

A NATIONAL ASSESSMENT OF THE
SALARIES AND WORKING CONDITIONS OF
AGRICULTURAL EDUCATION TEACHERS IN THE
UNITED STATES
1990-1991

by

James D. Howe

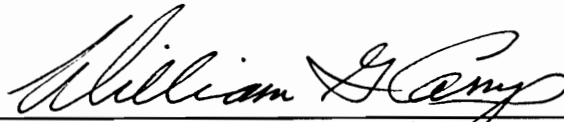
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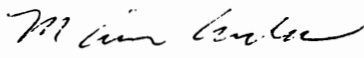
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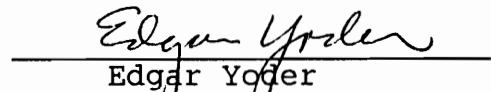
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(ABSTRACT)

The purpose of the study was to determine the salaries and working conditions of agricultural education teachers in the United States. To accomplish this purpose the following objectives were identified:

1. To determine the demographic characteristics of agricultural education teachers.
2. To determine the salaries, salary supplements, and monetary fringe benefits of agricultural education teachers.
3. To determine the nonmonetary benefits of agricultural education teachers.
4. To determine the major instructional and noninstructional responsibilities of agricultural education teachers.
5. To describe the work settings and working conditions in which agricultural education teachers are employed.
6. To determine the work loads of agricultural education teachers.

Most agricultural education teachers reported receiving health insurance benefits. However, only a small percentage (14.7%) of respondents reported receiving fully paid health insurance for themselves and their families. In addition, fewer than one-half (41.4%) of the agricultural education teachers reported receiving fully paid major medical insurance, eye care (13.1%), dental care (20.5%), and life insurance (35.3%).

Production agriculture and agricultural mechanics remain the predominant subjects taught by agricultural education teachers. However, a majority of agricultural education teachers also reported teaching agriscience. Although only a small percentage (18.8%) of agricultural education teachers advised Young Farmer chapters, most (95.8%) advised FFA chapters.

Nearly all (98.4%) agricultural education teachers classified their employment status as full-time. Typically, agricultural education teachers were employed a mean 11.3 months per year. Most (69.5%) agricultural education teachers were employed in comprehensive high schools with a mean student population of 662.4 students. Agricultural education teachers reported a mean of 6.7 periods in a typical school day and teaching load of 5.2 instructional periods per day. Nearly three-fourths of the respondents reported having one period per day allotted for planning, student visitations, or student conferences.

The population for this study included all secondary agricultural education teachers employed in the United States during the 1990-1991 school year. A probability sample was selected using systematic sampling with a random start. The sample was taken from the 1990 Agricultural Teachers Directory (Henry, 1990). A sample size of 332 was selected using tables for determining sample size (Oliver, Hinkle, & Hinkle, 1983).

Based upon the review of literature, professional reviews, and field testing, a 6-page mail survey was developed to collect information relative to the objectives of the study. Three follow-up procedures resulted in a final response rate of 79.2%. A random 10% sampling of nonrespondents was conducted through telephone interviews.

The demographic findings revealed that the greatest percentage of agricultural education teachers are white, male, middle-aged teachers. Practically all agricultural education teachers hold either bachelors or masters degrees with certification to teach agricultural education.

The study revealed a mean teaching salary of \$32,002.00. Over one-half of the respondents reported salaries to be greater than \$31,000.00. Approximately one-third of the agricultural education teachers received paid summer vacation. The mean number of paid summer vacation days was 10.9 days.

DEDICATION

This dissertation is dedicated with sincere appreciation to the following special people who have indeed made a difference in my life.

First and foremost this dissertation is dedicated to my parents, James and Leona Howe. Their love, understanding, and encouragement have brought me the success and happiness I now enjoy.

To my brothers, Daniel and Patrick, who added diversity and a special friendship to my life.

To my grandparents, Regina, James, and Minnie, all of whom brought special meaning to the word grandparent. They will always remain in my thoughts and prayers.

To a very special high school biology teacher and friend, Frank Alansky, who encouraged me to begin my college endeavors nearly 21 years ago.

Most of all, this dissertation is dedicated with sincere love and appreciation to the most important people in my life today--my wife, Gloria, and our son, James Joseph. They have added the most important dimensions to my life--family and love.

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I am most grateful for the many hours of counsel, reading, and editing which my advisor, Dr. William G. Camp, has devoted to the development of this dissertation. Dr. Camp's friendship and guidance during my stay at Virginia Tech will always be remembered. In addition, I especially recognize and thank Dr. Edgar Yoder for his encouragement to pursue a doctorate at Virginia Tech and his assistance in completing this dissertation.

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Finally, sincere appreciation is given to my wife, Gloria, for her editorial assistance and many months of understanding and support during the completion of this dissertation and doctoral program.

TABLE OF CONTENTS

	Page
ABSTRACT	ii
DEDICATION	v
ACKNOWLEDGEMENTS	vi
LIST OF TABLES	xi
LIST OF FIGURES	xvi
CHAPTER 1. RATIONALE	1
Context of the Problem.....	1
Purpose and Objectives of the Study.....	7
Limitations of the Study.....	8
Definitions.....	8
CHAPTER 2. REVIEW OF THE LITERATURE.....	11
Selecting Teaching as a Career.....	11
Factors Influencing Entry and Retention.....	13
Salaries and Working Conditions.....	18
Supervised Experience Programs.....	21
Supply and Demand of Teachers.....	25
Teacher Morale.....	27
Current Trends in Agricultural Education.....	28
Summary.....	32
CHAPTER 3. PROCEDURES OF THE STUDY.....	34
Purpose and Objectives of the Study.....	34
Research Methodology.....	35
The Population and Sample.....	36

TABLE OF CONTENTS (continued)

	Page
Instrumentation.....	37
Data Collection.....	39
Data Analysis.....	41
CHAPTER 4. PRESENTATION AND ANALYSIS OF DATA.....	48
Demographic Characteristics.....	49
Salary, Salary Supplements, and Monetary Benefits.....	58
Nonmonetary Benefits.....	72
Instructional and Noninstructional Responsibilities.....	83
Work Settings and Working Conditions....	92
Work Load.....	109
CHAPTER 5. SUMMARY, DISCUSSION, AND RECOMMENDATIONS	116
Summary.....	116
Procedure.....	117
Demographic Characteristics.....	118
Salaries, Salary Supplements, and Monetary Fringe Benefits	119
Nonmonetary Fringe Benefits.....	120
Instructional and Noninstructional Responsibilities.....	122
Work Settings and Working Conditions....	123
Work Load.....	125
Discussion.....	126
Recommendations.....	128
Recommendations for Further Study.....	130
BIBLIOGRAPHY.....	131

TABLE OF CONTENTS (Continued)

	Page
APPENDIX A. LETTER TO FIELD TEST PARTICIPANTS.	136
APPENDIX B. FINAL QUESTIONNAIRE.....	138
APPENDIX C. LETTER TO SURVEY PARTICIPANTS.....	147
APPENDIX D. FIRST FOLLOW-UP LETTER TO SURVEY PARTICIPANTS.....	149
APPENDIX E. SECOND FOLLOW-UP LETTER TO SURVEY PARTICIPANTS.....	151
VITA.....	152

LIST OF TABLES

Table		Page
1	Number and Percentage of Questionnaires Returned by Agricultural Education Teachers....	43
2	Number and Percentage of Questionnaires Returned by Agricultural Education Teachers by NVATA Regions.....	44
3	Respondent and Nonrespondent Answers for Selected Questionnaire Items by Frequency and Percentages.....	46
4	Respondent and Nonrespondent Answers for Selected Questionnaire Items by Means.....	48
5	Gender of Agricultural Education Teachers by Frequency and Percent.....	50
6	Age Ranges of Agricultural Education Teachers by Frequency and Percent.....	51
7	Race of Agricultural Education Teachers by Frequency and Percent.....	52
8	Highest Level of Formal Education Attained by Agricultural Education Teachers by Frequency and Percent.....	54
9	Teaching Experience of Agricultural Education Teachers by Frequency and Percent.....	55
10	Range of Years Agricultural Education Teachers Have Taught at the Present School by Frequency and Percent.....	56
11	Type of Teaching Certification Held by Agricultural Education Teachers by Frequency and Percent.....	57
12	Masters Degree as a Requirement for Permanent Teaching Certification of Agricultural Education Teachers by Frequency and Percent....	59
13	Agricultural Education Teachers Certified to Teach Subjects Other Than Agricultural Education by Frequency and Percent.....	60
14	Annual Gross Salary of Agricultural Education Teachers by Frequency and Percent.....	61

LIST OF TABLES (Continued)

Table		Page
15	Ratings Given to Salary Increases Received by Agricultural Education Teachers Since 1987 by Frequency and Percent.	62
16	Annual Gross Supplemental Salary of Agricultural Education Teachers for Advising FFA by Frequency and Percent.	64
17	Annual Gross Supplemental Salary of Agricultural Education Teachers for Adult Work by Frequency and Percent.....	65
18	Ranges in Days of Paid Vacation Received by Agricultural Education Teachers by Frequency and Percent.....	66
19	Ranges in Days of Allowable Accumulated Paid Vacation Received by Agricultural Education Teachers by Frequency and Percent.....	67
20	Reimbursement for Graduate Tuition Available to Agricultural Education Teachers by Frequency and Percent.....	69
21	Travel Reimbursement Received by Agricultural Education Teachers by Frequency and Percent....	70
22	Annual Travel Budget Approved for Agricultural Education Teachers by Frequency and Percent....	71
23	Health Insurance Benefits of Agricultural Education Teachers by Frequency and Percent....	73
24	Major Medical Insurance Benefits of Agricultural Education Teachers by Frequency and Percent.....	74
25	Agricultural Education Teachers Receiving Eye Care as a Health Benefit by Frequency and Percent.....	76
26	Agricultural Education Teachers Receiving Dental Care as a Health Benefit by Frequency and Percent.....	77
27	Agricultural Education Teachers Receiving Fully Paid Life Insurance by Frequency and Percent...	78
28	Annual Sick Leave Provisions for Agricultural Education Teachers by Frequency and Percent....	80

