the organization should represent.

Most of these studies have focused on the concept "perception." However, there is little unanimity to be noticed in definitions of the term. The aforementioned studies have investigated various sub-facets of perception as they dealt with the different groups. For example, Dowell (12) chose to focus on the concepts "cognition" and "appraisal." The present investigation chooses to focus on "perception" and the level of "awareness" of "OSU Ag Instruction."

Dowell (12, p. 16), in a review of perception studies, made this summary statement: "Evidence indicates we have assumed people know far more about Cooperative Extension than they actually do." It is felt that the findings of this study will provide the level at which the general population perceives "OSU Ag Instruction." Instruction is generally looked at as not having direct contact with the general public.

Arthur (4), in a study to investigate student attitudes toward selected aspects of Murray State College, indicated the Instruction in the Agriculture Department was well thought of by high school students. This indicated that those individuals that were aware of the program usually rated it high.

Angkasith (2), in an evaluation of the Agricultural Education program at OSU by international students between 1960 and 1976, indicated that methods of teaching techniques in teaching were adequate and up-to-date. The results of his study indicated that instructors and instruction had a good rating. This prompted the concern of how others in the state of Oklahoma rated "OSU Ag Instruction."

Brooks (8), in a study of the improvement of instruction through an in-service education program in land-grant colleges of agriculture, said that teachers in the college of agriculture have lacked systematic

preparation in the teaching process because teaching on college campuses has lacked the recognition and financial rewards. It is a concern as to how much of "OSU Ag Instruction" is recognized by the general public of Oklahoma.

In 1972, Fleming (14) reported a study which he conducted among University of Nebraska's alumni. His was an investigation to determine the perceptions of alumni regarding the responsibilities of the University of Nebraska and to find out how alumni perceived various ways of achieving and maintaining mutual understanding of the university's responsibilities between themselves and the institution. His study indicated that alumni who resided in Nebraska thought that instruction was the institution's foremost responsibility. It was felt that a greater knowledge of "OSU Ag Instruction" would come from alumni members, but it is also important to know how other clientele perceive the instructional program.

Dowell (12) indicated in his recommendations that a study similar to his ("A Study of County Commissioners' Cognition and Appraisal of Cooperative Extension Service") be conducted with other clientele groups to assess their knowledge and appraisal of the Cooperative Extension Service. Dowell also recommended that the organization be continually alert to opportunities to evaluate its work and to assess its image in order to enhance its responsibility, its effectiveness, and its thrust as an agent of change in today's complex world.

It was felt that a study similar to these should be conducted with "OSU Ag Instruction." Because few studies have been conducted looking at the perceptions of "OSU Ag Instruction," similar studies were used for the review of literature.

Summary

A review of literature has shown that the development of the land-grant universities through the passage of the Morrill Act of 1862 and assisted by the 1890 Morrill Act emphasized instruction as a major function of the university.

Since its beginning in 1891, Oklahoma State University has worked toward the development of the primary goals of the land-grant university as well as those specifically stated by the University itself. The goal of discovering, transmitting, and applying knowledge in several diverse areas has improved year after year.

Because of the University's status, it is important to determine the level of awareness of the people it serves. The instructional program has proven to be very much alive in the past and in order for the image to prevail, changes must occur to keep up with the everchanging society.

CHAPTER III

METHODOLOGY AND PROCEDURE

The purpose of this chapter is to describe the methods used and the procedures followed in conducting this study. In order to collect data which would provide information relating to the objectives and purposes of this study, the population was determined and the instrument was developed for data collection. The data collection procedure was established and methods of data analyses were selected.

Considering the objectives of this study, the following hypotheses were tested:

1. There is no relationship between levels of awareness of OSU Ag Instruction and levels of income of Oklahoma residents.

2. There is no relationship between levels of awareness of OSU Ag Instruction and age of Oklahoma residents.

3. There is no relationship between occupations held by Oklahomans and their level of awareness of OSU Ag Instruction.

4. There is no relationship between level of awareness of OSU Ag Instruction and Oklahoma residents' involvement with agriculture.

5. There is no relationship between level of awareness of OSU Ag Instruction and the educational level of Oklahoma residents.

6. There is no relationship between the race of Oklahoma residents and their level of awareness of OSU Ag Instruction.

7. There is no relationship between male or female residents and their level of awareness of OSU Ag Instruction.

Design

The design of this study might best be classified as "survey research" (20). Although survey research is criticized by some writers as not being scientific, it is nevertheless a method often used in educational research. Kerlinger (20) stated:

> Survey research is that branch of social and scientific investigation that studies large and small populations by selecting and studying samples chosen from the populations to discover the relative incidence, distribution and interrelations of sociological and psychological variables (p. 410).

He further stated:

> Although the approach and techniques of survey research can be used on any set of objects and can be well-defined, survey research focuses on people, the vital facts of people, their beliefs, opinions, attitudes, motivations, and behavior (p. 411).

Describing the various types of surveys, Kerlinger (20, p. 412) stated: "Surveys can be conveniently classified by the following methods of obtaining information: personal interview, mail questionnaire, panel, telephone, and controlled observation." Of these, the telephone survey overshadows the others in speed and low cost. According to Morton (22), the telephone survey yields a higher return when the questionnaire is structured properly.

In order to collect the data needed for this study, the telephone technique was used. A structured telephone questionnaire was constructed and administered by phone to each of the 2,401 individuals included in the study.

Sample and Population

The sample for this study was selected from the adult population of the State of Oklahoma. To accomplish this purpose of the study, it was considered unfeasible, from the standpoint of time and money, to attempt to survey the entire population. Therefore, a method for selecting a sample size for an infinitely large population (estimated 2.88 M) was obtained by using a formula for sampling proportions as defined by Cochran (10) and others. The formula is given as follows:

$$n = \frac{\frac{t^2PQ}{d^2}}{1 + \frac{1}{N}\left(\frac{t^2PQ}{d^2} - 1\right)}$$

where

$t = 2.326$

$P = .5$

$Q = 1 - P = .5$

$d = .02$

n = sample size needed.

Due to the need for an accurate representation of the population, a confidence interval of .98 was chosen. This confidence interval would allow generalization to the adult population in Oklahoma. Cochran's formula showed a representative sample of 2,401 would provide the required sample size to insure the .98 confidence interval.

The sampling procedure selected was a stratified random sampling technique. The sample was stratified by county population, geographical location in Oklahoma, and county government funding support as determined by the Cooperative Extension Service (13).

The stratified random sampling used to establish the sample of this study was a systematic stratification. Step one was to divide the state into levels based on county government funding support of Oklahoma Extension. According to Fairchild (13), the counties were listed in rank order according to the funding support provided.

Level I included those counties which were recognized as providing lower amounts of county government funding for the support of county extension programs. Level II included those counties providing funds from county government which were higher than Level I but lower than the funds provided by counties in Level III. Level IV, which was composed of Oklahoma and Tulsa Counties, provided the highest amount of county government funding support. Each level contained a total of 25 counties, except Level IV which contained two counties.

The second step was to divide the state, using counties as units, into geographical quadrants. Interstate 35, which approximately transects the geographical center of the state from north to south, and Interstate 40, which approximately transects the geographical center of the state from east to west, were used to establish the quadrants. To insure that entire populations were within specific quadrants, the quadrants' lines were modified according to county boundary lines (see Appendix B). The quadrants were identified as the northwest (NW) quadrant, southwest (SW) quadrant, northeast (NE) quadrant, and the southeast (SE) quadrant. These quadrants included all of the counties within the State of Oklahoma with the exception of Oklahoma and Tulsa Counties.

The two largest urban areas in the State of Oklahoma are Tulsa, in Tulsa County, and Oklahoma City, in Oklahoma County. These counties together represent 35 percent of the total population of Oklahoma. Taking into consideration the highest percentage of the urban population in

the state is contributed by these two counties and that both counties are Level IV for the funding support, both counties were selected to be included in the sample regardless of geographical location.

In the final step, counties were identified in each quadrant by descending order according to county population. The figures used for county populations were based on July 1, 1978, estimates for 1980 established by the Oklahoma Employment Commission's Research and Planning Division (24). This was done for each of the first three levels (Levels I, II, and III) in each of the quadrants. For example, the northwest (NW) quadrant was arranged in the following way:

Level I	Level II	Level III
1. Dewey 6,500	1. Custer 23,200	1. Garfield 63,200
2. Ellis 5,400	2. Logan 23,000	2. Canadian 51,000
3. Harper 5,000	3. Woodward 19,100	3. Texas 18,700
4. Roger Mills 4,600	4. Blaine 13,000	4. Kingfisher 14,700
5. Cimarron 3,700	5. Woods 10,100	
	6. Major 8,300	
	7. Alfalfa 8,000	
	8. Grant 7,700	
	9. Beaver 7,000	

Each of the counties in each level within the quadrant was assigned a number starting with number one for the largest county and ending with the largest number assigned to the county with the smallest population. The table of random numbers from Bartz (6) was used to select one county from each level which would represent the total level population in the sample.

Each quadrant contained one county representing each of the three levels of funding and Oklahoma and Tulsa Counties represented Level IV. This provided three counties from each quadrant including Oklahoma and Tulsa Counties, making a total of 14 counties to be included in the sample for this study.

To determine the individuals to be used from each county, the total state population and the total population of each level in the state were utilized. The county and state populations were based on estimates of the Oklahoma Security Commission's (24) July 1, 1978, population report. The total population (2.88 M) was used as the divisor and the total population of all Level I counties was used as the dividend. The resulting percentage was the percentage of the population of Oklahoma represented by all Level I counties:

$$\frac{\text{233,700 State Population All Level I Counties}}{\text{2.88 Million State Population}} = \text{\% Level I Counties}$$

That percentage of all Level I counties was multiplied by the total sample size (2,401) to arrive at the 192.07 individuals which represented the total number of individuals selected for all Level I counties in the state. A Level I county was randomly chosen to represent each of the four quadrants in the state. The total population of these four Level I counties would represent the total sample of all Level I counties in the state. The total population of the four randomly chosen Level I counties would be used in the following formula, as a divisor, to determine the proportional number of individuals to be selected from each Level I county within quadrants. For example (Atoka County):

$$\frac{\text{11,600 Total Population Atoka County}}{\text{30,800 Total Population of Four Level I Randomly Chosen Counties}} = .3766\% \text{ of Sample}$$

The percentage computed for each of the randomly selected Level I counties was multiplied by the total Level I sample size (192.07) to determine the number of individuals selected in each Level I county. For example:

$$\underset{\text{Atoka County}}{\text{37.66\% of Sample}} \times \underset{\text{Sample Size}}{\text{192.07 Level I}} = \underset{\text{from Atoka County}}{\text{72.33 Individuals Selected}}$$

The 72.33 determined the individuals from that county to represent a proportional population by quadrant and by level.

This procedure was used to determine the random sample of individuals in each of the counties selected for the study. The resulting sample can be seen in Table I by counties and levels for the sample population (2,401).

Selection of Individuals

With the use of telephone exchanges in each of the counties, a random selection of the individuals from each quadrant and county was used in the research. A complete, up-to-date library of all telephone books in the State of Oklahoma, including several independent companies and Southwestern Bell, were used in the selection of the individuals who comprised the sample.

In a study by the National Research Association, Inc., Perl (25, p. 5) indicated that "in 1960 and 1965, and to a lesser extent in 1958, the characteristics of those with and without telephones have been extensively examined." The data indicated that 80.6 percent of households had telephones in 1965, as compared with 78.8 percent in 1960. It was found that telephone availability appears most pronounced in the lower income range but diminishes steadily as income increases. Perl also indicated, "between 1960 and 1965, the number of households with telephones had increased in almost every category with the greatest increases occurring in the lowest income categories" (p. 6). In 1970, based on the U.S. Department of Commerce, Bureau of the Census, it was reported that 87.2 percent of the people in the United States had access to telephone service. The difference between 1960 and 1970 shows a

TABLE I

SAMPLE SIZE BY COUNTY BY LEVEL

County	Sample by County	Level	Sample by Level
Atoka	72	1	
Cimarron	23	1	192
Harmon	29	1	
Nowata	68	1	
Craig	93	2	
Major	49	2	408
Pontotoc	188	2	
Washita	78	2	
Garfield	299	3	
Grady	175	3	973
Muskogee	317	3	
Pittsburg	182	3	
Oklahoma	461	4	828
Tulsa	367	4	
Total	2,401		2,401

percentage point gain of 12.4 percent. The resulting change between the years of 1970 and the date of this study one can only postulate. It would appear an increase would be an appropriate assumption.

Each telephone book which was identified as part of a selected random sample county and of the proper telephone exchange was included in the random sampling of individuals. The books were individually logged as to beginning page number of each book and ending page number included in the white pages, columns per page, and lines per column. This information was delivered to the computer programmer who initiated a random number selection process which selected a sample according to the above mentioned criteria. The communities, towns, and cities identified in each randomly selected county were determined by the 1970 Census Report.

Preparation of the Instrument

It is important to note that the instrument developed for this study was one part of a three-part data gathering instrument. The overall instrument was designed to obtain data for the three major areas of the Division of Agriculture: Resident Instruction, Cooperative Extension Service, and Agricultural Experiment Stations. The instrument would obtain data for a baseline study of the awareness of the general public of Oklahoma towards the Division of Agriculture at Oklahoma State University. This study was one segment of the overall project for which the instrument was developed.

In developing an instrument to meet the objectives of this study, a review of related studies was done. It was determined that a combination of components from other instruments would be needed to meet the

objectives established. The instrument to be developed would need to contain general questions that would obtain the perceptions of individuals toward OSU Ag Instruction.

In analyzing various methods of data gathering instruments, the questionnaire and interview methods were considered the most appropriate to meet the study objectives. Wallace (31) indicated that:

> Although mail questionnaires are often the most practical and economical method of obtaining data, some investigators hesitate to employ them because they tend to yield a low percentage of returns and relatively incomplete responses (p. 40).

If the cover letters are well written and the questionnaires are well constructed, researchers have said that an adequate response rate should be expected. According to Levine and Gordon (21), the degree to which a questionnaire elicits the desired information depends considerably upon the manner in which it is constructed. Despite the most diligent effort in respondent preparation and questionnaire design, a considerable number of respondents will fail to respond to the initial mailing. Researchers have stated that the first mailing will usually produce a percentage of return up to 40 percent. Other researchers consider 40 percent an optimistic percentage, with 20 to 30 percent more realistic.

Interviews are conducted orally, in-person, by administering a structured set of questions to each member of the sample. The interview is most appropriate for asking questions which cannot effectively be structured into a multiple-choice format. The interview is generally expensive and time consuming, and usually involves smaller samples, yet the flexibility of the interview provides an advantage over the questionnaire. Research has shown that the interview provides a higher response

rate and more accurate and honest responses than do questionnaires. Therefore, the interview method was chosen.

Due to the time and expense required to conduct personal interviews, this method was not used in the study. The high response rate provided by the use of the interview prompted a look at using the telephone interview survey as a method of data gathering. In research studies conducted by the Oklahoma State Department of Vocational and Technical Education, the use of the telephone interview provided response rates of 93 and 95 percent.

Based on this information, it was determined that the telephone survey-interview would provide the most accurate and high response rate, even though the expense might be higher than other methods.

After deciding the telephone survey-interview would be most appropriate for gathering the data, several steps were taken to make the instrument applicable for use in assessing the perceptions of people in Oklahoma toward OSU Ag Instruction. The first step in the preparation of the interview schedule was to compile a list of general questions that were relevant to determining the awareness towards OSU Ag Instruction. These questions were derived from related studies and an interview with the Dean of Instruction at Oklahoma State University. Input regarding the questions to be used in the interview schedule was sought from several other faculty members and staff at OSU and revisions were made accordingly. The next step was to confer with individuals in the Departments of Statistics, Sociology, and Agricultural Economics for their input about the questions being used and their knowledge of utilizing the survey-interview method. Several additions and changes were suggested by these individuals. The third step was to make the necessary

revisions and then test the applicability and continuity of the questions to be used. The questions were used in a mock interview in a graduate research class. The class then provided their comments regarding the questions and the use of the interview schedule. Several valid comments and questions were raised by the class, which allowed the researcher to strengthen several areas within the interview schedule. The fourth step was to provide a copy of the interview schedule, with revisions made, to the Dean and Assistant Dean of Instruction for their reactions and comments. The interview schedule was then again used in a mock interview with an adult education class. Comments were provided by class members regarding the order in which the questions were placed. These comments were analyzed and revisions were made. The sixth step included having the interview schedule typed and copies given to the Dean of Agriculture, the Dean of Instruction, and to members of the researcher's graduate committee to gain their final approval. Upon receiving additional comments, the interview schedule was considered ready for use. The seventh step was to make appointments with several staff members of the Oklahoma State Department of Vocational-Technical Education. These individuals provided information on the utilization of the telephone survey-interview and how to incorporate the interview schedule designed for this study into the telephone survey. The successes and failures experienced by these individuals was invaluable in designing the final form of the interview schedule. The eighth step was to develop a system for coding each of the questions on the interview schedule. The coding was needed to provide ease and consistency in keypunching answer sheets for the interview schedule. To accomplish this, an interview schedule containing a built-in coding system was developed.

The length of the instrument was of concern throughout the process of developing the interview schedule. Several individuals felt that it would be extremely difficult to get people to provide needed information if the interview schedule was too long. The length of the interview survey was designed to require a minimum amount of the respondent's time and yet provide the needed information. It was felt that the final interview survey should be completed in less than 10 minutes.

The ninth and final step included conducting a telephone survey, using the interview schedule, on 20 randomly selected residents of Payne County. The method of random selection was the same as described in an earlier segment of this chapter.

In its final form, the instrument contained three parts consisting of 35 items or questions. Most of the questions utilized the forced-response format with a "Don't know/Not sure" option. This format allowed data of a quantitative nature to be obtained, thereby allowing an analysis of the data. There were also several open-ended questions on the interview schedule which were designed to obtain qualitative responses (Appendix A).

The portion of the instrument survey used for this study contained five questions relating to OSU Ag Instruction. The questions or items used may be classified under one of the following divisions:

1. Oklahoma residents visiting the campus of Oklahoma State University.

2. Oklahoma residents visiting the campus of Oklahoma State University for an agricultural event.

3. Oklahoma residents' knowledge of anyone having studied agriculture at Oklahoma State University.

4. Oklahoma residents' ability to recognize subjects offered at Oklahoma State University.

5. How the general public would rate OSU Ag Instruction.

6. Personal data.

A copy of the interview schedule may be found in Appendix A.

Analysis of Data

The purpose of this study was to determine Oklahoma residents' perceptions of OSU Ag Instruction. The telephone survey was used to gather information from the residents of Oklahoma. The survey provided the following information: (1) the level of awareness of respondents of OSU Ag Instruction, (2) would Oklahoma residents be able to identify subject matter offered in the College of Agriculture, (3) how is OSU Ag Instruction rated by Oklahoma residents, (4) demographic data of respondents.

The survey involved attitudes, opinions, and subjective judgments which resulted in qualitative data. The survey was also designed to be able to quantify the responses given, which allowed the use of statistical procedures to aid in the interpretation of data.

To determine the levels of awareness, it was necessary to assign weighted numerical scores to questions in the survey. These questions, each having a forced response of "yes" or "no," were weighted to measure the respondents' awareness of OSU Ag Instruction. Questions in which the respondents could identify subjects offered in agriculture at OSU were divided into three levels and each subject was weighted according to the familiarity of the subject. For example, Animal Science was considered a widely known subject and was placed in the lowest level and given a score of one. Biochemistry was considered one of the least

known and it was placed in the highest level and given a score of three. The total awareness score could range from a low score of one to a high score of 28. The questions, possible answers, and weighted values are provided in Table II.

For this study, awareness of OSU Ag Instruction was broken down into four levels. The levels of awareness and numerical scores ranges were as follows:

1. Level 1 equals no awareness--0 points.
2. Level 2 equals low awareness--1 to 2 points.
3. Level 3 equals medium awareness--3 to 7 points.
4. Level 4 equals high awareness--8 to 16 points.

Demographic data obtained from the respondents included gross income of the household, age, occupation, involvement in agriculture, how they were involved in agriculture, educational level completed, racial/ethnic group, and sex.

To determine if the respondent was or was not involved in agriculture, questions 30 through 32 were utilized. Each respondent was asked question 30 to determine their present occupation. The response was recorded in one of the following categories: (1) agriculture, (2) agriculture related, (3) business, or (4) laborer. The respondents were then asked question 31 to determine if the respondents perceived themselves as being involved with agriculture in any way. If a "yes" response was recorded for question 31, the respondent was then asked to respond to question 32. Question 32 was utilized to determine how the respondent was involved with agriculture by categorizing the responses into: (1) part-time farming, (2) gardening, (3) agri-business, and (4) other. The

TABLE II

SUMMARY OF VALUES ASSIGNED TO SELECTED QUESTIONS DESIGNED TO ASSESS LEVEL OF AWARENESS OF OSU AG INSTRUCTION

Question	Type of Response	Awareness Value
2. Have you ever been on the Oklahoma State University campus?	Yes	1
	No	0
3. Have you been on the OSU campus for an agricultural event?	Yes	1
	No	0
4. Do you know of anyone who has studied agriculture at OSU?	Yes	1
	No	0
5. Can you identify any of the subjects offered at OSU? Which subjects?	Ag Communications	3
	Ag Economics	2
	Ag Education	2
	Ag Engineering	2
	Agronomy	1
	Animal Science	1
	Biochemistry	3
	Entomology	3
	Forestry	2
	Horticulture	1
	Plant Pathology	2
	Mech Ag	3
	Pre-Vet	1
Total Possible		28

"other" category included any other agricultural activity as defined by the respondent.

All information collected was keypunched on International Business Machine (I.B.M.) cards and a Statistical Analysis System (S.A.S.) 76 program was utilized in initiating statistical computations by the I.B.M. System 370, Model 158 computer.

The statistical procedure used included the frequency procedure and Chi-square analysis. The guide for S.A.S. provided this analysis of the frequency procedure: "The FREQ procedure can produce one-way to n-way frequency and crosstabulation tables. Tables can be produced for either numeric or character variables. A weighting variable can be specified" (5, p. 120). Included in the frequency procedure were frequency counts and percentages. The frequency procedure was based on all data collected from the survey.

The analsis of the Chi-square option is provided by the S.A.S. guide:

> The CHISQ option can be specified for two-way to n-way tables. When it appears, the chi-square statistic, its degree of freedom, and its significance probability are printed below two-way tables (including two-way tables representing a level of one or more other variables (5, p. 120).

Bartz (6) defined Chi-square as:

> A technique that can be used to determine whether there is a significant difference between some theoretical or expected frequencies and the corresponding observed frequencies in two or more categories. . . . The formula for the calculation of chi-square is
>
> $$X^2 - \Sigma \frac{(O - E)^2}{E}$$
>
> where O is the observed frequency in a given category, E is the expected frequency in a given category (6, p. 294).

Each individual was given an awareness score and frequency counts were used. Scores were placed in levels of awareness, as discussed

earlier in this chapter. To determine if there were any relationships occurring in the data, the levels of awareness were then compared to each item of the demographic data through Chi-square analysis.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The primary purpose of this study was to determine the awareness of the general public in Oklahoma about OSU Ag Instruction. In addition, this study provided a baseline for future research efforts involving the awareness and impact of OSU Ag Instruction by the general public of Oklahoma.

Data presented in this chapter were obtained from 2,401 individuals in the State of Oklahoma. This information was obtained from these individuals through the use of a telephone survey.

The results of this study are presented in three sections. They are:

1. The general characteristics of the Oklahoma residents who were surveyed.

2. The response to specific awareness and/or involvement questions concerning OSU Ag Instruction.

3. The awareness levels and related awareness characteristics of the respondents.

Frequency distribution, consisting of numbers and percentages, are used to report the data. Data relating to awareness levels are reported in frequency distribution tables with Chi-square analysis. The demographic data and awareness scores were combined to form larger levels or categories to facilitate Chi-square analysis.

Population Background

There were 2,401 respondents to the telephone survey 18 years or older, having access to a telephone, and having their telephone number listed in one of the telephone directories in Oklahoma. Fourteen Oklahoma counties were used in the survey with a proportional number of individuals used in each county. These respondents were dispersed as follows: 23 in Cimarron County, 29 in Harmon County, 49 in Major County, 68 in Nowata County, 72 in Atoka County, 78 in Washita County, 93 in Craig County, 175 in Grady County, 182 in Pittsburg County, 188 in Pontotoc County, 299 in Garfield County, 317 in Muskogee County, 367 in Tulsa County, and 461 in Oklahoma County. The respondents were given the choice of participating in the survey through a forced response of "yes" or "no." Because they were given the option, 1,662 Oklahoma residents completed the 35-item telephone survey. The 1,662 respondents comprised 69.22 percent of the 2,401 individuals sampled.

General Characteristics of Oklahoma Residents

Anyone in Oklahoma having access to a telephone and listed in a telephone directory was eligible to participate in the study. After randomly selecting these individuals through a stratified random selection process, they were given a survey consisting of 35 questions, nine of which were personal data. The nine questions were designed to obtain information on their household income, age, number of people in the household, occupation, involvement in agriculture, how involved, educational level, race or ethnic group, and sex. One thousand six hundred and sixty-two individuals indicated they would complete the interview schedule, but not all of the questions were answered by all respondents.

Individual respondents chose not to answer some questions and some questions were asked only if a preceding answer was yes; therefore, total responses varied from question to question.

The number and percentage of the residents surveyed in the household income categories are presented in Table III. Four hundred and twenty-four (29.02 percent) of the respondents reported they had an annual income of less than $10,000. Seven hundred and twenty-four (49.55 percent) of the respondents had annual incomes of $10,000 to $25,000. Those having incomes over $25,000 included 313 (21.43 percent) of the respondents from the total population used in the study. The smallest single category represented was respondents with incomes greater than $50,000 and the largest percentage of individuals responding were in the $10,000 to $15,000 range, with 18.75 percent indicating this range.

The median income for a family in the state of Oklahoma, as reported by the Employment Commission (24), was $12,172 which compared favorably with this study. Table IV shows the number and percentage of respondents classified according to their age. The 18 to 24 age group represented 14.05 percent of the individuals responding to the survey. Twenty percent were between the ages of 25 and 34, with 24 percent representing the 35 to 49 age range. The 50 to 62 age group accounted for 19.60 percent and 63 and over contributed 22.16 percent to the state population by age groups.

Population estimates by the Oklahoma Employment Security Commission (24) indicated that ages that range from 20 to 44 represent 33.9 percent of the population; 45 to 64 years of age represented 20.4 percent, and 65 and older represented 12.3 percent of the population of Oklahoma, to which this study closely approximates.

TABLE III

DISTRIBUTION OF RESPONDENTS ACCORDING TO INCOME

Household Income	Frequency Distribution N	%
Less than $5,000	199	13.62
$5,000 to $10,000	225	15.40
$10,000 to $15,000	274	18.75
$15,000 to $20,000	267	18.28
$20,000 to $25,000	183	12.53
$25,000 to $50,000	237	16.22
Over $50,000	76	5.20
TOTAL	1,461	100.00

TABLE IV

NUMBER AND PERCENTAGE OF RESPONDENTS ACCORDING TO AGE LEVEL

Age Level	Frequency Distribution N	%
18 to 24	220	14.05
25 to 34	315	20.12
35 to 49	377	24.07
50 to 62	307	19.60
63 or Older	347	22.16
TOTAL	1,566	100.00

The data in Table V indicate that 51.0 percent of the respondents came from households having two or less people. Only 4.20 percent of the respondents were in households larger than six.