LIST OF TABLES (Continued)

Table		Page
29	Annual Sick Leave Which Agricultural Education Teachers May Accumulate From Year to Year by Frequency and Percent.....	81
30	Agricultural Education Teachers Receiving a School System Retirement Plan by Frequency and Percent.....	82
31	Agricultural Education Courses Being Taught by Agricultural Education Teachers by Frequency and Percent.....	84
32	Agricultural Education Teachers Advising FFA by Frequency and Percent.....	85
33	Agricultural Education Teachers Receiving Assistance With FFA by Frequency and Percent...	86
34	Adult Teaching Responsibilities of Agricultural Education Teachers by Frequency and Percent....	88
35	Advising Young Farmer Chapters as a Job Requirement of Agricultural Education Teachers by Frequency and Percent.....	89
36	Agricultural Education Teachers Receiving Assistance With the Young Farmer Chapter by Frequency and Percent.....	90
37	Number of Noninstructional Daily Duties Assigned to Agricultural Education Teachers by Frequency and Percent.....	91
38	Classification of Primary Assignment of Agricultural Education Teachers of Frequency and Percent.....	93
39	Ranges of Agricultural Education Teachers Contract Length in Days by Frequency and Percent.....	94
40	Annual Employment Contracts of Agricultural Education Teachers Reported in Months by Frequency and Percent.....	95
41	Annual Employment Contracts of Agricultural Education Teachers by Frequency and Percent (Composite, Days and Months).....	97

LIST OF TABLES (Continued)

Table		Page
42	Increases and Decreases in the Length of Agricultural Education Teacher's Contracts Since 1987 by Frequency and Percent.....	98
43	Number (Part-Time and Full-Time) of Agricultural Education Teachers Employed in School Systems by Frequency and Percent.....	99
44	Number of Agricultural Education Teachers Employed Part-Time Within a School System by Frequency and Percent.....	100
45	Type of School in Which Agricultural Education Teachers are Employed by Frequency and Percent.....	102
46	Student Population in the Schools Where Agricultural Education Programs Exist by Frequency and Percent.....	103
47	Number of School Buildings in Which Agricultural Education Teachers Teach by Frequency and Percent.....	104
48	Number of Instructional Periods in a School Day in Which Agricultural Education May be Taught by Frequency and Percent.....	106
49	Length of Instructional Periods in Minutes Available for Agricultural Education Classes by Frequency and Percent.....	107
50	Faculty Ratings of Agricultural Education Facilities by Frequency and Percent.....	108
51	Perceived Academic Achievement Level of Agricultural Education Students as Described by Agricultural Education Teachers by Frequency and Percent.....	110
52	Number of Periods Taught Daily by Agricultural Education Teachers by Frequency and Percent....	111
53	Nonagricultural Education Instructional Periods Taught Daily by Agricultural Education Teachers by Frequency and Percent.....	112
54	Number of Instructional Periods Allocated Daily to Agricultural Education Teachers for Planning, SAE Visits, and Student Conferences by Frequency and Percent.....	113

LIST OF TABLES (Continued)

Table		Page
55	Number of Adults Enrolled in Agricultural Education Classes by Frequency and Percent.....	115

LIST OF FIGURES

Figure		Page
1	States by National Vocational Agriculture Teachers Association Regions.....	45

Chapter 1

Rationale

For the last five years the supply of certified agricultural education teachers needed to fill the vacancies created through retirements, teachers leaving the profession, and new teaching positions has not been a major problem when examined strictly from the perspective of availability. A recent study conducted by Camp and Echeverria (1989) indicated, however, that for the past few years there has been an accelerating decline in the number of newly certified agricultural education graduates creating the potential for agricultural education teacher shortages in the early 1990s.

Context of the Problem

Both researchers and employers have sought the answers to such questions as: What is behind the decision to take one job over another? When a decision to take a job is made, why do individuals remain or leave? What do workers want from their jobs? How do salary and benefits influence their feelings about their job? These are questions which researchers in worker motivation have sought to answer. In the past, the most prevalent answer was money. But if we simply look at ourselves for data, we know that there are many things we would do for no pay, and other things we would never do, no matter how much money was offered (Landy & Trumbo, 1976).

In the late 1950s and early 1960s psychologists began to seriously investigate the relationships among job satisfaction, worker motivation, job preference, and worker turnover. Brayfield and Crockett (1955) concluded that there was no appreciable relationship between job satisfaction and worker performance; however, they did find a relationship between job satisfaction and avoidance behaviors such as absenteeism and worker turnover.

Herzberg, Mausner, and Snyderman (1957) conducted a study with 203 accountants and engineers from the Pittsburgh area. These individuals were interviewed and asked to describe times when they felt particularly good or bad about their jobs. The results indicated that the following factors were related to good feelings about a job: achievement and recognition, the nature of the work itself, responsibility, advancement, and salary. Bad feelings about a job seemed to be related to the following factors: company policy and administration, technical supervision, salary, interpersonal relations with supervisors, and working conditions.

Job satisfaction results from the attainment of values which are compatible with one's needs. Among the most important values or conditions conducive to job satisfaction were summarized by Locke (1976):

1. Mentally challenging work with which the individual can cope successfully.

2. Personal interest in the work itself.
3. Work which is not too physically tiring.
4. Rewards for performance.
5. Working conditions which are compatible with the individual's physical needs and which facilitate the accomplishment of their work goals.
6. High self-esteem on the part of the employee.
7. Agents in work which help the employee attain job values such as interesting work, pay, and promotions. (p. 1328)

Locke (1976) discussed two reasons for being concerned with the phenomenon of job satisfaction. First, it could be viewed as an end in itself, since happiness, after all, is a primary goal of life. Second, it can be a contributing factor to job absences, turnover, and termination. Locke reported that while correlations between amount of satisfaction and absenteeism or turnover have been consistent and significant, they have not been especially high (usually less than $r=.40$), the reason being that most employees do not act solely on the basis of their feelings. Other factors that would typically be considered include: personal obligations to one's employer, financial need, and the availability of other jobs.

Teacher turnover has been a significant problem in American education. According to Stinnett (1970) there was

an estimated 10% annual turnover rate, and nearly 50% of U.S. teachers left the profession within 10 years of their entrance, most within the first two or three years of teaching.

Agricultural education has not been immune to the problem of teacher shortages, job dissatisfaction, and teacher turnover. Responding to an on-going shortage of agricultural education teachers, the Agricultural Education Division of the American Vocational Association authorized in 1965, what was to become an annual National Study of the Supply and Demand of Vocational Agriculture Teachers in the United States. For the first few years, the study was conducted by Dr. Ralph Woodin (1963-1973).

In 1974 Dr. David Craig, University of Tennessee, assumed the responsibility for conducting the annual studies to determine the national supply and demand of agricultural education teachers. Craig (1979) reported that a total of 1,791 persons were newly certified to teach agricultural education in 1978 as compared to 1,038 in 1965. Even though the number of teachers certified to teach agricultural education in 1978 was the largest in the history of the study, the percentage of newly certified individuals placed in agricultural education teaching positions had gradually dropped from 64.6% in 1965 to 60.2% in 1975 and then to 56.7% in 1978. In contrast, Sharp (1970) reported on data collected over a five-year interval that 87.1% of health

occupations graduates were still employed in health occupations, and 77.3% of engineering graduates were still employed as engineers five years after graduation.

From 1985 to 1990 the annual publication, National Study of the Supply and Demand for Teachers of Vocational Agriculture, was compiled by Dr. William G. Camp and Dr. J. Dale Oliver, Virginia Polytechnic Institute and State University. The 1989 study (Camp & Echeverria, 1989) found that in 1988 there were 838 newly certified potential agriculture teachers compared to 952 in 1987. The percentage of newly certified agricultural education teachers entering the profession in 1988 was 40.9%, one of the lowest placement rates ever recorded. The 1989 national study of the supply and demand for teachers of agricultural education conducted by Camp and Oliver (1990) indicated that there were only 588 newly certified agricultural education teachers. The placement rate for 1989 was found to be 40.1%, a record low. Moreover, the number of teachers leaving their positions at the end of the year increased substantially in 1989 to 1,026, almost 9.5% of the total.

Five years ago there appeared to be a small surplus of newly graduated agricultural education teachers; then the 1987 data revealed that the surplus seemed to be ending (Camp & Echeverria 1988). In 1989 the indication was that the slight surplus had been depleted, that a small but

apparently growing shortage of agriculture teachers had returned, and that a more serious shortage of agricultural education teachers was on the horizon. Oliver (1991) found less evidence of a growing shortage of agricultural education teachers.

In a much more comprehensive study for the National Education Association, Graybeal (1981) reported a total of 1,200 newly qualified agriculture teachers available nationally at the end of the 1979-1980 school year. Of those, he estimated 850 (71%) were available for teaching jobs. He further estimated a demand for only 525 agricultural education teachers in the fall of 1980, thus indicating a nationwide teacher surplus of 325 teachers. For the same year, Craig (1983) reported a total of 1,584 newly certified agriculture teachers; 824 (52%) actually entering the profession; 117 vacancies remaining as of September 1, 1981, and 454 teachers holding emergency certification.

The Graybeal (1981) data showed a surplus of agriculture teachers and the Craig (1983) data showed a shortage. With such discrepancies, there was even some debate over the reality of the agriculture teacher shortage. Parmley, Bowen, and Warmbrod (1979) examined data from previous national supply and demand studies by Craig, attempting to make sense of the apparent discrepancies between the Graybeal and Craig data and resulting confusing

situation. They hypothesized that the shortage reported by the ongoing studies resulted not from a shortfall in the number of graduates, but from the lowering percentages of graduates choosing to enter the teaching profession. By that reasoning, they hypothesized that the supply of certified agriculture teachers might well be a function of the salaries and working conditions of agricultural education teachers.

Purpose and Objectives of the Study

Since many certified agricultural education graduates have selected careers other than teaching, it might be assumed that alternative opportunities offered benefits which are not available in the teaching profession. Prior to this study, no relatively current data were available on a nation wide basis for the specific salaries and working conditions of agricultural education teachers. It was the purpose of this study to determine the salaries and working conditions of agricultural education teachers in the United States.

In order to accomplish the overall purpose of this study, the following specific objectives were identified:

1. To determine the demographic characteristics of agricultural education teachers.
2. To determine the salaries, salary supplements, and monetary fringe benefits of agricultural education teachers.

3. To determine the nonmonetary benefits of agricultural education teachers.
4. To determine the major instructional and noninstructional responsibilities of agricultural education teachers.
5. To describe the work settings and working conditions in which agricultural education teachers are employed.
6. To determine the work loads of agricultural education teachers.

Limitations of the Study

The scope of this study was limited to agricultural education teachers employed in the United States during the 1990-1991 school year and listed in the 1990 Agriculture Teachers Directory (Henry, 1990). The salaries and working conditions were self-reported.

Definitions

Agriculture Course or Option. A series of studies in a specific area of agriculture or agriculturally related field; examples may include agricultural production, horticulture, agricultural economics, etc.

Agricultural Education Teacher. An individual certified by a state department of education to teach and actually employed to teach any one of several courses or options in agricultural education.

Area/Regional Vocational High School. Refers to any of the following:

(a) A specialized center or school used exclusively or principally to provide vocational education to persons who are available to study in preparation for entering the labor market or to upgrade their vocational competencies.

(b) A high school providing vocational education in no less than 5 different occupational fields to persons who are available to study in preparation for entering the labor market.

(c) A technical or vocational school used exclusively or principally for providing vocational education to persons available to study in preparation for entering the labor market or to upgrade their vocational competencies (Knebel & Richardson, 1982, p. 6).

Comprehensive High School. A secondary school with a curriculum designed to offer diversified programs of instruction to meet the needs of students with varied interests and abilities. Programs provide for both academic and vocational education (Knebel & Richardson, 1982, p. 8).

Monetary Benefits. Those gains or advantages which have a fixed cash value; examples include salaries, paid vacation, and health insurance.

Nonmonetary Benefits. Those gains or advantages which have no fixed cash value; examples include in-school planning and preparation time, and secretarial assistance.

Salary. Fixed compensation paid on a regular basis for teaching services. Does not include supplemental compensation for intracurricular or extracurricular services.

Secondary Education. Those grades following elementary school and ending at grade 12.

Chapter 2

Review of the Literature

A comprehensive review of the literature reveals that minimal research has been conducted to determine the salaries and working conditions of agricultural education teachers. However, numerous studies were conducted in which salaries and working conditions were significant factors. Studies were found involving: job satisfaction, worker morale, entry into the teaching profession, retention of teachers, and program quality--all associated with salaries and working conditions. The primary sources of literature were journal articles, unpublished research studies, and dissertations.

Selecting Teaching as a Career

In recent years teachers and the teaching profession have received considerable attention and media exposure. Reports of current and future teacher shortages have influenced many researchers to examine the reasons for selecting teaching as a career and, similarly, the reasons for leaving the profession.

Goodlad (1984) determined that a majority (57%) of those who entered the teaching profession did so because of the desire to teach in general or to teach a specific subject in particular (22%). Moreover, those who entered teaching because of the professional values in it and a desire to teach a specific subject indicated their

expectations had been fulfilled and they would likely select teaching again. In contrast, those who chose teaching because they were influenced by others or for economic reasons were the least likely to report fulfillment of career expectations.

Teachers left teaching, it appears, for the same reasons other people move from one line of work to another. Personal frustration and dissatisfaction in the teaching situation were the principal reasons most teachers identified for leaving the profession (Goodlad, 1984). Goodlad noted that teaching salary, though not a major reason for entering the teaching profession, was ranked as the second most important reason for leaving teaching. He argued that "talk of securing and maintaining a stable corps of understanding teachers is empty rhetoric unless serious efforts are made to study and remedy the conditions likely to drive out those already recruited" (p.173). The relatively low monetary return for teaching made it even more urgent to enhance the appeal of teaching as satisfying human work by improving the salaries and working conditions of all teachers. Interestingly, Goodlad proposed additional weeks of summer employment focused on school improvement with appropriate salary adjustments as incentives to enhance teachers salaries.

Teachers in agricultural education traditionally have been employed on extended contracts throughout the summer

months. Many have been employed on a 12-month basis to supervise student supervised agricultural experience programs (SAEs), conduct FFA summer activities, attend professional inservices, and up-date curriculum.

A national study of agricultural education teachers during the 1987-88 school year revealed that most of the teachers (88.9%) reported extended contracts beyond the normal school year and that the contracts averaged 40.32 days per year (Burton, 1987). Zurbrick (1989) believed that extended contracts for agricultural education teachers were quickly becoming a benefit of the past. At a time when there appears to be a growing shortage of agricultural education teachers, there might also be a decline in extended contracts for new teachers. The decline in the number of extended contracts might also have the effect of lowering the beginning salaries for agricultural education teachers.

Factors Influencing Entry and Retention

Since the early 1970s numerous studies have been conducted to identify the major reasons why agricultural education teachers entered and then left the profession. In Ohio alone, 263 teachers left the profession from 1970 to 1975 for reasons other than retirement or death (Knight, 1978). This trend has generated much concern within the agricultural education community.

Fenton (1970) conducted a study in Oklahoma which indicated that the primary reasons Oklahoma agriculture teachers left the profession were because of salaries and working conditions. In a state wide study of agricultural education teachers who had left the profession in Virginia, Croser (1975) found that of 15 possible reasons which were given for leaving the profession, the top 5 reasons were related to salaries and working conditions. Croser recommended changes in the salaries and working conditions of agriculture teachers in order to retain experienced teachers and attract new teachers into the profession.

Knight and Bender (1978) examined the reasons why Ohio agricultural education teachers left the teaching profession. Using a 5-point scale ranging from (1) no influence to (5) very much influence, they examined 45 factors on a research questionnaire for former agricultural education teachers. Those who responded to the 45 factors reported that certain factors were more influential than others in their decision to leave teaching. The five factors which were ranked highest by mean score were:

1. Long range occupational goal was something different than teaching agricultural education.
2. Had students in class who should not have been in agricultural education.
3. Inadequate advancement opportunities.
4. Long hours.

5. Inadequate salary (p. 8)

These factors were also among the most frequently cited as factors leading to the decision of former teachers to leave the profession. When considering an intensity score, based upon whether the factor was selected as first, second, or third most influential in the decision of former teachers to leave the profession, these five factors again ranked highest (Knight & Bender, 1978).

In a study to determine why agricultural education teachers in Indiana left the profession, Moore and Camp (1979) studied three different groups of people: former agriculture teachers, high school principals who had one or more agricultural education teachers leave, and the agricultural education teachers who replaced the departing teachers. Using a 46-item questionnaire, they surveyed the three groups to determine whether their perceptions differed regarding the reasons why agricultural education teachers left the profession. Although principals and teachers who replaced the former agricultural education teachers gave higher rankings to such items as "unable to get students to learn as desired" and, "disliked disciplining students" than did the agricultural education teachers who left the profession, all three groups ranked "long hours" and "inadequate salary" in the top 4 of the 15 reasons listed. Camp's interpretation of the findings from a school administrator's point of view concluded that:

Those vocational agriculture teachers who left the profession listed some very interesting reasons for their departure. The most pressing reason, "long hours," combined with the fourth reason, "inadequate salary," was a particularly telling combination.

This may very well have been the limiting factor to the number of well qualified capable young teachers who were attracted to teaching. (p. 15)

Moore and Camp recommended that "perhaps it is time we carefully analyzed the work load of the vo-ag teachers. This is something the profession needs to look at" (p. 17).

Shadle (1980) noted that the Department of Agricultural Education at The Pennsylvania State University prepares students to become teachers of agricultural education, and in any one year graduates an adequate number of students to meet the demand of teaching vacancies. However, approximately 10 high schools in Pennsylvania have had problems filling agricultural education teaching positions each year. Shadle's study sought to answer questions such as, why don't graduates in agricultural education take teaching jobs? For those who enter, then leave teaching, why don't they remain in the teaching profession?

Shadle's research identified the three major reasons why teachers left the profession and potential teachers

never entered the profession upon graduation. The second and third most frequently cited reasons given by respondents were inadequate salary and inadequate administrative support and backing on decisions.

In an effort to determine the reasons why some agricultural education degree recipients chose not to teach agricultural education in Oregon and why others entered and left the profession, Cole (1984) used a census of all agricultural education majors graduating from Oregon State University during a 12-year period from 1971 to 1982. There were 151 graduates with a response rate of 66%. Of those responding, 40% were still teaching, 35% had started to teach and quit, and 25% were agricultural education majors who never took teaching positions.

The median salary for those still teaching agricultural education was \$20,624; for those who taught and left, \$20,556; and for those who never taught, \$23,332. The salary range for those still teaching agricultural education was \$15,000-\$36,000; for those who taught and left, \$0-\$125,000; and for those who never taught \$0-\$125,000.

The findings presented in the study included the five most important reasons why agricultural education graduates never taught:

1. Hours worked by the agricultural education teacher.

2. Time available for hobbies and interests.
3. Opportunity to spend time with family.
4. Evening responsibilities of the agricultural education teacher.
5. Salaries of the agricultural education teacher.

For those who had entered but subsequently left the profession, the reasons included:

1. Opportunity to spend time with family.
2. Salary.
3. Evening responsibilities.
4. Hours worked.
5. Certification requirements of an agricultural education teacher.

In an open-ended question at the end of the questionnaire, 40% of the respondents who left teaching combined inadequate salary, long hours worked, and wanting to get into production agriculture as reasons for leaving teaching. Thirty-eight percent of the respondents who never taught listed job opportunities in production agriculture, job opportunities in agribusiness, and low salaries for teachers as the major reasons for not entering the teaching profession (Cole, 1984).