TABLE V

RESPONDENTS BY SIZE OF HOUSEHOLD

Size of Household	Frequency Distribution	
	N	%
1	251	15.76
2	561	35.22
3	315	19.77
4	282	17.70
5	117	7.35
6	48	3.01
7	8	0.50
8	5	0.31
9	6	0.38
TOTAL	1,593	100.00

Table VI contains data pertaining to the occupation of the respondents. The occupation category was broken down into four areas: agriculture, agriculture related, business, and laborer. The high percentage of laborers reported included those individuals who indicated they were

housewives. Approximately 57 percent were classified as laborers with agriculture occupations representing 7.2 percent of the sample population.

TABLE VI

RESPONDENTS ACCORDING TO OCCUPATION

Occupation	Frequency Distribution	
	N	%
Agriculture	100	7.21
Agriculture Related	27	1.95
Business	459	33.09
Laborer	801	57.75
TOTAL	1,387	100.00

Responses to the question concerning how the respondents were involved in agriculture are reported in Table VII. Approximately 46 percent indicated they were involved in agriculture, while 53.75 percent said they were not.

It was felt desirable to ascertain how the respondents were involved in agriculture. Table VIII contains information concerning how the respondents perceived their involvement in agriculture. Of those responding, 24.59 percent indicated they were involved in part-time

farming, 56.97 percent said they were gardeners, and 6.15 percent were involved in agri-business.

TABLE VII

NUMBER AND PERCENTAGE OF RESPONDENTS' PERCEIVED INVOLVEMENT IN AGRICULTURE

Involvement in Agriculture	Frequency Distribution	
	N	%
Yes	739	46.27
No	858	53.73
TOTAL	1,597	100.00

TABLE VIII

NUMBER AND PERCENTAGE OF RESPONDENTS CLASSIFIED BY HOW THEY ARE INVOLVED IN AGRICULTURE

Agricultural Involvement	Frequency Distribution	
	N	%
Part-Time Farming	180	24.59
Gardening	417	56.97
Agri-Business	45	6.15
Other	90	12.29
TOTAL	732	100.00

Another question, intended to determine the educational level of the respondents, indicated that 7.65 percent had over four years of college, with the highest percentage of respondents having three or four years of high school. Table IX presents this information. The survey also indicated that 11.69 percent of the respondents did not complete the eighth grade level.

TABLE IX

NUMBER AND PERCENTAGE OF RESPONDENTS CLASSIFIED BY LEVEL OF EDUCATION

Education	Frequency Distribution	
	N	%
0 to 8 Years	185	11.69
1 to 2 Years of High School	125	7.90
3 to 4 Years of High School	672	42.48
1 to 2 Years of College	258	16.31
3 to 4 Years of College	221	13.97
Over 4 Years of College	121	7.65
TOTAL	1,582	100.00

Table X contains data pertaining to the racial/ethnic background of the respondents. Of the respondents, 1,464 (91.27 percent) classified themselves as Caucasian or white, 75 (4.68 percent) of the respondents were black, 52 (3.24 percent) of the respondents were Indian, with Asian

Hispanic, and those placing themselves in the "other" category representing 13 (0.81 percent) of the population of the survey.

TABLE X

DISTRIBUTION OF RESPONDENTS AS CLASSIFIED BY RACIAL/ETHNIC GROUP

Racial/Ethnic Group	Frequency Distribution N	%
Caucasian/White	1,464	91.27
Black	75	4.68
Indian (American or Alaskan)	52	3.24
Asian or Pacific Islander	2	0.13
Hispanic (Spanish Origin)	9	0.56
Other	2	0.12
TOTAL	1,604	100.00

When compared to the Oklahoma Security Commission's (24) July, 1978, population estimates, it was apparent there was little difference between the survey and the Commission's population estimates. The Commission's estimates were: Whites represented 88.8 percent of the population; Black, 6.9 percent; American Indian, 4.0 percent, Spanish Origin, 2.1 percent, and "Other," 0.3 percent.

Table XI contains data pertaining to the sex of the respondents. Telephone surveys were made during the afternoon and early evening which

might account for the high percentage of females represented in the study. Females made up 62.86 percent of the respondents. The male population was represented by 37.14 percent. According to the Oklahoma Security Commission's (24) estimates, 51.5 percent of the population of Oklahoma is female and 48.5 percent represent the male population.

TABLE XI

NUMBER AND PERCENTAGE OF RESPONDENTS BY SEX

Sex	Frequency Distribution	
	N	%
Female	1,029	62.86
Male	608	37.14
TOTAL	1,637	100.00

Responses to Instruction Questions

The purpose of this study was to determine the awareness of the general public in Oklahoma towards OSU Ag Instruction. The respondents were asked five questions which dealt with OSU Ag Instruction. The respondents were asked these questions in an attempt to determine their level of awareness of OSU Ag Instruction.

Each respondent could indicate a "yes" or "no" response for questions 1 through 4. Question 5 was designed to determine if the general

public could recognize subjects studied in agriculture at Oklahoma State University. Question 6 was asked to determine how the respondents rated OSU Ag Instruction.

Table XII shows the number and percentage of the respondents indicating they would complete the questionnaire. Of the people contacted, 69.22 percent said they would answer the questions on the survey.

TABLE XII

NUMBER AND PERCENTAGE OF RESPONDENTS COMPLETING QUESTIONNAIRE

Respondents Completing Questionnaire	Frequency Distribution	
	N	%
Yes	1,662	69.22
No	739	30.78
TOTAL	2,401	100.00

Question 2 was asked to determine if the respondent had ever been on the Oklahoma State University campus. It was felt that those people having some contact with the university would have a higher level of awareness. Eight hundred and forty-one or 50.72 percent of the respondents had been on the Oklahoma State University campus. Eight hundred and seventeen or 49.28 percent indicated they had not been on the campus. Table XIII shows these percentages.

TABLE XIII

NUMBER AND PERCENTAGE OF RESPONDENTS INDICATING THEY HAD BEEN ON THE OKLAHOMA STATE UNIVERSITY CAMPUS

Have Been on Campus	Frequency Distribution	
	N	%
Yes	841	50.72
No	817	49.28
TOTAL	1,658	100.00

The respondents surveyed in this study were asked if they had been on the Oklahoma State University campus for an agricultural event. It was suspected that those residents visiting the campus for an agricultural event would have a higher level of awareness than respondents visiting the campus for events other than agriculturally related. Table XIV shows this information.

TABLE XIV

RESIDENTS VISITING THE CAMPUS FOR AN AGRICULTURAL EVENT

On Campus for an Agricultural Event	Frequency Distribution	
	N	%
Yes	130	14.79
No	749	85.21
TOTAL	879	100.00

Table XV shows data pertaining to Question 4. In an attempt to determine how much of the respondent's awareness came from personal contact with someone attending Oklahoma State University, each individual was asked to respond to Question 4 (see Appendix A). Of the respondents surveyed, 38.11 percent indicated they knew someone who had studied agriculture at OSU, while 61.89 percent indicated they did not.

TABLE XV

NUMBER AND PERCENTAGE OF RESPONDENTS KNOWING SOMEONE WHO HAD STUDIED AGRICULTURE

Knowledge of Someone Who had Studied Agriculture	Frequency Distribution	
	N	%
Yes	630	38.11
No	1,023	61.89
TOTAL	1,653	100.00

Question 5 asked if the respondent could name any of the subjects offered in agriculture at Oklahoma State University. Thirteen subjects were identified as offerings in the College of Agriculture. These subjects were ranked according to how easy it was to name them. The subjects were grouped into three groups, each expressing different levels of awareness. For the sake of simplicity, the results of the three groups are shown in Tables XVI, XVII, and XVIII. A combination of

all the groups are shown in Table XIX. The most recognized subject was Animal Science and the least was Agricultural Communications/Journalism.

TABLE XVI

FREQUENCY DISTRIBUTION AND RANK ORDER OF SUBJECTS NAMED

Subjects Difficult to Name with a Score of 3	Frequency Distribution	
	Number	Rank
Biochemistry	16	11
Entomology	17	10
Ag Communications/Journalism	9	13
Mech Ag	11	12

TABLE XVII

FREQUENCY DISTRIBUTION AND RANK ORDER OF SUBJECTS NAMED

Subjects Difficult to Name with a Score of 2	Frequency Distribution	
	Number	Rank
Plant Pathology	21	9
Ag Engineering	22	8
Ag Economics	54	6
Ag Education	62	5
Forestry	37	7

TABLE XVIII

FREQUENCY DISTRIBUTION AND RANK ORDER OF SUBJECTS NAMED

Subject Most Easy to Name with a Score of 1	Frequency Distribution	
	Number	Rank
Pre-Vet	134	2
Agronomy	111	3
Animal Science	186	1
Horticulture	105	4

TABLE XIX

FREQUENCY DISTRIBUTION AND RANK ORDER OF ALL SUBJECTS NAMED

Subjects Known	Frequency Distribution	
	Number	Rank
Ag Communications/Journalism	9	13
Ag Economics	54	6
Ag Education	62	5
Ag Engineering	22	8
Agronomy	111	3
Animal Science	186	1
Biochemistry	16	11
Entomology	17	10
Forestry	37	7
Horticulture	105	4
Plant Pathology	21	9
Mech Ag	11	12
Pre-Vet	134	2
TOTAL	785	

Each respondent who indicated they could name a subject offered at OSU was asked how they rated the instructional program at the university. The respondents were able to provide one response from the following categories: High, Low, Don't know/Not sure. Three hundred and fifty-three or 54.56 percent of the respondents rated OSU Ag Instruction "high." Only two respondents or 0.31 percent of the sample rated OSU Ag Instruction "low." Table XX shows the number and percentage of respondents to this question.

TABLE XX

HOW RESPONDENTS RATED OSU AG INSTRUCTION

Rating of OSU Ag Instruction	Frequency Distribution	
	N	%
High	353	54.56
Low	2	0.31
Don't know/Not sure	292	45.13
TOTAL	647	100.00

Awareness of Respondents

This section presents the awareness of OSU Ag Instructin by respondents of this study and presents the statistical analysis of the data.

Each of the null hypotheses presented in Chapter III was tested with the use of Chi-square statistics. In order to obtain the proper

expected cell sizes, the cells in the tables were combined as indicated.

The cells were combined in the following ways: awareness equal to zero was no awareness; awareness equal to one or two was low awareness; awareness equal to three, four, five, six, or seven was medium awareness; and awareness equal to 8, 9, 10, 11, 15, and 16 were combined to form high awareness. Variables combined within cells were income, age, and occupation, using this procedure. (For awareness weightings, see Table II.)

Awareness of OSU Ag Instruction by
Income Level of Respondents

The null hypothesis stated: There is no relationship between levels of awareness of OSU Ag Instruction and levels of income of Oklahoma residents.

The data contained in Table XXI indicate the level of awareness of the respondents according to income. Fourteen hundred and sixty-one individuals responded; 942 or 64.48 percent indicated an awareness of OSU Ag Instruction. Six hundred and twenty-seven or 66.56 percent scored less than three awareness points. Three hundred or 31.85 percent scored between three and seven awareness points and 15 or 1.59 percent of the respondents scored between 8 and 16 awareness points which was considered a high level of awareness. The Chi-square value was significant at the .0001 level and indicated a relationship between awareness and income.

Figure 1 indicates that 52.12 percent of the respondents with an income of $10,000 or less had no awareness of OSU Ag Instruction. Only 20.45 percent with an income of $25,000 or greater had no awareness. The low income group had the highest percentage of individuals with no awareness but also had the lowest percentage of high awareness. The high

TABLE XXI

AWARENESS OF OSU AG INSTRUCTION BY INCOME LEVELS

Level of Awareness	Level of Income														Total	
	<$5,000		$5,000 to $10,000		$10,000 to $15,000		$15,000 to $20,000		$20,000 to $25,000		$25,000 to $50,000		>$50,000			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0	121	8.28	100	6.84	108	7.39	75	5.13	51	3.49	49	3.35	15	1.03	519	35.52
1	54	3.70	67	4.59	78	5.34	90	6.16	46	3.15	60	4.11	14	0.96	409	27.99
2	11	0.75	29	1.98	34	2.33	51	3.49	32	2.19	50	3.42	11	0.75	218	14.92
3	9	0.62	16	1.10	25	1.71	21	1.44	20	1.37	29	1.98	14	0.96	134	9.17
4	3	0.21	6	0.41	11	0.75	14	0.96	18	1.23	27	1.85	6	0.41	85	5.82
5	0	0.00	3	0.21	7	0.48	5	0.34	7	0.48	10	0.68	10	0.68	42	2.87
6	0	0.00	2	0.14	7	0.48	6	0.41	6	0.41	6	0.41	3	0.21	30	2.05
7	0	0.00	1	0.07	1	0.07	1	0.07	1	0.07	3	0.21	2	0.14	9	0.62
8	1	0.07	0	0.00	1	0.07	2	0.14	2	0.14	1	0.07	0	0.00	7	0.48
9	0	0.00	0	0.00	1	0.07	0	0.00	0	0.00	1	0.07	1	0.07	3	0.21
10	0	0.00	0	0.00	1	0.07	0	0.00	0	0.00	0	0.00	0	0.00	1	0.07
11	0	0.00	1	0.07	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.07
15	0	0.00	0	0.00	0	0.00	1	0.07	0	0.00	0	0.00	0	0.00	1	0.07
16	0	0.00	0	0.00	0	0.00	1	0.07	0	0.00	1	0.07	0	0.00	2	0.14
TOTAL	199	13.62	225	15.40	274	18.75	267	18.28	183	12.53	237	16.22	76	5.20	1491	100.00

$X^2 = 118.53$, df = 6, p = .0001. The Chi-square value was calculated by combining cells within the variable income to make a 4 x 3 contingency table as reflected by Figure 1.

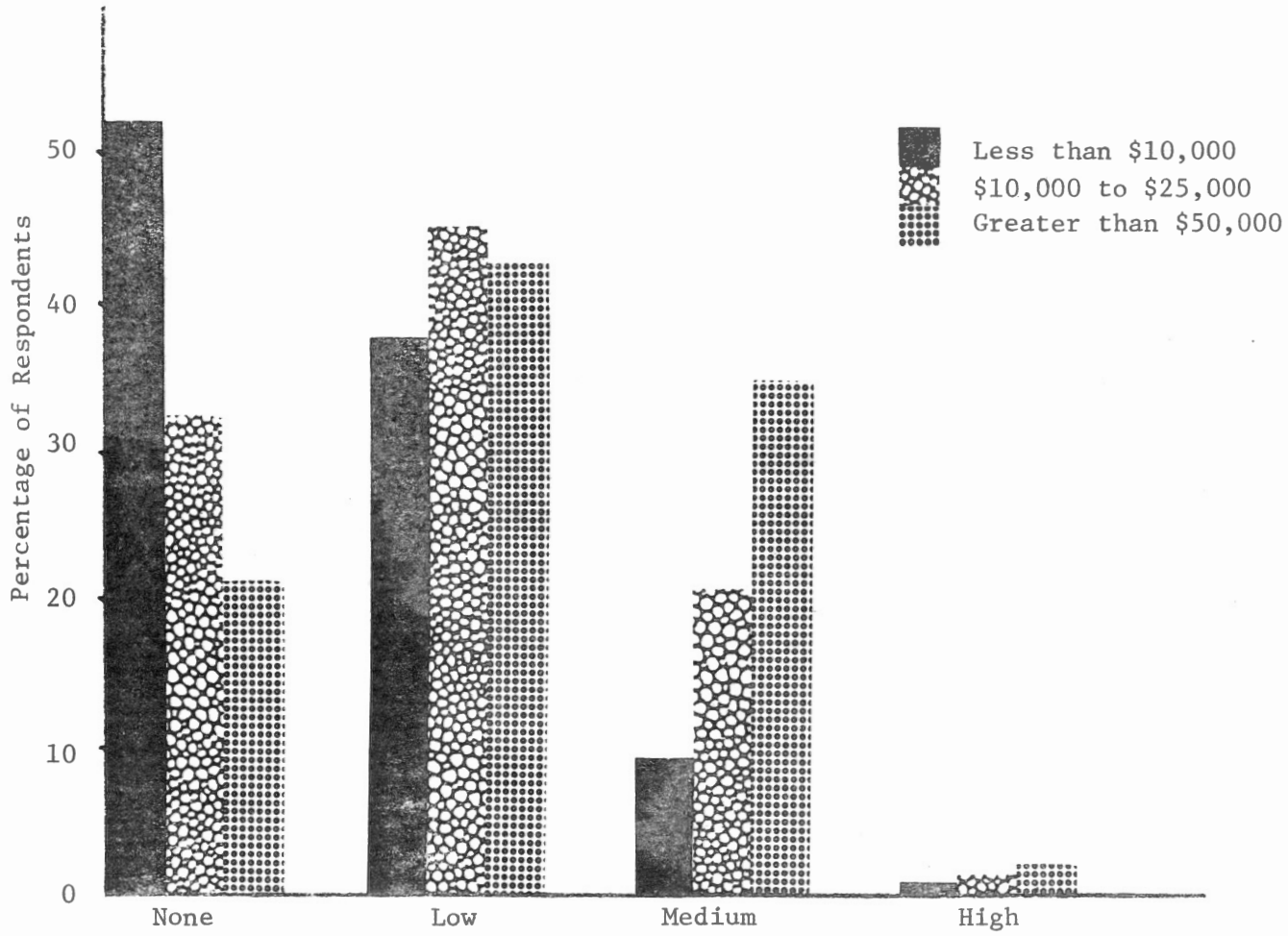

Figure 1. Level of Awareness by Income Level of Respondents

income group had the highest percentage of individuals with a high level of awareness.

The group that had the greatest impact on the calculated Chi-square value was found to be the respondents with incomes of less than $10,000 who had much less awareness of OSU Ag Instruction than could be expected by chance. Individuals in the high income bracket were in the medium level of awareness of OSU Ag Instruction which contributed to the total Chi-square value. The value contributed by the low income cell was 32.9 and the high income cell contributed 32.5 percent of the total Chi-square value of 118.53.

Awareness of OSU Ag Instruction by Age

The null hypothesis stated: There is no relationship between levels of awareness of OSU Ag Instruction and age of Oklahoma residents.

Table XXII contains the results of Oklahoma residents' distribution by age as compared to level of awareness of OSU Ag Instruction. Sixty-three percent of the respondents, regardless of age, were aware of OSU Ag Instruction. About 42.78 percent were considered to have low awareness, whereas 1.02 percent scored eight or more awareness points and were classified in the high level of awareness.

Approximately 34.00 percent of the respondents were between the ages of 18 and 24. About 24.00 percent were between 35 and 49, while 41.76 percent were 50 or older.

The Chi-square test indicated a relationship between levels of awareness of OSU Ag Instruction and ages of Oklahoma residents.

The difference in the awareness levels of OSU Ag Instruction among the ages of Oklahoma residents is shown in Figure 2. The percentage of

TABLE XXII

AGE DISTRIBUTION BY AWARENESS

Level of Awareness	Levels by Age 18-24 N	18-24 %	25-34 N	25-34 %	35-49 N	35-49 %	50-62 N	50-62 %	63 and Over N	63 and Over %	Total N	Total %
0	92	5.87	114	7.28	119	7.60	98	6.26	146	9.32	569	36.33
1	68	4.34	84	5.36	95	6.07	78	4.98	113	7.22	438	27.97
2	25	1.60	54	3.45	56	3.58	60	3.83	37	2.36	232	14.81
3	16	1.02	23	1.47	44	2.81	34	2.17	25	1.60	142	9.07
4	6	0.38	14	0.89	35	2.23	17	1.09	12	0.77	84	5.36
5	7	0.45	10	0.64	12	0.77	9	0.57	6	0.38	44	2.81
6	3	0.19	9	0.57	11	0.70	6	0.38	3	0.19	32	2.04
7	1	0.06	0	0.00	3	0.19	1	0.06	4	0.26	9	0.57
8	1	0.06	4	0.26	0	0.00	1	0.06	1	0.06	7	0.45
9	0	0.00	1	0.06	2	0.13	2	0.13	0	0.00	3	0.19
10	1	0.06	0	0.00	0	0.00	0	0.00	0	0.00	1	0.06
11	0	0.00	1	0.06	1	0.06	0	0.00	0	0.00	2	0.13
15	0	0.00	1	0.06	0	0.00	0	0.00	0	0.00	1	0.06
16	0	0.00	0	0.00	1	0.06	1	0.06	0	0.00	2	0.13
TOTAL	220	14.05	315	20.11	377	24.07	307	19.60	347	22.16	1566	100.00

$X^2 = 23.94$, df = 6, $p = .0005$. The Chi-square value was calculated by combining cells within variable age to make a 4 x 3 contingency table as reflected in Figure 2.

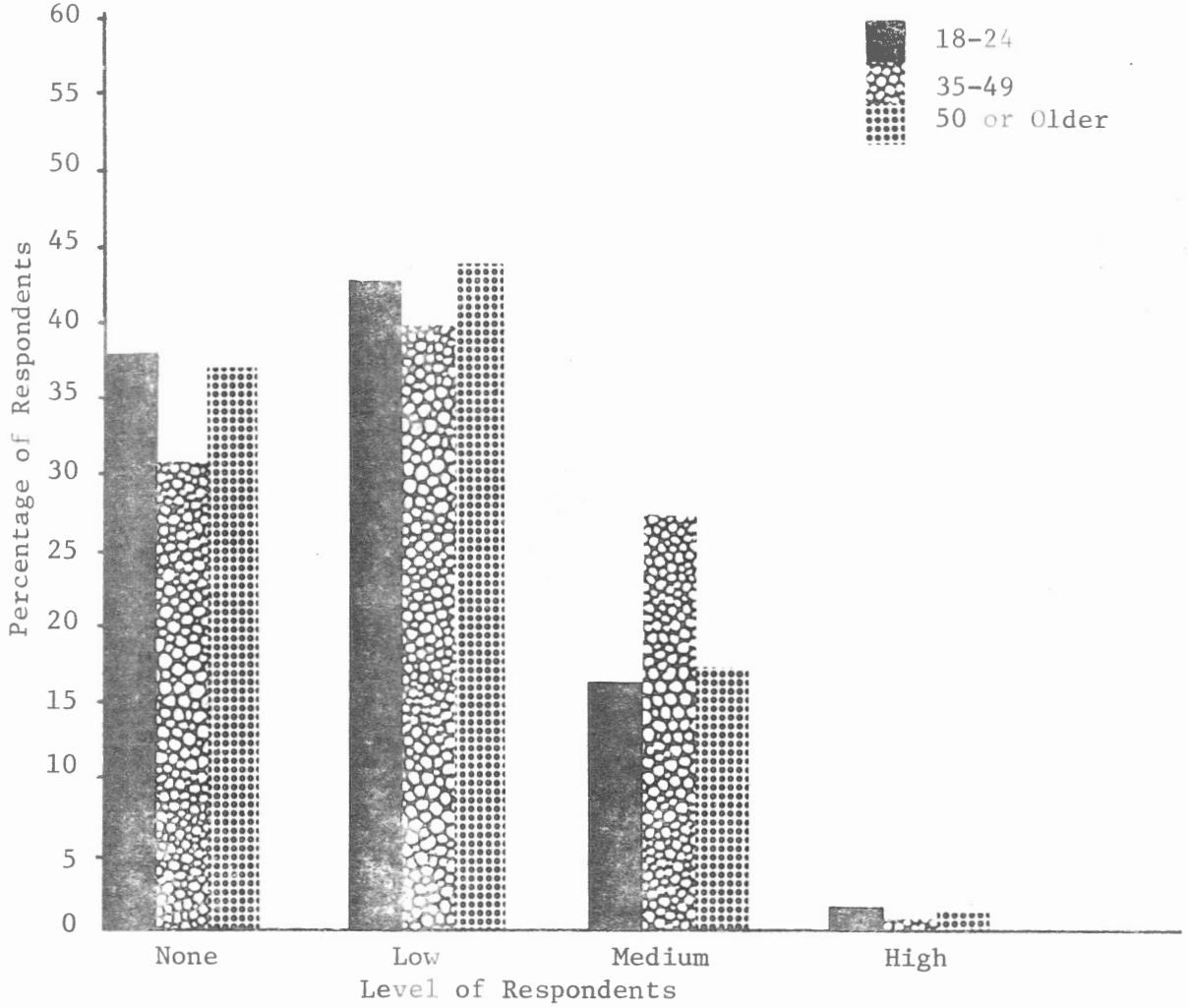

Figure 2. Level of Awareness by Age

individuals having no awareness was least among the 35 to 49 age group. Residents between the ages of 18 and 24 had the highest percentage of no awareness, but also had the highest percentage of high awareness. Residents over 50 generally had a low level of awareness of OSU Ag Instruction.

The largest contribution to the total Chi-square value was found in the fact that the 35 to 49 age group had more respondents with medium awareness of OSU Ag Instruction than could be expected by chance. The cell contributed 12.1 to the total Chi-square value of 23.94.

Awareness of OSU Ag Instruction by Occupation

There is no relationship between occupations held by Oklahomans and their level of awareness of OSU Ag Instruction was the hypothesis stated in Chapter III.

One hundred and twenty-seven respondents were in agriculture or agriculture-related occupations and 1,260 individuals were involved in business-labor occupations. Of the agriculture or related occupations, 74.8 percent of the respondents were aware of OSU Ag Instruction. This compared to 63.1 percent of the business and labor occupations. These data are shown in Table XXIII.

It was evident by a calculated Chi-square value of 27.61 at the .0001 significance level that there was a relationship between agriculture or agriculture-related occupations and business or labor occupations and an awareness of OSU Ag Instruction.

Figure 3 indicates that residents with agriculture or agriculture-related occupations had a higher level of awareness than residents with

TABLE XXIII

OCCUPATION DISTRIBUTION BY AWARENESS

Level of Awareness	Levels by Occupation								Total	
	Agriculture		Agriculture Related		Business		Laborer			
	N	%	N	%	N	%	N	%	N	%
0	27	1.95	5	0.36	126	9.08	339	24.44	497	35.83
1	18	1.30	7	0.50	125	9.10	226	16.29	376	27.11
2	19	1.37	1	0.07	93	6.71	105	7.57	218	15.27
3	12	0.87	4	0.29	50	3.60	63	4.54	129	9.30
4	15	1.08	4	0.29	25	1.80	33	2.38	77	5.55
5	5	0.36	3	0.22	18	1.30	17	1.23	43	3.10
6	1	0.07	3	0.22	12	0.87	13	0.94	29	2.09
7	1	0.07	0	0.00	6	0.43	1	0.07	8	0.58
8	1	0.07	0	0.00	2	0.14	2	0.14	5	0.36
9	1	0.07	0	0.00	1	0.07	0	0.00	2	0.14
10	0	0.00	0	0.00	0	0.00	1	0.07	1	0.07
11	0	0.00	0	0.00	1	0.07	1	0.07	2	0.14
15	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
16	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
TOTAL	100	7.21	27	1.95	459	33.09	801	57.75	1387	100.00

$X^2 = 27.61$, df = 3, $p = .0001$. The Chi-square value was calculated by combining cells within variable occupation to make a 4 x 2 contingency table as reflected in Figure 3.