Salaries and Working Conditions

Over the years several researchers have studied the salaries and working conditions of agricultural education teachers on both the state and national levels. Gutting

(1938) was among the first to examine the relationship between tenure, professional training, and the salaries of agricultural education teachers. Gutting's study sought to answer the following questions for agricultural education teachers in Missouri:

1. Did teachers with longer tenure receive proportionally higher salaries?
2. Were salaries received in proportion to the degree of professionalization of the teachers?
3. What was the range in salaries of all agricultural education teachers? (p. 3)

Gutting (1938) found that all instructors of agricultural education in Missouri had at least bachelor's degrees and 20% had master's degrees. In general, salaries were found to be in proportion to the level of education of the instructors. The average tenure for all teachers was found to be 5.7 years and a direct relationship was found to exist between tenure and salary. As a rule, it was found that the longer the tenure, the higher the salary. There was, at that time, a wide range in the salaries of agricultural education teachers. Salaries were, in general, found to be in direct proportion to the amount of total experience, up to the 11 to 15 year range.

In a similar study in Virginia, Salem (1942) sought to determine the financial and professional status of agricultural education graduates of the Virginia

Polytechnic Institute. Her findings indicated that 86% of those who qualified to teach agricultural education had at one time or another engaged in the profession. During the years 1928-1938, 173, or approximately 73% of those qualified to teach agricultural education had remained in their initial teaching positions. It would seem that during this time period long service and constancy in position were outstanding characteristics of the profession. The researcher concluded that the changing of teaching positions was in most cases accompanied by a slight increase in salary. However, not enough cases of teachers changing positions were included in the study to draw definite conclusions concerning a causal relationship that might exist between the number of changes and a decrease or increase in salary.

In a response to a 10-year shortage of agricultural education teachers, King and Key (1975) conducted a survey of the salaries and working conditions of agricultural education teachers in the United States. They noted that 106 agricultural education departments had been forced to close in 1974 due to a lack of qualified instructors. They reasoned that states with shortages of qualified teachers might be able to attract teachers from other states with over-supplies of teachers if they had access to the salaries and working conditions information in other states. They also contended that experienced teachers who

left the profession for reasons such as salaries or working conditions might be influenced to move to other states where those conditions better suited them. Moreover, they might have remained in the field of teaching agricultural education if they had access to this kind of information. The questionnaire developed by King and Key requested information from state agricultural education supervisors regarding salaries, number of months on the job, teaching load, expenses, certificate renewal, and changes for the coming year.

King and Key (1975) reported that in the 1973-74 school year, beginning teachers with bachelor's degrees could expect to earn \$645 to \$940 per month. Those with master's degrees could expect to earn from \$685 to \$1,098 per month. One state reported the minimum salary below \$650 and one state reported it above \$900. Sixteen states reported all agricultural education teachers on 12-month contracts. Another 14 states reported 75% to 95% of their teachers on 12-month contracts bringing the total states with a majority of teachers employed on a 12-month basis up to 58%.

Supervised Experience Programs

The Smith-Hughes Act mandated that schools were to provide for directed or supervised practice in agriculture, either on a farm provided for by the school or other farm available to the student for at least six months per year.

This legislation served as the momentum for after-school farm production enterprise projects, improvement activities, and supplemental practices. Students were often awarded additional high school credit if they properly carried out the enterprises. Typically, all students had such projects. Such farming programs and related agribusiness activities usually continued beyond the normal school year. Because of this, historically agricultural education teachers have been employed to provide educational experiences during the summer months (Arrington & McCracken, 1983).

Throughout the years, emphasis on production agriculture has shifted. The Vocational Education Act of 1963 expanded the mission of agricultural education to include agribusiness areas. The concept of supervised occupational experience (SOE) emerged. Production type enterprises were no longer required. Students could be placed in agribusiness and other locations to develop specific agricultural occupational competencies. Emphasis on production agriculture had declined as area vocational centers emerged and multiple-period classes were used. In the early 1980s efforts of the National FFA Center staff were refocused on supervised occupational experience (Lee, 1988).

Multanen (1988) discussed the belief that agricultural education should be primarily school-based and limited to a

series of elective courses. He warned that "teachers, administrators, and board members should take care not to destroy the core component of a vital program which has enabled students to think critically, solve real-life problems, develop self-esteem, and in numerous cases become leaders and entrepreneurs" (p. 10). Multanen saw the supervised occupational experience program as a core component which would strengthen the future of agricultural education and stated the need for greater, not less, emphasis in entrepreneurship.

Zurbrick (1989) citing the need to revitalize summer programs in agricultural education stated:

The number of agricultural education teachers at the secondary level with extended (summer) contracts is declining at an alarming rate in many states. Moreover, those who possess strong vocational philosophies and believe in the total program concept are gravely concerned over this decline in the vitality and quality of agricultural education programs. (p. 3)

In distinguishing between supervised occupational experience and supervised agricultural experience, Zurbrick (1989) defined supervised agricultural experience as appropriate for students who desire an understanding and appreciation about agriculture. He contended that supervised occupational experience in agriculture should

result in the development of competencies for employment or self-employment in broad areas of agriculture. Zurbrick concluded that a vitalized summer program in agricultural education must be based on supervised occupational experience.

In a study involving 56 teachers in central Florida, Arrington & McCracken (1983) investigated the relationship between the length of agricultural education teachers' contracts and their supervised occupational experience programs. The primary purpose of this study was to ascertain the extent to which agricultural education teacher employment on a 12-month basis is related to the scope of the supervised occupational experience programs conducted by the students. Their study reported that of the 46 (82%) teachers returning questionnaires, 21 (45.7%) were employed on a 12-month basis, 4 (8.7%) were employed on 11-month contracts, and 21 (45.7%) were employed on 10-month contracts.

For the population studied, Arrington and McCracken concluded that:

1. Students in programs with 12-month teachers developed supervised occupational experience programs that were much larger in scope.
2. Twelve-month contract teachers provided more personalized instruction as indicated by a higher

degree of participation at fairs and more supervised home visits.

3. Students in programs with 12-month teachers in agricultural education were more active in the supervised occupational experience programs and therefore received more opportunity to develop skills in occupational settings. (p. 39)

Supply and Demand of Teachers

The problem of an under-supply of qualified agricultural education teachers was not necessarily universal to all states in the United States. In 1989 for instance, the demand for beginning agriculture teachers in Virginia was met. Some states had excesses of qualified agricultural education teachers. However, newly qualified potential teachers have tended not to leave their home states to accept teaching positions in states where teacher shortages exist. In 1975 some 106 agricultural education departments were forced to close because of teacher shortages (King & Key, 1975). Recent data indicate that the number of teachers needed but unavailable nationwide on September 1, went up from 14 in 1987 to 39 in 1988, an increase of more than 164% in one year. The number of departments not opening because of the lack of teachers has dropped markedly since 1975, with only 4 departments not opening in the fall of 1988 for that reason (Camp & Echeverria, 1989).

The number of teachers with temporary or emergency certificates has been steadily increasing since 1986. There were 131 teachers with emergency certificates in 1988 compared to 129 in 1987, and 94 in 1986. The number of teachers leaving their positions at the end of the year had been declining between 1982 and 1987 but in 1988 it increased to 920, up from 874 in 1987 (Camp & Echeverria, 1989).

Annual studies of the supply and demand for agriculture teachers were made between the years 1965-1989 as a guide to the national recruitment effort for agricultural education teachers. During this period some trends in the supply and demand for agricultural education teachers have become apparent. During the 1964-1965 school year, 1,038 individuals were newly certified to teach agricultural education; of these, 64.6% actually entered the profession. In comparison, 1,791 individuals were certified to teach agricultural education in 1977. This represented a 58% increase in the number of certified individuals. However, the percentage of those agricultural education graduates actually entering teaching decreased to 56.7% resulting in a record number of unfilled positions. Since 1977 the number of certified agricultural education graduates has steadily declined to a 25-year low. In 1987 only 838 individuals were newly certified to teach agricultural education; of these graduates, only 40.9 %

took teaching positions (Camp & Echeverria, 1988).

King and Key (1975) proposed possible solutions to the problem of unfilled agricultural education teaching positions and loss of agricultural education departments. They suggested:

1. That studies be made and published each year regarding available positions in agricultural education and teacher retention.
2. That each state compile a list of minimum, maximum, and average salaries and working conditions for agriculture teachers in their state.
3. That each state make available to interested people the salary information for their state.
4. That a comparison be made between the salaries of agriculture teachers and other teachers in the state.
5. That teacher training institutions make available to all prospective teachers a listing of positions, salaries, and working conditions in all states. (p. 93)

Teacher Morale

During recent years the morale of agriculture education teachers has become a concern of the profession. Many agricultural education teachers left the profession within the first five years (Craig, 1983; Knight, 1978)

indicating a dissatisfaction with some aspect of teaching. In an effort to determine the factors which affect teacher morale, Miller (1978) found that the morale of beginning agricultural education teachers in Virginia was higher than that of more experienced agricultural education teachers. Debertin and Priebe (1984) reported that experienced agricultural education teachers scored higher on the Purdue Teacher Opinionaire, an instrument designed to measure teacher morale, than did beginning agricultural education teachers. In each study, either salaries, working conditions, or both, were related to lower teacher morale.

In a study to assess the level of morale of beginning teachers in Illinois, Flowers and Pepple (1988) collected data from 76 1983-84 and 1984-85 beginning teachers using the Purdue Teacher Opinionaire. Beginning agricultural education teachers in Illinois indicated they were moderately satisfied with their jobs. The major factors associated with lower levels of morale were salaries received and teacher work load.

Current Trends in Agricultural Education

Excellence in education has become a matter of national concern. Policy makers in agricultural education began the task of identifying problems in the profession with the formation of the Committee on Agricultural Education in Secondary Schools in 1985. The committee was initiated in part to determine the reasons for declining

enrollments and to assess the quality of agricultural education programs (National Research Council, 1988).

A principal conclusion of the Committee was that major revisions were needed within the profession. The Committee recommended that the relevance and scope of the curriculum, supervised occupational experiences, and the FFA must be broadened. Moreover, agricultural education programs must be upgraded to prepare students more effectively for the study of agriculture in postsecondary schools and colleges; for current and future career opportunities in agricultural sciences, agribusiness, marketing, and management; and for food production and processing (National Research Council, 1988).

Rapid advances in the agricultural sciences and technologies have increased the need for teachers of agricultural education to continually upgrade their professional and technical competence. Program planners and conductors of inservice education programs related to agricultural education must plan and conduct periodic inservice courses and workshops to keep practicing agricultural education teachers current (National Research Council, 1988).

Drake (1988) examined the source variables or constraints that deterred secondary agricultural education teachers from participating in college credit and noncollege credit courses designed to improve the technical

and professional competence of the teacher. Noting that cost was significantly related to educational level, age, teaching experience, and experience in the present school, the typical teacher responded that his or her employer would not provide enough financial assistance or reimbursement.

Over the years many factors have been identified as affecting the quality of educational programs at the secondary level. Those factors include: teacher characteristics (Dunathan, 1980; Murray, 1980), the funding of programs (Johns, Morphet, & Alexander, 1983; Waters, 1986), characteristics of the school (Eberts, Kehoe, & Stone, 1984), and the role of state supervision (Barrick, 1980).

Straquadine (1988) conducted a national study to assess program quality based upon the Standards for Quality Programs in Agriculture/Agrribusiness Education which had been developed through a series of national meetings of state supervisors, teacher educators, and agricultural education teachers. These standards were developed to assess program quality. In his study Straquadine (1988) found that the average agricultural education teacher held a bachelor's degree with a major in agricultural education from a land-grant university. Additionally, the teacher had been teaching for 11 years in a single teacher department with 86 students in a comprehensive high school.

While the average teacher taught agricultural education 90% of the school day, he or she did not work with adults throughout the year. The average salary in 1987 was found to be \$27,000. Moreover, Straquadine found that there was not a significant relationship between degree major, level of education, and program quality; however, low but significant relationships were obtained among such factors as years of teaching experience, percent of the day spent teaching agricultural education classes, annual teaching salary, and funding available for program support.

In a national study to determine agricultural education teachers' opinions of selected program components and external factors in insuring quality agricultural education programs for the future, Kotrlik and Drueckhammer (1987) found that supervised occupational experience programs and agricultural mechanics were perceived as being the two most important components in insuring the future quality of agricultural education programs. Teachers identified summer programs and supervised occupational experience supervision as critically important factors to maintain quality supervised occupational experience programs into the year 2000. Teachers were also asked to rate 29 factors according to how important they felt each factor was to the future quality of their programs in their communities. The five top ranked individual factors were:

1. Teacher pay and benefits.

2. Teacher professionalism.
3. Retention of competent teachers.
4. The quality of beginning teachers.
5. The leadership expressed by individual agricultural education teachers. (p. 30)

Summary

In reviewing the literature several factors currently affecting agricultural education appear to be associated with the salaries and working conditions of agricultural education teachers. These include:

1. The willingness of agricultural education graduates to accept teaching positions.
2. The retention of experienced agricultural education teachers.
3. The morale of agricultural education teachers.
4. The willingness of teachers to enroll in credit and noncredit courses to remain professionally and technically current.
5. The quality of the agricultural education program and vital components of the program such as supervised occupational experience.

The primary purpose of agricultural education is to prepare students for careers in an agricultural industry very much in need of qualified employees. To accomplish this task qualified agricultural education teachers and quality agricultural education programs are necessary.

Therefore, the salaries and working conditions of beginning agricultural education teachers and experienced teachers must be competitive with other opportunities in the agricultural industry.

If national data salaries and working conditions of agricultural teachers were available to graduates in agricultural education, more graduates might be willing to consider leaving their home states to accept positions in other states in need of qualified agricultural education teachers. Further, teachers who have left the profession because of salaries and working conditions in one state might be motivated to seek employment in other states where the salary and working conditions would better meet the requirements of the individual. It is important therefore to compile and maintain accurate information on the salaries and working conditions of agricultural education teachers.

Chapter 3

Procedures of the Study

This chapter describes the research methodology used in the study, describes the population and sampling procedures, and explains the development and administration of the survey instrument (questionnaire). It also provides an explanation of the statistical procedures used in analyzing the data.

Purpose and Objectives of the Study

A review of the literature indicated that there is no up-to-date national information regarding the salaries and working conditions of agricultural education teachers. Moreover, the literature suggested that salaries and working conditions are important reasons given by individuals who planned to enter or decided to leave the teaching profession. Camp and Echeverria (1989) indicated that the number of teachers leaving the profession is increasing and that the number of agricultural education teachers needed to fill vacancies is growing faster than the supply of individuals willing to accept such positions.

Since there were no current data available regarding the salaries and working conditions of agricultural education teachers, it was the purpose of this study to obtain such data. To accomplish the overall purpose of the study the following specific objectives were developed:

1. To determine the demographic characteristics of agricultural education teachers.

2. To determine the salaries, salary supplements, and monetary fringe benefits of agricultural education teachers.
3. To determine the nonmonetary benefits of agricultural education teachers.
4. To determine the major instructional and noninstructional responsibilities of agricultural education teachers.
5. To describe the work settings and working conditions in which agricultural education teachers are employed.
6. To determine the work loads of agricultural education teachers.

Research Methodology

Descriptive research methodology was used to collect data relative to the objectives of the study. The purpose of descriptive research in the literal sense is to describe systematically the facts and characteristics of a given population or area of interest factually and accurately (Isaac & Michaels, 1983). Characteristically, descriptive research is the accumulation of a data base that is solely descriptive. It does not necessarily seek nor explain relationships, test hypotheses, make predictions, nor get at meanings and implications; although, research aimed at these more powerful purposes may incorporate descriptive methods (Isaac & Michaels, 1983, p. 46). Authorities are not in agreement as to what constitutes descriptive research and

often broaden the term to include all forms of research other than historical and experimental.

In the broad sense, the term survey research has often been used in reference to descriptive research. Isaac and Michaels (1983) stated that the purpose of surveys includes:

- a) to collect detailed factual information that describes existing phenomena;
- b) to identify problems or justify current conditions and practices;
- c) to make comparisons and evaluations;
- d) to determine what others are doing with similar problems or situations and benefit from their experience in making future plans and decisions. (p. 46)

The Population and Sample

The population for this study consisted of 10,960 secondary agricultural education teachers employed in the United States during the 1990-1991 school year. The population was operationally defined as those individuals identified as agricultural education teachers in the 1990 Agriculture Teachers Directory (Henry, 1990). The 1990 Agriculture Teachers Directory was chosen as the primary source for identifying the population in this study because it was the most complete and comprehensive single source available.

A sample size of 332 was selected based upon the arbitrary criteria of $\alpha = .05$, effect = .10, and a power of the statistical test = .90. Based on those criteria the

sample size was selected from tables for determining sample size (Oliver, Hinkle, & Hinkle, 1983). A probability sample was selected using systematic sampling with a random start within the listing of agricultural education teachers for each state.

Based on the number of teachers in the directory, 1 in 33 would be needed to produce the desired sample size. To identify the sample, a number between 1 and 33 was chosen from a table of random numbers as the starting point to select from an alphabetical listing of states and secondary agricultural education teachers. The randomly selected number was 4. The first teacher selected was the 4th one listed. Then every 33rd teacher thereafter was included in the sample.

Instrumentation

A mail survey was developed to collect information related to the study objectives. As a part of the initial development of the questionnaire, a review of literature was conducted to examine instrumentation used in related studies (Howe, 1980; King & Key, 1975; United States Department of Education, 1987; Vaughn & McMillion, 1978). In addition to items identified through the review of literature, a committee of teacher educators in agricultural education and agricultural education teachers was asked to review each item and suggest additional items which would address the purpose and objectives of the study. Based on the review of literature and the committee suggestions, a draft survey

instrument was developed.

In addition to securing information about the agricultural education teachers' salaries and benefits, the survey was designed to collect information concerning the working conditions under which each agricultural education teacher functioned.

The 6-page questionnaire consisted of 49 objective questions printed on ivory paper in booklet form. The questionnaire was subdivided into three sections--section I, background and working conditions; section II, salaries and benefits; and section III, demographic information.

After the draft survey instrument was developed, faculty members in the Agricultural Education Program Area at the Virginia Polytechnic Institute and State University and the Department of Agricultural and Extension Education at The Pennsylvania State University were asked to review and critique the questionnaire for readability, consistency, and content validity. Several item additions, revisions, and deletions were made based upon the recommendations of the members of the agricultural education faculties.

Once the preliminary questionnaire was developed, a field test was conducted. Thirty Pennsylvania agricultural education teachers not selected for inclusion in the sample were asked to participate in the field test. Each participant was given a copy of the preliminary questionnaire along with a cover letter identifying (a) the specific objectives of the study and (b) instructions to make any

comments on the questionnaire which they thought would improve its effectiveness in carrying out the objectives of the study (Appendix A).

After a period of 13 days all 30 questionnaires were returned. In addition to the changes made upon recommendations by the agricultural education faculties of the Virginia Polytechnic Institute and the Pennsylvania State University, six additional clarifications were made (Appendix B).

Data Collection

Dillman (1978, p.12) noted that "the failure of surveys to produce satisfactory results occurs from either poor design, poor administration, or both." Dillman's Total Design Method identified aspects of the survey process that affect the quality and quantity of responses and organizes the survey efforts so that the design intentions are carried out in complete detail. The procedures identified herein address the concerns expressed by Dillman and, where feasible, the Total Design Method was utilized.