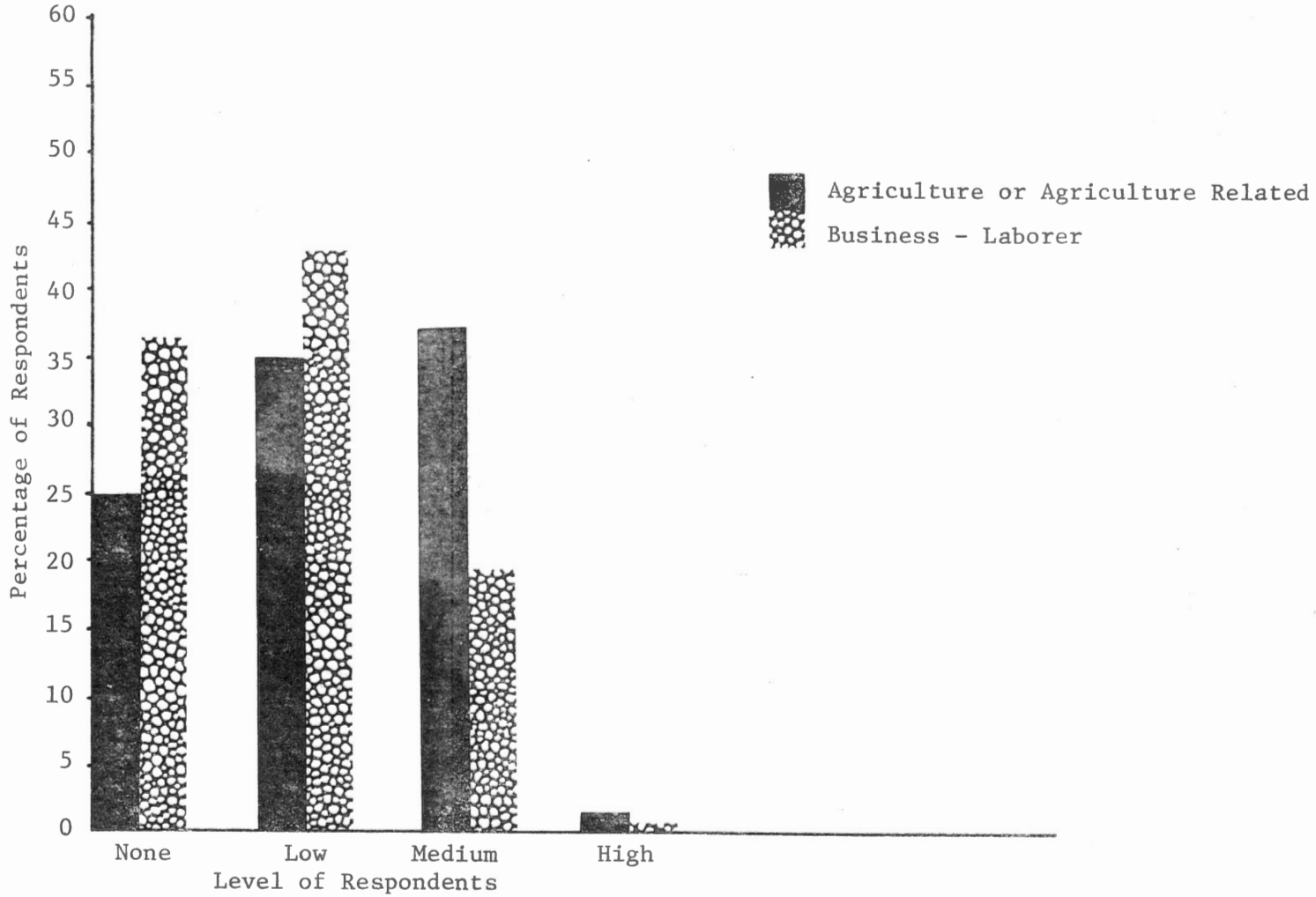

Figure 3. Awareness by Occupation

occupations in business or labor. Agricultural occupations accounted for 1.57 percent of the residents with scores of eight or more awareness points. Business and labor occupations accounted for 0.63 percent within the high level of awareness.

Awareness of OSU Ag Instruction by Involvement

The null hypothesis stated: There is no relationship between level of awareness of OSU Ag Instruction and Oklahoma residents' involvement with agriculture.

Table XXIV indicates how residents of Oklahoma perceive their involvement in agriculture and shows the respondents' level of awareness of OSU Ag Instruction. Seven hundred and thirty-nine respondents or 46.27 percent perceived themselves as being involved in agriculture. Eight hundred and fifty-eight respondents or 53.73 percent said they were not involved in agriculture. Of the respondents who indicated they were involved in agriculture, 70.50 percent had some awareness of OSU Ag Instruction. Of those not involved in agriculture, 58.04 percent had some awareness of OSU Ag Instruction.

A Chi-square value of 75.78 with a probability level of .0001 indicated that there was a relationship between level of awareness and the perceived involvement of Oklahoma residents with agriculture. The data in Figure 4 show this relationship and were derived from Table XXIV.

Awareness of OSU Ag Instruction and How Involved

If the respondents indicated a perceived involvement in agriculture,

TABLE XXIV

PERCEIVED INVOLVEMENT IN AGRICULTURE BY AWARENESS

Level of Awareness	Distribution by Agriculture Involvement				Total	
	Involved		Not Involved			
	N	%	N	%	N	%
0	218	13.65	360	22.54	578	36.19
1	183	11.46	267	16.72	450	28.18
2	116	7.26	121	7.58	237	14.84
3	80	5.01	65	4.07	145	9.08
4	65	4.07	21	1.31	86	5.39
5	33	2.07	11	0.69	44	2.76
6	25	1.57	7	0.44	32	2.00
7	8	0.50	1	0.06	9	0.56
8	6	0.38	1	0.06	7	0.44
9	2	0.13	1	0.06	3	0.19
10	0	0.00	1	0.06	1	0.06
11	0	0.00	2	0.13	2	0.13
15	1	0.06	0	0.00	1	0.06
16	2	0.13	0	0.00	2	0.13
TOTAL	739	46.27	858	53.73	1597	100.00

$X^2 = 75.776$, df = 3, $p = .0001$. The Chi-square value was calculated by combining cells within variables agriculture involvement to make a 4 x 2 contingency table as reflected in Figure 4.

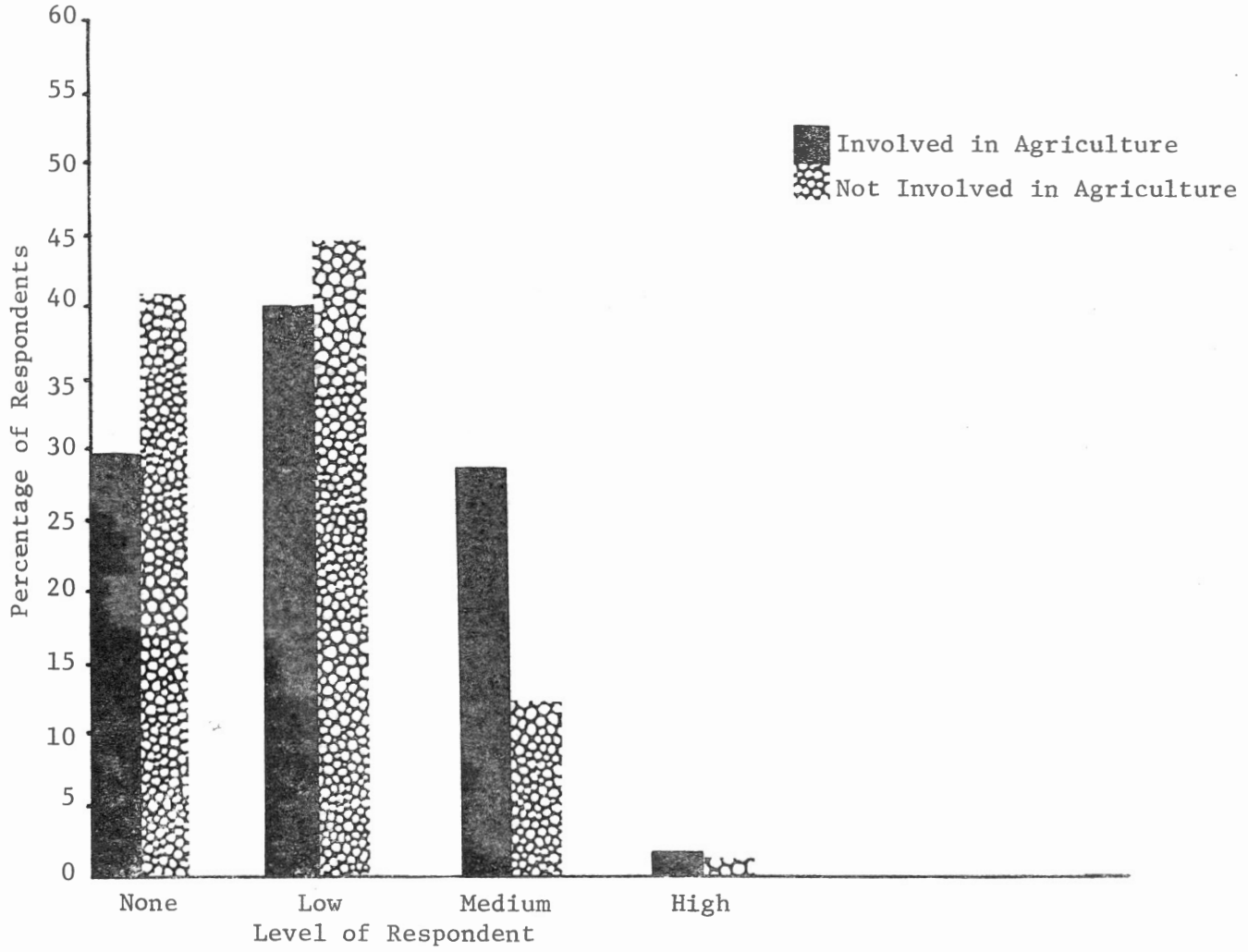

Figure 4. Awareness by Involvement

they were then asked how they perceived themselves as being involved in agriculture. Table XXV shows the distribution of respondents and how they were involved in agriculture.

It was determined that 56.97 percent of the total respondents (732) were involved in gardening and 24.59 percent were part-time farmers; 12.29 percent were classified as other and 6.15 percent were involved in agri-business. Of the total respondents, 70.22 percent were aware of OSU Ag Instruction. Individuals in the category "other" had the highest level of awareness, while those individuals who considered themselves part-time farmers scored less than three awareness points placing them in the low awareness level.

The Chi-square value of 46.166 was significant at the .0001 level. The Chi-square value indicated there is a relationship of awareness of OSU Ag Instruction among how residents were involved in agriculture. Figure 5 shows the relationship between how the respondents were involved with agriculture and their awareness of OSU Ag Instruction.

Awareness of OSU Ag Instruction by Education

The null hypothesis stated: There is no relationship between level of awareness of OSU Ag Instruction and the educational level of Oklahoma residents.

Of the 1,582 respondents, 42.48 percent had three to four years of high school, while 37.92 percent had college training. About 63.59 percent of the respondents had some awareness of OSU Ag Instruction. Residents with over four years of college had the highest level of awareness of OSU Ag Instruction, while residents with zero to eight years of

TABLE XXV

HOW INVOLVED IN AGRICULTURE BY AWARENESS

Level of Awareness	Distribution by How Involved								Total	
	Part-Time Farming		Gardening		Agri-Business		Other			
	N	%	N	%	N	%	N	%	N	%
0	35	4.78	152	20.77	8	1.09	23	3.14	218	29.78
1	44	6.01	109	14.89	9	1.23	21	2.87	183	25.00
2	36	4.92	61	8.33	2	0.27	19	2.19	115	15.71
3	27	3.69	35	4.78	7	0.96	9	1.23	78	10.66
4	15	2.05	29	3.96	10	1.37	9	1.23	63	8.61
5	13	1.78	12	1.64	2	0.27	4	0.55	31	4.23
6	6	0.82	13	1.78	4	0.55	2	0.27	25	3.42
7	1	0.14	3	0.41	2	0.27	2	0.27	8	1.09
8	2	0.27	1	0.14	1	0.14	2	0.27	6	0.82
9	0	0.00	1	0.14	0	0.00	1	0.14	2	0.27
10	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
11	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
15	0	0.00	1	0.14	0	0.00	0	0.00	1	0.14
16	1	0.14	0	0.00	0	0.00	1	0.14	2	0.27
TOTAL	180	24.59	417	56.97	45	6.15	90	12.30	732	100.00

$X^2 = 46.166$, df = 9, p = .0001. The Chi-square value was calculated by combining cells within variables how involved in agriculture to make a 4 x 4 contingency table as reflected in Figure 5.