An individualized cover letter was developed explaining the purpose and importance of the study (Appendix C). The cover letter was signed by both the researcher and Dr. Larry Case, Senior Program Specialist in Agricultural Education, United States Department of Education and National FFA Advisor. A number-coded questionnaire, cover letter, and a postage paid self-addressed return envelope were mailed directly to 332 agricultural education teachers randomly

selected from the 1990 Agriculture Teachers Directory. To account for inaccuracies in the Agriculture Teachers Directory, each envelope was addressed to both the specific agricultural education teacher identified in the directory or the current agricultural education teacher. A 14-day deadline for returning questionnaires was established. Individuals not returning the questionnaire within the 2-week deadline were sent letters (Appendix D) to remind them to return the questionnaires. After a waiting period of 10 additional days a second follow-up activity was conducted. The second follow-up activity consisted of mailing a second questionnaire, a cover letter (Appendix E) reiterating the importance of both the study and the individual's response, and a postage paid self-addressed return envelope to nonrespondents.

Table 1 shows the response of agricultural education teachers to the survey. Of the 332 persons initially contacted in the first mailing, 275 returns were received. Four questionnaires were returned by the postal service because of incorrect addresses. An additional eight questionnaires were returned by persons who indicated that the agricultural education program in that school was discontinued. The final response rate of 79.2% was calculated by dividing the total number of usable responses (263) by the total number of agricultural education teachers included in the sample (332).

To determine a nation-wide distribution of responses all agricultural education teachers included in the sample were categorized into their respective NVATA region. The 6 regions of the National Vocational Agriculture Teachers Association as shown in Figure 1 were selected to describe the distribution because of the familiarity of agricultural education teachers with these regions. An examination of Table 2 shows the distribution of usable responses to the survey. It is noted that the differential regional return rates may have introduced biases to this study.

After the final return deadline, the identification numbers of all nonrespondents were used to select a small (13%) sample of nonrespondents. The researcher telephoned each of the nine nonrespondents included in the sample to solicit their responses to 20 selected questionnaire items. A subjective examination of the respondent and nonrespondent data seems to indicate that there may be minor differences on several of the variables. The reader is cautioned to consider such differences. A summary of the responses reported by respondents and nonrespondents is reported in Table 3 and Table 4.

Data Analysis

Returned questionnaires were examined for accuracy and completeness. The data reported on the 263 returned questionnaires were coded and transferred into the computer for analysis. The Statistical Packages for the Social Sciences (SPSS-X, 1983) was used to analyze the data. The

data nature were analyzed using means, modes, ranges, frequencies, and percentages, and are reported in chapter 4.

Table 1.

Number and Percentage of Questionnaires Returned
by Agricultural Education Teachers

	n	%
Questionnaires Mailed	332	100.0
1st mailing returns	179	53.9
2nd mailing returns	96	28.9
Nonusable Returns	12	4.6
Usable Returns	263	79.2
Final Response Rate		79.2 (263/332)

Table 2.

Number and Percentage of Questionnaires Returned by
Agricultural Education Teachers by NVATA Regions

Region	No. Mailed	Valid Returns	% Returned by Region	% Usable Returns
I	38	29	76.3	11.0
II	80	59	73.8	22.4
III	39	36	92.3	13.7
IV	58	45	77.6	17.1
V	70	59	84.3	22.4
VI	47	35	74.5	13.3
Total	332	263	- -	99.9 ^a

^a Percent does not equal 100 due to rounding.

Region I	Region II	Region III
Alaska	Arkansas	Iowa
Arizona	Colorado	Minnesota
California	Kansas	Nebraska
Hawaii	Louisiana	North Dakota
Idaho	New Mexico	South Dakota
Montana	Oklahoma	Wisconsin
Nevada	Texas	Utah
Washington		
Wyoming		
Region IV	Region V	Region VI
Illinois	Alabama	Connecticut
Indiana	Florida	Delaware
Kentucky	Georgia	Maine
Michigan	Mississippi	Maryland
Missouri	North Carolina	Massachusetts
Ohio	South Carolina	New Hampshire
Tennessee		New Jersey
		New York
		Pennsylvania
		Rhode Island
		Vermont
		Virginia
		West Virginia

Figure 1.

States by National Vocational Agriculture Teachers
Association Regions.

Table 3

Respondent and Nonrespondent Answers for Selected
Questionnaire Items by Frequency and Percentages

Survey Item	Question	Respondent		Nonrespondent	
		Percent	<u>n</u>	Percent	<u>n</u>
I.					
1	How do you classify your primary assignment?				
	a. Regular full-time	98.4	(246)	100	(9)
	b. Part-time teacher	1.2	(3)	-	-
	c. Long term substitute	.4	(1)	-	-
2	Which of the following best describes the school in which you teach?				
	a. Middle school or Jr. H.S.	6.5	(17)	-	-
	b. Comprehensive H.S.	69.5	(182)	88.8	(8)
	c. Vocational H.S.	7.6	(20)	-	-
	d. Area vocational H.S.	5.3	(14)	11.2	(1)
	e. Combination of the Above	-	-	-	-
5	Do you teach in more than one school building?				
	a. Yes	22.9	(59)	-	-
	b. No	76.0	(196)	100.0	(9)
6	Do you teach adults?				
	a. No	76.7	(201)	77.7	(7)
	b. Yes, full time	2.3	(6)	-	-
17	Do you serve as an advisor to a Young Farmer chapter?				
	a. No	81.2	(212)	77.7	(7)
	b. Yes	18.8	(49)	22.3	(2)
18	Do you serve as an advisor to an FFA chapter?				
	a. No	4.2	(11)	22.3	(2)
	b. Yes	95.8	(249)	77.7	(7)
	c. Yes, part time	21.0	(56)	22.3	(2)

(table continues)

Survey Item	Question	Respondent Percent	n	Nonrespondent Percent	n
20	Identify your highest level of formal education.				
	a. less than bachelor's	.8	(2)	-	-
	b. bachelor's degree	9.5	(25)	11.1	(1)
	c. bachelor's + credits	47.3	(124)	33.3	(3)
	d. master's degree	14.1	(37)	22.2	(2)
	e. master's + credits	27.5	(72)	33.3	(3)
	f. doctorate	0.8	(2)	-	-
21	My teaching certification is				
	a. permanent no renewal	39.7	(104)	66.6	(6)
	b. permanent renewal required	49.6	(130)	22.2	(2)
	c. temporary	9.2	(24)	11.1	(1)
	d. other	1.1	(3)	-	-
22	Is a Master's degree required to maintain your teaching certification?				
	a. Yes	11.4	(30)	-	-
	b. No	88.6	(233)	100.0	(9)
II.					
2	How would you rate your salary increases since 1987?				
	a. Excellent	7.8	(20)	-	-
	b. Good	24.7	(63)	33.3	(3)
	c. Fair	36.1	(92)	66.7	(6)
	d. Poor	31.4	(80)	-	-
III.					
2	Gender				
	a. Male	92.0	(242)	100.0	(9)
	b. Female	4.9	(13)	-	-
3	Race				
	a. White	90.1	(237)	100.0	(9)
	b. Hispanic	1.9	(5)	-	-
	c. African-American	2.3	(6)	-	-
	d. Native-American	.8	(2)	-	-
	e. Others	1.1	(3)	-	-

Table 4

Respondent and Nonrespondent Answers for Selected
Questionnaire Items by Means

Survey Item	Question	Respondent Mean	Nonrespondent Mean
3	How long have you taught agricultural education at your present school? (years)	10.4	8.0
9	How many full-time agricultural education teachers are employed within your school system? (teachers)	2.1	1.6
12	How many instructional periods are there in your school day? (periods)	6.7	7.1
13	How many minutes are most instructional periods in your school day? (minutes)	51.4	48.0
19	How many years of teaching experience do you have? (years)	13.6	8.6
1	What is your 1990-1991 salary as an agricultural education teacher?	\$32,002.00	\$34,556.00
3	What is the length of your annual contract? (months)	11.1	10.7
1	Age at last birthday (years)	38.3	33.7

Chapter 4

Presentation and Analysis of Data

The tables and narratives presented in this chapter reflect the information which was gathered and analyzed to satisfy the objectives of this study. The purpose of this study was to determine the salaries and working conditions of agricultural education teachers in the United States. To accomplish that purpose, the following specific objectives were identified:

1. To determine the demographic characteristics of agricultural education teachers.
2. To determine the salaries, salary supplements, and monetary fringe benefits of agricultural education teachers.
3. To determine the nonmonetary benefits of agricultural education teachers.
4. To determine the major instructional and noninstructional responsibilities of agricultural education teachers.
5. To describe the work setting and working conditions in which agricultural education teachers are employed.
6. To determine the work load of agricultural education teachers.

Demographic Characteristics

Objective 1 was to determine the demographic characteristics of agricultural education teachers. Tables 5 through 13 provide data to address this objective. Although 263 usable questionnaires were returned, some questions were not answered by respondents and therefore the total number of respondents may vary from question to question.

Gender

Of the 255 agricultural education teachers who responded, the vast majority were male. Approximately one-twentieth of those responding were female (Table 5).

Age

An examination of Table 6 shows that nearly 40% (39.1%) of the agricultural education teachers were between 22 and 35 years of age. Fewer than one-tenth (9.5%) of the agricultural education teachers said they were 51 years of age or older. The mean age for the 253 teachers responding was 38.3 years.

Race

As illustrated in Table 7 the greatest percentage (93.7%) of those responding reported their race as white. The remaining respondents included: Hispanic (2.0%); African-American (2.4%); and Native American (.8%).

Table 5.

Gender of Agricultural Education Teachers by Frequency and Percent

Gender	Frequency	Percent
Male	242	94.9
Female	13	5.1
Total	255	100.0

Table 6.

Age Ranges of Agricultural Education Teachers by
Frequency and Percent

Age Category	Frequency	Percent
21 thru 25	12	4.7
26 thru 30	49	19.4
31 thru 35	38	15.0
36 thru 40	50	19.8
41 thru 45	59	23.3
46 thru 50	21	8.3
51 thru 55	13	5.1
56 thru 60	10	4.0
61 thru 65	1	0.4
Total	253	100.0

Mean = 38.3 years

SD = 8.7 years

Range = 22 thru 61 years

Table 7.

Race of Agricultural Education Teachers by Frequency and Percent

Race	Frequency	Percent
White	237	93.7
Hispanic	5	2.0
African-American	6	2.4
Native American	2	0.8
Others	3	1.2
Total	253	100.1 ^a

^a Percent does not equal 100 due to rounding

Educational Preparation

The majority (56.8%) of the 262 instructors reported holding bachelors degrees as the highest educational degree attained. Slightly more than two-fifths (41.6%) held masters degrees. Only two individuals (0.8%) reported holding doctorates. Similarly, two respondents (0.8%) reported their level of education as less than bachelors degrees. A summary of this information is provided in Table 8.

Teaching Experience

The mean number of years of teaching experience for agricultural education teachers as reported in Table 9 was 13.6 years. The data presented in Table 10 show that over one-half (53.6%) of all agricultural education teachers reported they had taught at their present schools 10 years or less. The range was 1 to 30 years and the mean was 10.4 years.

Teaching Certification

An examination of Table 11 shows that approximately one-half (49.6%) of the agricultural education teachers indicated their teaching certificates were permanent but required periodic renewal. Almost two-fifths (39.7%) said their teaching certification was permanent with no requirement for renewal. Slightly less than one-tenth (9.2%) of the agricultural education teachers responding reported that they held temporary teaching certificates and were

Table 8.

Highest Level of Formal Education Attained by
Agricultural Education Teachers by Frequency and Percent

Highest Education Level	Frequency	Percent
< BS Degree	2	0.8
BS Degree	25	9.5
BS Degree + Credits	124	47.3
MS Degree	37	14.1
MS Degree + Credits	72	27.5
Doctorate	2	0.8
Total	262	100.0

Table 9.

Teaching Experience of Agricultural Education Teachers
by Frequency and Percent

Years	Frequency	Percent
1 thru 5	57	21.6
6 thru 10	49	18.6
11 thru 15	53	20.2
16 thru 20	42	16.0
21 thru 25	40	15.2
26 thru 30	12	4.6
31 thru 35	10	3.8
Total	263	100.0

Mean = 13.6 years

SD = 8.5 years

Range = 1 thru 35 years

Table 10.

Range of Years Agricultural Education Teachers Have Taught at the Present School by Frequency and Percent

Years	Frequency	Percent
1 thru 5	96	36.5
6 thru 10	45	17.1
11 thru 15	50	19.0
16 thru 20	39	14.8
21 thru 25	25	9.5
26 thru 30	8	3.0
Total	263	99.9 ^a

a

Percent does not equal 100 due to rounding

Mean = 10.4 years

SD = 7.7 years

Range = 1 thru 30 years

Table 11.

Type of Teaching Certification Held by Agricultural
Education Teachers by Frequency and Percent

Certification	Frequency	Percent
Permanent no renewal required	104	39.7
Permanent with periodic renewal required	130	49.6
Temporary	24	9.2
Other	3	1.1
Total	261	99.9 ^a

^a Percent does not equal 100 due to rounding

working toward permanent certification.

The greatest percentage (88.6%) of the respondents said that a masters degree was not needed to gain permanent certification. Slightly more than one-tenth (11.4%) said that a masters degree was required to maintain their permanent teaching certificate (Table 12).

Over one-half (53.2%) of the respondents said they were certified to teach other subjects in addition to agricultural education (Table 13). The most commonly reported subjects were: general science, environmental science, biology, and industrial arts/technology education.

Salary, Salary Supplements, and Monetary Benefits

Objective 2 was to determine the salaries and monetary fringe benefits of agricultural education teachers. Tables 14 through 22 address this objective.

Salaries and Ratings of Salary Increases

An examination of Table 14 shows the salary range for agricultural education teachers was \$11,600.00 to \$58,200.00. The mean salary was \$32,002.00. One-half (50.0%) of all agricultural education teachers earned \$31,000.00 or more per year. About one-tenth (10.7%) reported annual salaries of less than \$22,999.00. Of the 254 salaries reported, nearly one-seventh (14.7%) were \$41,000.00 or more.

Table 15 provides information which shows that agricultural education teachers rated their salary increases since 1987 as: excellent (7.8%), good (24.7%), fair (36.1%),

Table 12.

Masters Degree as a Requirement for Permanent Teaching
Certification of Agricultural Education Teachers by
Frequency and Percent

Required	Frequency	Percent
Yes	30	11.4
No	233	88.6
Total	263	100.0

Table 13.

Agricultural Education Teachers Certified to Teach
Subjects Other Than Agricultural Education by Frequency
and Percent

Other Certification	Frequency	Percent
Yes	140	53.2
No	123	46.8
Total	163	100.0

Table 14.

The Annual Gross Salary of Agricultural Education
Teachers by Frequency and Percent

Salary Range	Frequency	Percent
\$11,000 thru \$12,999	2	0.8
\$13,000 thru \$14,999	2	0.8
\$15,000 thru \$16,999	0	0.0
\$17,000 thru \$18,999	4	1.6
\$19,000 thru \$20,999	7	2.8
\$21,000 thru \$22,999	12	4.7
\$23,000 thru \$24,999	23	9.1
\$25,000 thru \$26,999	22	8.7
\$27,000 thru \$28,999	20	7.9
\$29,000 thru \$30,999	29	11.5
\$31,000 thru \$32,999	25	9.9
\$33,000 thru \$34,999	20	7.9
\$35,000 thru \$36,999	18	7.1
\$37,000 thru \$38,999	18	7.1
\$39,000 thru \$40,999	14	5.5
\$41,000 thru \$42,999	12	4.7
\$43,000 thru \$44,999	8	3.2
\$45,000 thru \$46,999	4	1.6
\$47,000 thru \$48,999	6	2.4
\$49,000 thru \$50,999	2	0.8
\$51,000 thru \$52,999	2	0.8
\$53,000 thru \$54,999	0	0.0
\$55,000 thru \$56,999	1	0.4
\$57,000 thru \$58,999	2	0.8
Total	253	100.1 ^a

a

Percent does not equal 100 due to rounding

Mean = \$32,002.00

SD = \$8,321.30

Range = \$11,600 thru \$58,200

Table 15.

Ratings Given to Salary Increases Received by
Agricultural Education Teachers Since 1987 by Frequency
and Percent

Rating	Frequency	Percent
Excellent	20	7.8
Good	63	24.7
Fair	92	36.1
Poor	80	31.4
Total	255	100.0

and poor (31.4%).

Additional Pay for Advising FFA

Nearly two-thirds (66.0%) of agricultural education teachers received no extra pay for advising FFA members. Of those receiving extra pay, over one-half (54.5%) earned less than \$1,000.00. The mean salary for advising the FFA was \$1,261.32. A distribution of supplemental salary for advising FFA is provided in Table 16.

Pay for Adult Work

Table 17 shows that fewer than one-fifth (15.1%) of the respondents reported receiving additional pay for their adult work. Of those reporting additional salary supplements the reported mean salary supplement was \$654.51.

Paid Vacation

More than one-third (37.1%) of the agricultural education teachers said they received paid vacations. Of those reporting, 27.0% indicated that they received 1 to 10 paid vacation days per year. The mean number of paid vacation days was 10.9 days. Table 18 provides the ranges in days of paid vacation received by agricultural education teachers.

The greatest percentage (91.1%) of agricultural education teachers said they were not allowed to accumulate vacation days from year to year. Of those allowed to accumulate vacation days a mean of 1.8 days was reported (Table 19).

Table 16.

Annual Gross Supplemental Salary of Agricultural
Education Teachers for Advising FFA by Frequency and
Percent

Salary Range	Frequency	Percent
No supplement	171	66.0
Below \$500	23	8.9
\$501 thru \$1,000	25	9.7
\$1,001 thru \$1,500	16	6.2
\$1,501 thru \$2,000	8	3.1
\$2,001 thru \$2,500	3	1.2
\$2,501 thru \$3,000	4	1.5
\$3,001 thru \$3,500	7	2.7
Over \$3,500	2	0.7
Total	259	100.0

Mean = \$1,261.32

SD = \$1,215.59

Range \$50 thru \$8,700

Table 17.

Annual Gross Supplemental Salary of Agricultural Education Teachers for Adult Work by Frequency and Percent

Salary Range	Frequency	Percent
No supplement	207	84.8
\$60 thru \$500	17	7.0
\$501 thru \$1,000	14	5.7
\$1,001 thru \$1,500	3	1.2
\$1,501 thru \$2,000	1	0.4
\$2,001 thru \$2,500	1	0.4
Over \$2,501	1	0.4
Total	244	99.9 ^a

^a
Percent does not equal 100 due to rounding

Mean = \$654.51

SD = \$741.70

Range = \$60 thru \$3600

Table 18.

Ranges in Days of Paid Vacation Received by Agricultural Education Teachers by Frequency and Percent

Range of Vacation Days	Frequency	Percent
No paid vacation	156	62.9
1 thru 10	67	27.0
11 thru 20	22	8.9
21 thru 30	3	1.2
Total	248	100.0

Mean = 10.9 days

SD = 4.1 days

Range = 0 thru 30 days

Table 19.

Ranges in Days of Allowable Accumulated Paid Vacation
Received by Agricultural Education Teachers by Frequency
and Percent

Range of Days Accumulated	Frequency	Percent
None	224	91.1
1 thru 10	8	3.3
11 thru 20	3	1.2
21 thru 30	9	3.7
31 thru 40	2	0.8
Total	246	100.1 ^a

^a

Percent does not equal 100 due to rounding

Mean = 1.8 days

SD = 6.8 days

Range = 0 thru 40 days

Reimbursement for Graduate Tuition

The data presented in Table 20 show that nearly three-fourths (73.6%) of all the respondents said they received no tuition reimbursement for graduate course work. Fewer than one-tenth (7.2%) reported they received full graduate tuition reimbursement. Nearly one-fifth (19.2%) indicated they received partial reimbursement for graduate courses.