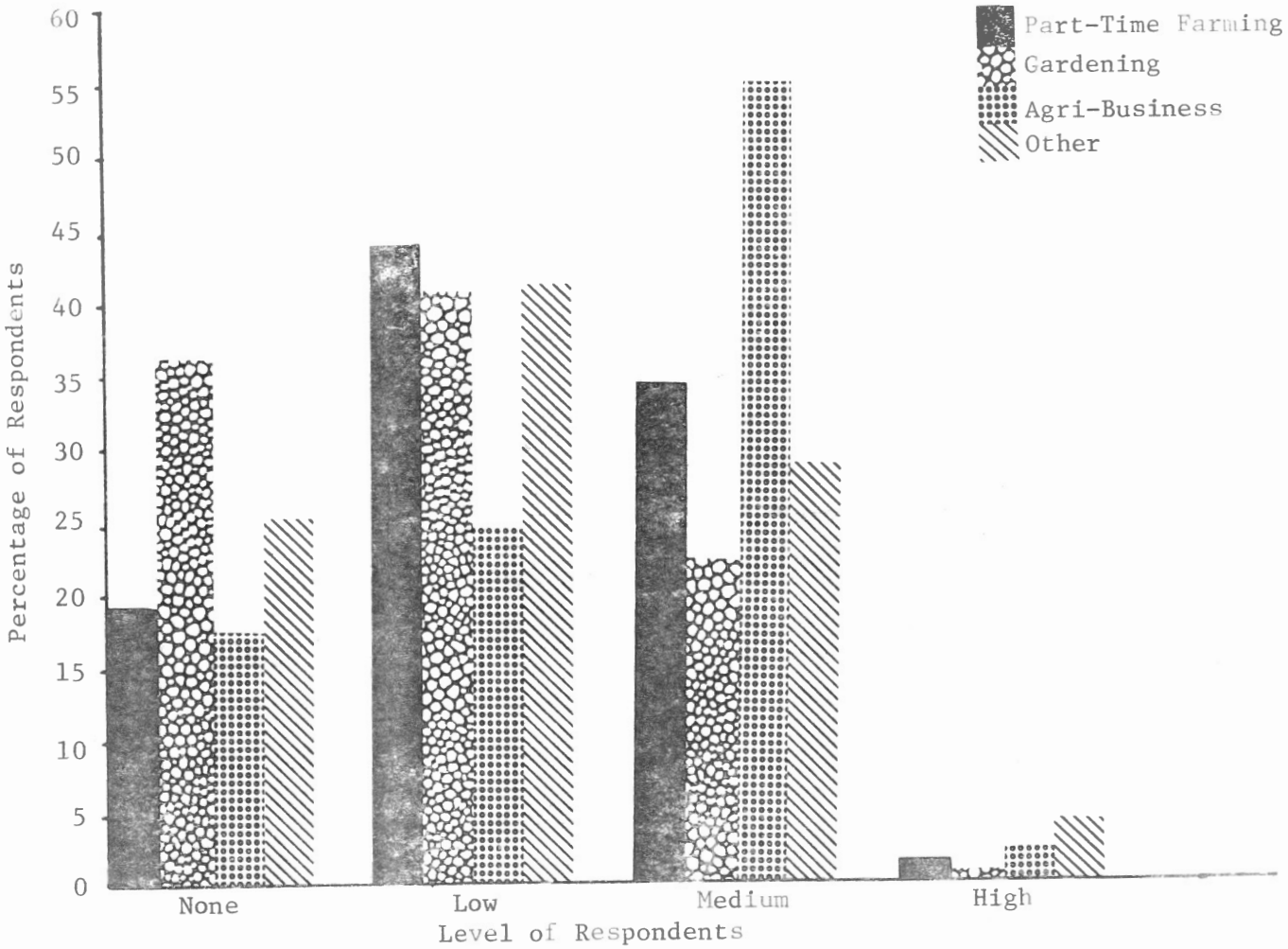

Figure 5. Awareness by How Involved

schooling had the highest percentage of no awareness. The data are presented in Table XXVI.

Awareness of OSU Ag Instruction by Race

The null hypothesis stated: There is no relationship between the race of Oklahoma residents and their level of awareness of OSU Ag Instruction.

The data in Table XXVII indicate that 91.27 percent of the residents were white, 4.68 percent were Black, and 3.24 percent Indian. Other racial groups contributed 0.81 percent of the 1,604 individuals responding. The highest percentage (76.92) of no awareness were residents placed in the category "other." Fifty-six percent of the Black respondents indicated no awareness, while 35.18 percent of the white respondents indicated no awareness of OSU Ag Instruction. The data show that the white respondents had the highest percentage of individuals (1.09) with a high level of awareness.

The Chi-square value of 29.705 with a probability of .0005 indicated a significant relationship between awareness and among racial/ethnic groups. This relationship can be seen in Figure 7.

Awareness of OSU Ag Instruction by Sex

The null hypothesis stated: There is no relationship between male or female residents and their level of awareness of OSU Ag Instruction.

Table XXVIII shows that 62.86 percent of the 1,637 respondents were female and 37.14 percent were male. Of the respondents, 63.10 percent had some awareness of OSU Ag Instruction. Female respondents had the highest percentage of no awareness.

TABLE XXVI

EDUCATION BY AWARENESS

Level of Awareness	Distribution by Education													
	0-8 Years		1-2 Years High School		3-4 Years High School		1-2 Years College		3-4 Years College		Over 4 College		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0	115	7.27	75	4.74	272	17.19	64	4.05	37	2.34	13	0.82	576	36.41
1	48	3.04	33	2.09	203	12.83	74	4.68	64	4.05	20	1.26	442	27.94
2	15	0.95	7	0.44	92	5.82	51	3.22	43	2.72	26	1.64	234	14.79
3	4	0.25	3	0.19	55	3.48	33	2.09	27	1.71	23	1.45	145	9.17
4	2	0.13	5	0.32	24	1.52	19	1.20	19	1.20	16	1.01	85	5.37
5	1	0.06	1	0.06	12	0.76	7	0.44	13	0.82	9	0.57	43	2.72
6	0	0.00	1	0.06	6	0.38	5	0.32	13	0.82	7	0.44	32	2.02
7	0	0.00	0	0.00	3	0.19	1	0.06	1	0.06	4	0.25	9	0.57
8	0	0.00	0	0.00	1	0.06	1	0.06	2	0.13	3	0.19	7	0.44
9	0	0.00	0	0.00	1	0.06	1	0.06	1	0.06	0	0.00	3	0.19
10	0	0.00	0	0.00	0	0.00	1	0.06	0	0.00	0	0.00	1	0.06
11	0	0.00	0	0.00	1	0.06	1	0.06	0	0.00	0	0.00	2	0.13
15	0	0.00	0	0.00	1	0.06	0	0.00	0	0.00	0	0.00	1	0.06
16	0	0.00	0	0.00	1	0.06	0	0.00	1	0.06	0	0.00	2	0.13
TOTAL	185	11.69	125	7.90	672	42.48	258	16.31	221	13.97	121	7.65	1582	100.00

X^2 = 245.481, df = 15, p = .0001. The Chi-square value was calculated by combining cells within variables education by awareness to make a 4 x 6 contingency table as reflected by Figure 6.

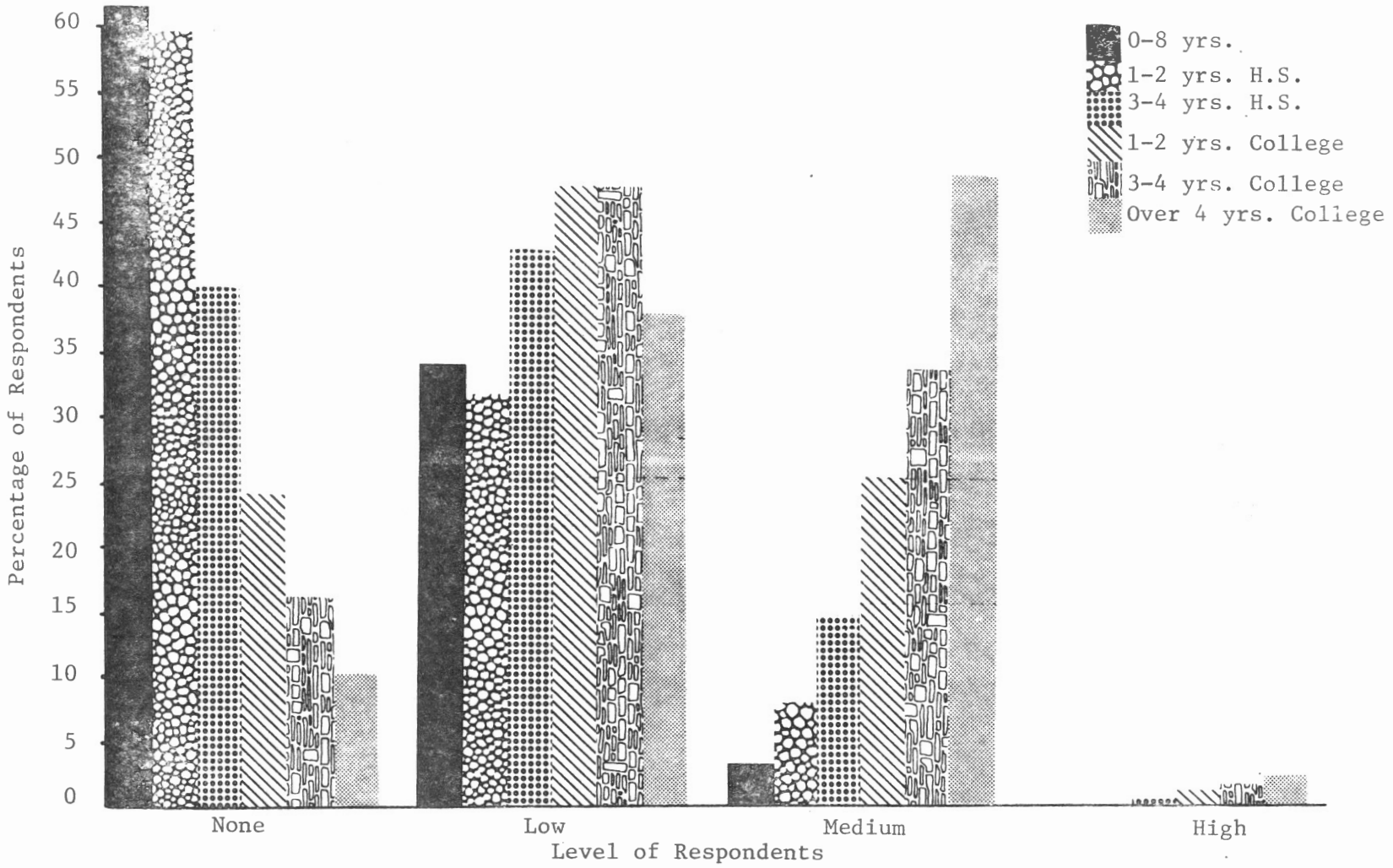

Figure 6. Level of Awareness by Education

TABLE XXVII

RACE BY AWARENESS

Level of Awareness	Distribution by Race												Total	
	White		Black		Indian		Asian		Hispanic		Other			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
0	515	32.11	42	2.62	18	1.12	1	0.06	9	0.56	0	0.00	585	36.47
1	422	26.31	20	1.25	11	0.69	0	0.00	0	0.00	1	0.06	454	28.30
2	221	13.78	8	0.50	0	0.00	0	0.00	0	0.00	0	0.00	237	14.78
3	132	8.23	2	0.12	7	0.44	1	0.06	0	0.00	0	0.00	142	8.85
4	78	4.86	1	0.06	5	0.31	0	0.00	0	0.00	1	0.06	85	5.30
5	42	2.62	1	0.06	1	0.06	0	0.00	0	0.00	0	0.00	44	2.74
6	30	1.87	1	0.06	1	0.06	0	0.00	0	0.00	0	0.00	32	2.00
7	8	0.50	0	0.00	1	0.06	0	0.00	0	0.00	0	0.00	9	0.56
8	7	0.44	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	7	0.44
9	3	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.19
10	1	0.06	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.06
11	2	0.12	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.12
15	1	0.06	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.06
16	2	0.12	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.12
TOTAL	1464	91.27	75	4.68	52	3.24	2	0.12	9	0.56	2	0.12	1604	100.00

$X^2 = 29.905$, df = 69, $\underline{p} = .0005$. The Chi-square value was calculated by combining cells within variables race by awareness to make a 4 x 4 contingency table as reflected in Figure 7.

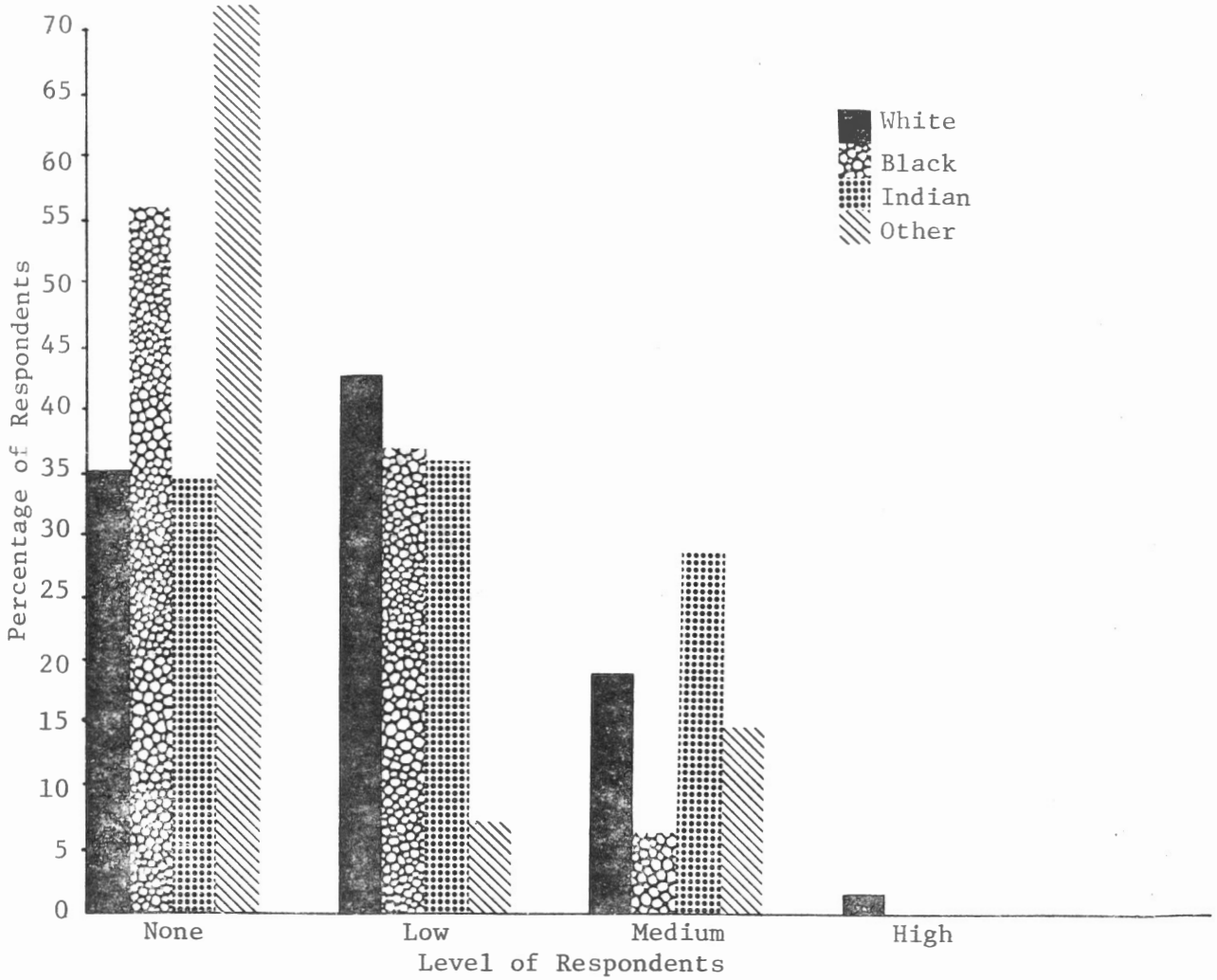

Figure 7. Level of Awareness by Race

TABLE XXVIII

SEX BY AWARENESS

Level of Awareness	Distribution by Sex				Total	
	Female		Male			
	N	%	N	%	N	%
0	418	25.53	186	11.36	604	36.90
1	294	17.96	164	10.02	458	27.98
2	145	8.86	94	5.74	239	14.60
3	85	5.19	62	3.79	147	8.98
4	42	2.57	46	2.81	88	5.38
5	20	1.22	24	1.47	44	2.69
6	15	0.92	17	1.04	32	1.95
7	3	0.18	6	0.37	9	0.55
8	2	0.12	5	0.31	7	0.43
9	2	0.12	1	0.06	3	0.18
10	0	0.00	1	0.06	1	0.06
11	2	0.12	0	0.00	2	0.12
15	0	0.00	1	0.06	1	0.06
16	1	0.06	1	0.06	2	0.12
TOTAL	1029	62.85	608	37.14	1637	100.00

X^2 = 30.418, df = 3, p = .0001. The Chi-square value was calculated by combining cells within variables sex by awareness to make a 4 x 2 contingency table as reflected in Figure 8.

The male respondents had the highest percentage (1.41) of awareness of OSU Ag Instruction, while the female percentage of high awareness was 0.68. Both females and males had 42.00 percent of the individuals in the low awareness level.

The Chi-square value of 30.418 was significant at the .0001 level. The Chi-square value indicated a strong relationship between awareness and sex. Figure 8 shows this relationship.

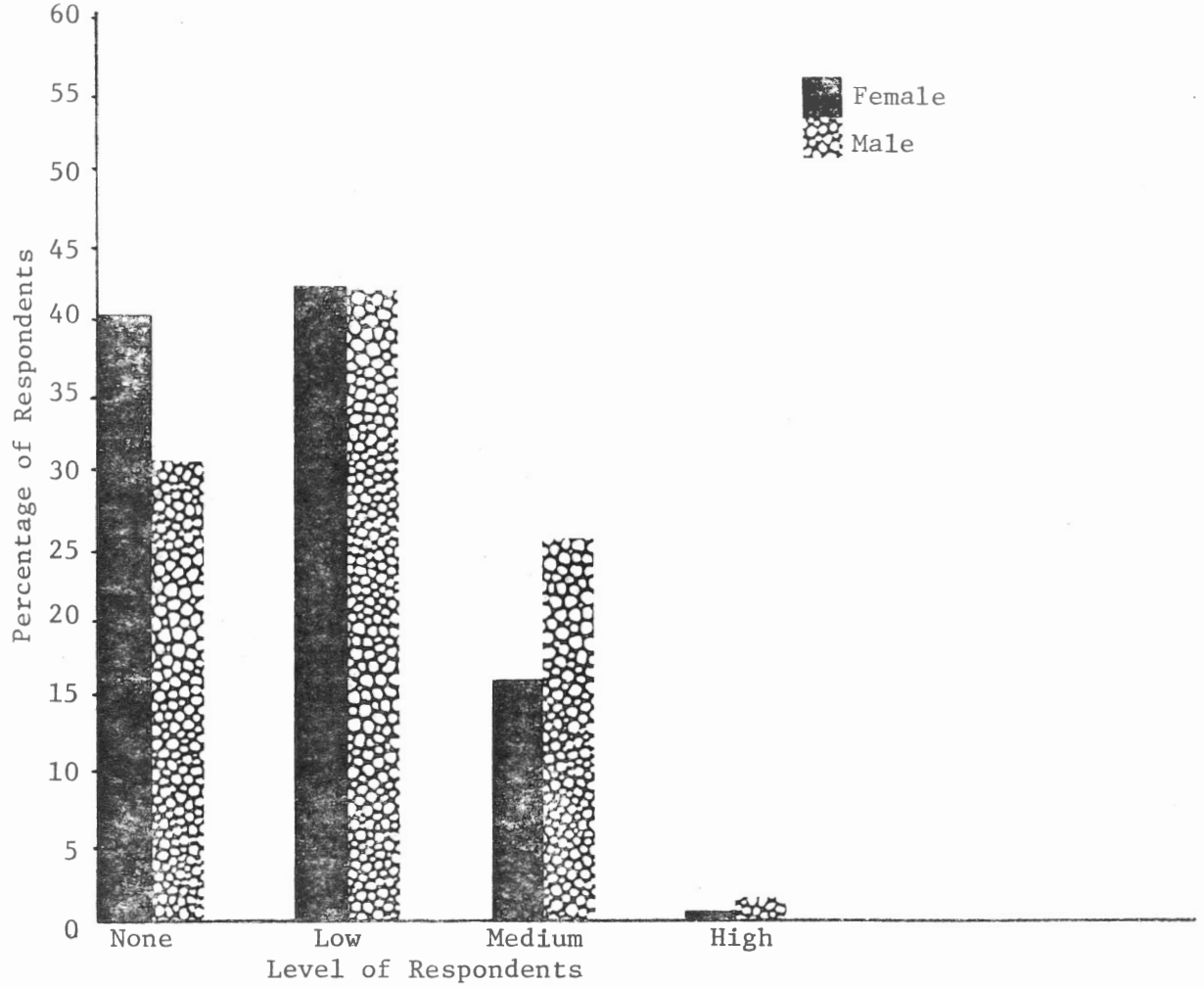

Figure 8. Level of Awareness by Sex

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Purpose of the Study

The primary purpose of this study was to determine a baseline perceptional awareness of the Oklahoma public of OSU Ag Instruction, and to compare the perceived awareness of groups comprising different sex, occupation, age, income, education, agriculture involvement, and ethnic categories.

Rationale for the Study

The primary aim of the Morrill Act of 1862 was to provide each state with a land-grant college. Congress provided these funds for instruction in agriculture, mechanic arts, and the liberal arts.

McInnis indicated that there was a practical relationship between the experiment station and instruction; their purpose is investigation, but the final use of investigation is instruction (cited by Rulon, 26).

Because of instruction's role in the land-grant institution and because of the push of accountability in the 1970's, it was deemed timely to investigate the general public's awareness of OSU Ag Instruction and how they rate the instructional program at Oklahoma State University.

Design of the Study

A review of literature and research related to the study was done, and procedures were established to satisfy the purpose of the study.

A stratified random sampling technique was used to sample the population of the state of Oklahoma. The stratification of the sample was based upon the levels of county government expenditures provided to cooperative extension programs, geographical location, and the total county population estimates for 1978. Fourteen counties were used in the sample.

A complete up-to-date list of telephone directories which included the 14 counties was used to randomly select the individuals who made up the sample. Each telephone book was logged into a computer program by first and last white page numbers, number of columns per page, and number of lines per column. With the use of this computer program, a random group of telephone numbers was selected to be used in the study as prospective respondents. Two thousand four hundred and one individuals were utilized for this study. This figure represented a 98 percent confidence level which indicated the sample was representative of the general population in Oklahoma.

A telephone survey-interview was used to collect the data in this study. The questionnaire was a four-part survey instrument designed to measure awareness of Ag Instruction, Extension, and Research, and included demographic data for each respondent. This study used six questions designed to obtain information about "OSU Ag Instruction" and the demographic information. The six questions dealing with "OSU Ag Instruction" determined an awareness level, by weighted values, for each forced

response and the subjects offered at the University. The respondents were also asked to rate "OSU Ag Instruction."

The telephone survey was conducted during the spring of 1980. One thousand six hundred and sixty-two individuals provided responses to the survey.

A Statistical Analysis System (S.A.S.) program was used in calculating frequency and Chi-square values. Numerical and percentage calculations were obtained from the computer program. The Chi-square analysis was used to determine if significant relationships occurred between awareness and demographic variables which affected awareness. The Chi-square value was used to determine if the null hypotheses should be accepted or rejected.

Characteristics of Respondents

General characteristics of respondents in this study indicated that 66.05 percent had incomes of less than $20,000. Approximately 13.62 percent had incomes less than $5,000.

The majority of the respondents participating in the study were between the ages of 35 to 49, while 14.05 percent were 18 to 24. There were 22.16 percent of respondents 63 and over.

Over one-half of the respondents indicated they lived in households of two or less people. About 11.54 percent indicated household sizes of five or more.

Approximately 7.21 percent of the respondents had occupations in agriculture, 1.95 in agriculture-related occupations, and 33.09 percent were employed in business. Laborers comprised the largest percentage of the respondents with 57.75 percent.

Nearly 54 percent of the respondents were involved in agriculture and 46.27 percent perceived themselves as being involved in agriculture. Of the respondents perceiving themselves as being involved in agriculture, 6.15 percent were in agri-business, 24.59 percent were part-time farmers, and 56.97 percent were involved in gardening. About 12.30 percent of the respondents placed themselves in the "other" category.

Approximately 37.93 percent of the respondents had attended at least one year of college and 50.08 percent had been to high school.

White respondents made up 91.27 percent of the population sample, while 4.68 percent were Black and 3.24 percent were Indian. Asian, Hispanic, and "others" made up the remaining 0.80 percent.

Nearly 62.86 percent of the Oklahoma residents responding to the survey were female, with 37.14 percent representing the male population.

Awareness Questions

Over 50 percent of the respondents participating in the study indicated they had been on the Oklahoma State University campus. Respondents indicating a "yes" to this question received one awareness point.

About 14 percent indicated they had been on the campus of Oklahoma State University for an agriculture or agriculturally related event. This question also had a weighted value of one point.

A score of one awareness point was given to anyone who studied agriculture or knew someone who studied agriculture at Oklahoma State University. Thirty-eight percent of the respondents indicated they either studied or had contact with someone who studied agriculture at the University.

Each of the subjects offered at Oklahoma State University in the College of Agriculture was divided into three groups. Group one included Horticulture, Animal Science, Agronomy, Pre-Vet Medicine, and Agricultural Economics. Group two was represented by Agricultural Education, Plant Pathology, Agricultural Engineering, Forestry, and Agricultural Economics. Group three included Mechanized Agriculture, Entomology, Agriculture Communications/Journalism, and Biochemistry. Group one received one awareness point, group two received two, and group three received three awareness points. Each subject was placed into groups according to expected familiarity of that subject.

The total number of points that a respondent could accumulate if he answered all of the questions was 28. The highest number of points accumulated by any of the respondents was 16.

Residents of Oklahoma recognized Animal Science most often with Pre-Vet and Agronomy representing second and third. Agriculture Communications/Journalism was the least recognized subject, with Mechanized Agriculture following. A complete analysis of these data can be seen in Table XIX.

To determine how the general public in Oklahoma rated instruction in agriculture at Oklahoma State University, each respondent was asked to rate the program "high" or "low." The category "Don't know/Not sure" was added for those individuals who could not rate the instructional program. Of those respondents responding to this question, 54.56 percent rated OSU Ag Instruction "high." About 45.13 percent were "not sure" and only two respondents rated the program "low."

Awareness of Respondents

This study attempted to determine the level of awareness of OSU Ag Instruction by the residents of Oklahoma. In order to determine the level of awareness of OSU Ag Instruction, the following hypotheses were tested:

1. There is no relationship between levels of awareness of OSU Ag Instruction and levels of income of Oklahoma residents. (This hypothesis was rejected.)

2. There is no relationship between levels of awareness of OSU Ag Instruction and age of Oklahoma residents. (This hypothesis was rejected.)

3. There is no relationship between occupations held by Oklahomans and their level of awareness of OSU Ag Instruction. (This hypothesis was rejected.)

4. There is no relationship between level of awareness of OSU Ag Instruction and Oklahoma residents' involvement with agriculture. (This hypothesis was rejected.)

5. There is no relationship between level of awareness of OSU Ag Instruction and the educational level of Oklahoma residents. (This hypothesis was rejected.)

6. There is no relationship between the race of Oklahoma residents and their level of awareness of OSU Ag Instruction. (This hypothesis was rejected.)

7. There is no relationship between male or female residents and their level of awareness of OSU Ag Instruction. (This hypothesis was rejected.)

Conclusions

Based on an analysis of data collected, analyzed, and presented in the study, certain conclusions can be suggested about the level of awareness of OSU Ag Instruction. The major conclusions drawn in this study are presented as follows:

1. The income of the Oklahoma resident influences awareness of OSU Ag Instruction.

2. Based on the findings, Oklahoma residents between the ages of 18 and 24 are more aware of OSU Ag Instruction than those individuals over 50. It appears that younger residents are more aware than older residents in Oklahoma.

3. The occupation of Oklahoma residents is a factor in the awareness of OSU Ag Instruction. Oklahoma residents whose occupation is agriculture or agriculture related are more aware of OSU Ag Instruction than Oklahomans with business or labor occupations.

4. The involvement of Oklahoma residents with agriculture influences their awareness of OSU Ag Instruction. Those residents who perceive themselves involved with agriculture have a higher awareness than Oklahoma residents with no involvement with agriculture.

5. Educational level influences the awareness of OSU Ag Instruction. As the level of education increases, awareness of OSU Ag Instruction increases.

6. Race is a determining factor in the awareness of OSU Ag Instruction. Even when differences in group sizes were considered, white's had the highest level of awareness followed by Blacks, Indians, and other races or ethnic groups.

7. Sex of respondents influences the awareness of OSU Ag Instruction. Even though more females were sampled, males have a higher level of awareness of OSU Ag Instruction.

8. Based on the findings that 54.56 percent of the respondents rated OSU Ag Instruction "high" and only two rated it "low," it was concluded that those Oklahoma residents with some awareness of the University tend to rate its instructional program "high."

Recommendations

Based on the data analysis and findings of the study, the following recommendations are made:

1. Based on the number of subjects recognized by Oklahoma residents, the instructional program at Oklahoma State University should develop a public relations program designed to acquaint Oklahoma residents that are not attending the University with the course offerings in the College of Agriculture.

2. OSU Ag Instruction should continue to place an emphasis on instruction and the quality of teaching to maintain its high rating.

3. Based on the findings that approximately 15 percent of the respondents had been on the Oklahoma State University campus, programs should be designed to acquaint potential students and parents in urban areas of career choices in agriculture.

Additional Research

The following section of recommendations is divided into two parts: (1) methodology and (2) additional research.

Methodology

1. In using a telephone survey, the caller should have a clear understanding of the instrument and should receive intensive training in obtaining information from respondents.

2. A systematic procedure should be developed to obtain a proportional representation of male and female respondents.

3. As further research is developed, consideration should be given to separating the functions of instruction, extension, and research into individual units.

Additional Research

1. It is recommended that a more comprehensive study be conducted to determine the awareness of OSU Ag Instruction in urban areas of the State.

2. It is felt that a particular need exists for additional research information to determine how Oklahoma State University alumni perceive OSU Ag Instruction.

3. It is recommended that OSU Ag Instruction be continually alert to opportunities to evaluate the instructional program and assess its image among the general public of Oklahoma.

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APPENDIXES

APPENDIX A

INSTRUMENT

COUNTY _____ DATE _____ TIME _____ NUMBER _____

1. Hello_____, my name is _____and I am with Oklahoma State University at Stillwater. May we have a few minutes of your time to ask you a few questions concerning "agriculture" at O.S.U.?

1 [1 Yes / 2 No----Thank you, Good-bye.]

2. Have you ever been on the Oklahoma State University campus?

2 [1 Yes / 2 No----Move to Question #4.]

3. Have you been on the O.S.U. campus for an agricultural event?

3 [1 Yes / 2 No]

4. Do you know of anyone who has studied agriculture at O.S.U.?

4 [1 Yes / 2 No]

5. Can you identify any of the subjects offered in agriculture at O.S.U.? Which subjects?

1 Don't Know/Not Sure--Move to Question #7.

5-19
- 02 Ag Communications/Journalism
- 03 Ag Economics
- 04 Ag Education
- 05 Ag Engineering
- 06 Agronomy
- 07 Animal Science
- 08 Biochemistry
- 09 Entomology
- 10 Forestry
- 11 Horticulture
- 12 Plant Pathology
- 13 Mech Ag
- 14 Pre-Vet
- 15 Other_____

6. How would you rate instruction in agriculture at Oklahoma State University?

20 [1 High / 2 Low / 3 Don't Know/Not Sure]

7. Do you have an agriculture extension office in your county?

21 [1 Yes / 2 No]

8. Have you or any member of your family ever been involved with or been a member of:

22-24 [1 Yes 4-H youth program / 2 Yes Extension homemaker's club / 3 Yes Other agricultural or related extension groups]

9. Have you ever had any contact with or heard of the following extension personnel in your county?

25-28 [1 Yes _____agricultural agent / 2 Yes _____home economist / 3 Yes _____4-H agent / 4 Yes Raymond Kays, Extension Horticulture Specialist]

10. Have you ever contacted the county extension office for any information?

29 [1 Yes / 2 No----Move to Question #14]

11. How was the contact made?

30 [1 Called / 2 Written / 3 Personal contact]

12. Have you participated in any meetings sponsored by the ag extension service?

31 [1 Yes / 2 No----Move to Question #14.]

13. How valuable was the information you received at these meetings?

32 [1 Valuable / 2 No Value / 3 Not Sure]

14. Do you read news columns written by extension agents?

33 [1 Yes / 2 No]

15. Do you listen to radio or watch T.V. programs by extension personnel?

34 [1 Yes / 2 No]

16. Have you or any member of your family provided exhibits for a county or state fair?

35 [1 Yes / 2 No / 3 Don't Know/Not Sure]

17. Would you like to receive information about the extension programs available to you?

36 [1 Yes / 2 No]

18. Do you think increased funding for the Oklahoma Cooperative Extension Service would be beneficial to the people of Oklahoma?

37 [1 Yes / 2 No]

19. Were you aware that Oklahoma State University has agricultural research farms throughout the state of Oklahoma?

38 [1 Yes / 2 No----Move to Question #22.]

20. Where is the closest O.S.U. agricultural research farm to your location?

39 [1 Location / 2 Do not know]

40-41

03	Stillwater	11	Chickasha
04	Woodward	12	Stratford
05	Mangum	13	Sparks
06	Altus	14	Pawhuska
07	Tipton	15	Bixby
08	Fort Cobb	16	Haskell
09	Lahoma	17	Idabel
10	El Reno	18	Lamar

21. Have you or anyone you know taken a field trip or tour to an O.S.U. Agricultural Research Farm?

42 [1 Yes / 2 No]

22. Have you or anyone you know used O.S.U. Agricultural Research results on their farm or home grounds?

43 [1 Yes / 2 No----Move to Question #24.]

23. How many times have you personally used agricultural research?

44 [1 One time / 2 Two to three times / 3 Four or more times]

24. If there were no agricultural research, would food prices be higher or lower?

45 [1 Higher / 2 Lower / 3 Don't Know/Not Sure]

25. Where has your main source of information about agriculture research at O.S.U. come from: reading, hearing, or personal observation?

46-48

1 Reading
- 11 Magazines
- 12 Newspaper
- 13 Fact Sheets
- 14 Other_____

2 Hearing
- 21 Radio
- 22 Television
- 23 Friend
- 24 County Agent
- 25 Other_____

3 Personal Observation
- 31 On a farm
- 32 Garden plot
- 33 O.S.U. Research Farm
- 34 Other_____

4 Don't Know/Not Sure

26. How much input do you think the Oklahoma public has had in determining agricultural research efforts at O.S.U.?

49 [1 Large / 2 Small / 3 None / 4 Don't Know/Not Sure]

_____, I would like to ask some questions about you. This information will be kept in strictest confidence.

27. Of the following ranges, which one most closely approximates the total gross income of your household?

50
1 Less than $5,000
2 5,000 to 10,000
3 10,000 to 15,000
4 15,000 to 20,000
5 20,000 to 25,000
6 25,000 to 50,000
7 Over 50,000

28. What year were you born?

51
1 18-24, 1956-1962
2 25-34, 1946-1955
3 35-49, 1931-1945
4 50-62, 1918-1930
5 63 or over, before 1917

29. How many people reside in your household?

52
1 1 6 6
2 2 7 7
3 3 8 8
4 4 9 9 or more
5 5

30. What is your occupation?

_____

53
1 Agriculture
2 Agriculture Related
3 Business
4 Laborer

31. Are you involved in agriculture in any way?

54
1 Yes
2 No----Move to Question #33.

32. How are you involved?

55
1 Part-time farming
2 Gardening
3 Agri-business
4 Other_____

33. What is the highest grade you have completed in school?

56
1 0-8 years
2 1-2 years of high school
3 3-4 years of high school
4 1-2 years of college
5 3-4 years of college
6 Over 4 years of college

34. With which racial/ethnic group do you belong to?

57
1 Caucasian/White
2 Black
3 Indian (American or Alaskan)
4 Asian or Pacific Islander
5 Hispanic (Spanish origin)
6 Other_____

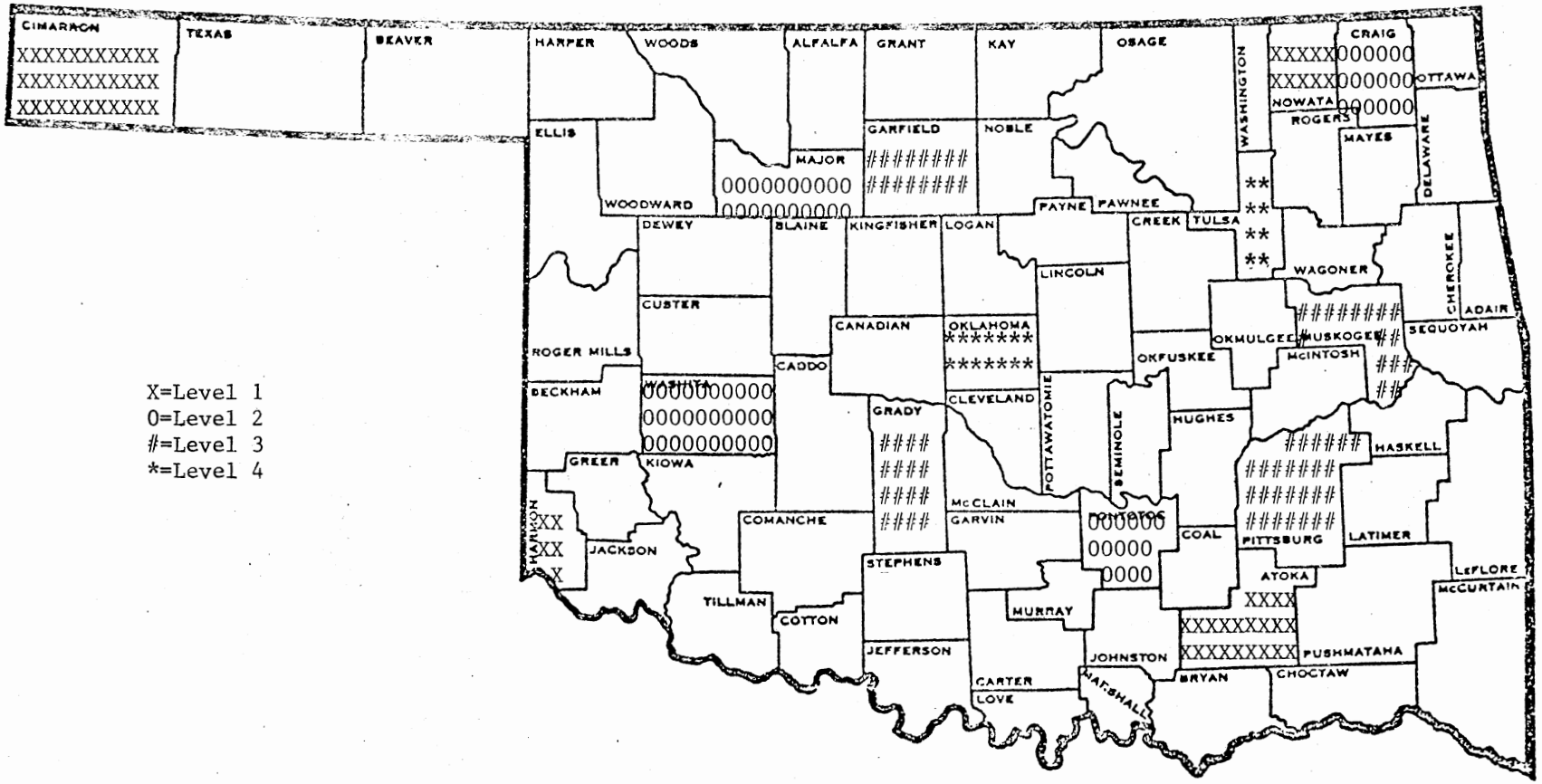
35. What is your sex?

58
1 Female
2 Male

_____, thank you very much for your time. This information will be a benefit to our study. Thanks again. Good-bye.

APPENDIX B

COUNTY LEVEL AND GEOGRAPHIC LOCATION



X=Level 1
0=Level 2
#=Level 3
*=Level 4

Figure 9. County Level and Geographic Location

VITA[2]

Thomas Earl Randle

Candidate for the Degree of

Doctor of Education

Thesis: PERCEPTIONS OF OKLAHOMA RESIDENTS TOWARD THE INSTRUCTIONAL FUNCTION OF THE OKLAHOMA STATE UNIVERSITY DIVISION OF AGRICULTURE

Major Field: Agricultural Education

Biographical:

Personal Data: Born in Brenham, Texas, January 25, 1953, the son of Felix Randle and Mary Graves.

Education: Graduated from Brenham High School, Brenham, Texas, May, 1971; received the Bachelor of Science degree from Texas A&M University, College Station, Texas, May, 1975, with a major in Agricultural Education; received the Master of Education degree from Texas A&M University, College Station, Texas, August, 1979, with a major in Agricultural Education; completed requirements for the Doctor of Education degree at Oklahoma State University in May, 1981.

Professional Experience: Vocational Agriculture Instructor, Sweeny, Texas, July, 1975, to July, 1979; Graduate Research Assistant, State Department of Vocational and Technical Education, August, 1979, to August, 1980; Graduate Teaching Assistant, Oklahoma State University, September, 1980 to present.

Professional Organizations: American Vocational Association, Texas Vocational Agriculture Teachers Association, National Vocational Agriculture Teachers Association, Alpha Tau Alpha, Phi Delta Kappa, Gamma Sigma Delta.