Mileage Reimbursement

Approximately four-fifths (80.9%) of all agricultural education teachers indicated they received some reimbursement for job-related mileage. Mileage reimbursement ranged from a low of 10 cents per mile to a high of 33 cents per mile. The mean mileage reimbursement rate was 22.3 cents per mile. Ranges for mileage reimbursement are provided in Table 21.

Travel Budget

Table 22 shows that slightly more than one-third (35.2%) of the respondents reported total travel budgets of \$500.00 or less. Over one-fourth (29.0%) said their travel budgets were between \$501.00 and \$1,000.00. Approximately one-fifth (21.2%) indicated their travel budgets were between \$1,001.00 and \$2,000.00. The remaining respondents (14.4%) reported travel budgets ranging from \$2,001.00 to \$12,000.00

Table 20.

Reimbursement for Graduate Tuition Available by
Agricultural Education Teachers by Frequency and Percent

Response	Frequency	Percent
Yes, totally reimbursed	18	7.2
Yes, partially reimbursed	48	19.2
No reimbursement	184	73.6
Total	250	100.0

Table 21.

Travel Reimbursement Received by Agricultural Education Teachers by Frequency and Percent

Rate per Mile Range (\$)	Frequency	Percent
.10 thru .15	4	2.0
.16 thru .20	55	27.5
.21 thru .25	127	63.5
.26 thru .30	13	6.5
.31 thru .35	1	0.5
Total	200	100.0

Mean = \$.223

SD = \$.028

Range \$.10 thru \$.33

Table 22.

Annual Travel Budget Approved for Agricultural Education Teachers by Frequency and Percent

Budget Range	Frequency	Percent
Below \$500	68	35.2
\$501 thru \$1,000	56	29.0
\$1,001 thru \$1,500	29	15.0
\$1,501 thru \$2,000	12	6.2
\$2,001 thru \$2,500	7	3.6
\$2,501 thru \$3,000	7	3.6
\$3,001 thru \$3,500	2	1.0
\$3,501 thru \$4,000	7	3.6
Over \$4,001	5	2.6
Total	193	99.8 ^a

^a Percent does not equal 100 due to rounding

Mean = \$1211.76

SD = \$1572.6

Range = \$0 thru \$12,000

Nonmonetary Benefits

Objective 3 was to determine the nonmonetary benefits of agricultural education teachers. Tables 23 through 30 provide data relevant to this objective.

Paid Health Insurance

The distribution of responses as presented in Table 23 shows that over one-fourth (27.9%) of all agricultural education teachers reported that their health insurance premiums were fully paid for the employees only. Slightly fewer than one-fifth (19.0%) said that the insurance premiums for the employees were partially paid. A smaller percentage of agricultural education teachers (14.7%) said that the health insurance premiums were completely paid for the employees and their families. The largest percentage (30.2%) reported that the health insurance premiums were partially paid by their school systems. Fewer than one-tenth (8.1%) reported that their school districts paid no part of their health insurance premiums.

Major Medical Insurance

Slightly more than four-fifths (82.8%) of the agricultural education teachers said their major medical insurance premiums were either fully paid for (41.4%) or partially paid for (41.4%) by the school systems. An examination of the data presented in Table 24 illustrates that fewer than one-fifth (17.2%) of the respondents

Table 23.

Health Insurance Benefits of Agricultural Education
Teachers by Frequency and Percent

Premium Fully-Paid	Frequency	Percent
Yes, for employee only	72	27.9
No, only partially for employee	49	19.0
Yes, for employee and family	38	14.7
No, only partially for employee and family	78	30.2
No, all health insurance premiums are paid by teacher	21	8.1
Total	258	99.9 ^a

^a
Percent does not equal 100 due to rounding

Table 24.

Major Medical Insurance Benefits of Agricultural Education Teachers by Frequency and Percent

Premium Fully Paid	Frequency	Percent
Yes	108	41.4
No, only partially	108	41.4
No	45	17.2
Total	261	100.0

indicated that their major medical insurance premiums were paid by the employees.

Eye Care

The distribution of responses by agricultural education teachers as shown in Table 25 indicates that the greatest percentage of teachers (71.9%) said they received no employer paid eye care health benefits. Of those receiving eye care, 15.0% indicated their premiums were partially paid and 13.1% said they were fully paid.

Dental Care

Approximately one-fifth (20.5%) of the agricultural education teachers responding reported they received fully paid dental care as a health benefit. Nearly one-fourth (25.1%) said their dental care premiums were partially paid by their employers. Over one-half (54.4%) reported they did not receive dental care as a health benefit. Table 26 contains the distribution of responses regarding dental care as a health benefit.

Life Insurance

Nearly two-thirds (64.7%) of the respondents indicated that they did not receive fully paid life insurance policies from their employers. Slightly more than one-third (35.3%) indicated their employers did provide them with life insurance policies as an employee benefit (Table 27).

Table 25.

Agricultural Education Teachers Receiving Eye Care as a
Health Benefit by Frequency and Percent

Premium Fully-Paid	Frequency	Percent
Yes	34	13.1
No, only partially-paid	39	15.0
No	187	71.9
Total	263	100.0

Table 26.

Agricultural Education Teachers Receiving Dental Care as a Health Benefit by Frequency and Percent

Premium Fully-Paid	Frequency	Percent
Yes	53	20.5
No, only partially-paid	65	25.1
No	141	54.4
Total	263	100.0

Table 27.

Agricultural Education Teachers Receiving Fully-Paid Life Insurance by Frequency and Percent

Response	Frequency	Percent
Yes	91	35.3
No	167	64.7
Total	258	100.0

Sick Leave Provisions

The greatest percentage (37.0%) of agricultural education teachers indicated they were allowed 10 sick days per year. The second largest percentage (25.2%) said they were provided with 12 sick days per year. The mean number of sick days was 10.6 days per year as reported in Table 28.

Over one-half (52.5%) of the respondents said they were allowed to accumulate an unlimited number of sick days from year to year. Of the agricultural education teachers who reported a fixed number of cumulative sick days the range reported was from 0 to 300 days. The most frequent number of cumulative sick days reported was 180 days. Ranges in accumulated sick leave days are reported in Table 29.

Retirement Plan

The responses of agricultural education teachers regarding the availability of retirement plans are presented in Table 30. The responses show that over one-half (51.8%) of the agricultural education teachers had retirement plans that were partially paid for by employers. Approximately one-fifth (20.2%) indicated that the school system retirement plans were totally paid by the employers. Of the 257 agricultural education teachers responding, 15.6% reported their retirement plans were totally employee paid and 12.5% reported that no retirement plans were provided by their school systems.

Table 28.

Annual Sick Leave Provisions for Agricultural Education Teachers by Frequency and Percent

Days	Frequency	Percent
None	3	1.2
1 thru 5	26	10.2
6 thru 10	115	45.3
11 thru 15	99	39.0
16 thru 20	8	3.1
21 thru 25	2	0.7
26 thru 30	1	0.4
Total	254	99.9 ^a

Note. Common responses were: 10 days (37.0%) and 12 days (25.2%).

^a Percent does not equal 100 due to rounding

Mean = 10.6 days

SD = 3.6 days

Range = 0 thru 280 days

Table 29.

Annual Sick Leave Which Agricultural Education Teachers
May Accumulate From Year to Year by Frequency and Percent

Days	Frequency	Percent
None	6	6.1
1 thru 50	20	20.2
51 thru 100	24	24.2
101 thru 150	24	24.2
151 thru 200	21	21.2
201 thru 250	3	3.0
251 thru 300	1	1.0
Total	99	99.9 ^a

Note. 138 (52.5% of total) respondents indicated they had no limits on accumulated sick days. Not included in above data.

^a
Percent does not equal 100 due to rounding

Mean = 104 days

SD = 65.1 days

Range = 0 thru 300 days

Table 30.

Agricultural Education Teachers Receiving a School System Retirement Plan by Frequency and Percent

Response	Frequency	Percent
Yes, paid totally by school system	52	20.2
Yes, partially paid by school system	133	51.8
Yes, paid totally by employee	40	15.6
No retirement plan is provided by school system	32	12.5
Total	257	100.1 ^a

^a Percent does not equal 100 due to rounding

Instructional and Noninstructional Responsibilities

Objective 4 was to determine the major instructional and noninstructional responsibilities of agricultural education teachers. The following discussion examines the data collected with regard to this objective and is presented in Tables 31 through 37.

Agricultural Education Courses or Options Taught

As presented in Table 31 nearly three-fourths (73.3%) of all agricultural education teachers selected production agriculture as the most common agricultural education course taught. The second most frequent course taught was agricultural mechanics selected by 69.3% of the respondents. Over one-half (54.2%) of the respondents indicated that agriscience was a course being taught. The courses taught least frequently were environmental science (21.4%) and floriculture (18.4%).

Advising FFA

The greatest majority (95.8%) of all agricultural education teachers reported advising FFA chapters was part of their jobs (Table 32). Of those responding, 63.1% indicated they advise without assistance from other teachers. Fewer than one-third (32.1%) indicated that one other teacher assists with the FFA chapter. Table 33 examines the frequency and percent of agricultural education teachers who advise FFA and receive help from other teachers.

Table 31.

Agricultural Education Courses Being Taught by
Agricultural Education Teachers by Frequency and Percent

Course Title	Frequency	Percent of Total
Production Agriculture	189	73.3
Agricultural Mechanics	181	69.3
Agricultural Science	142	54.2
Horticulture	120	46.7
Agricultural Business	109	42.2
Natural Resource Management	75	29.5
Forestry	66	25.8
Environmental Science	55	21.4
Floriculture	47	18.4
Other Courses	39	15.2 ^a

^a Other courses included: Equine Science, Pet Care, Farm Management, Computers, and Aquaculture.

Table 32.

Agricultural Education Teachers Advising FFA by Frequency and Percent

Response	Frequency	Percent
Yes	249	95.8
No	11	4.2
Total	260	100.0

Table 33.

Agricultural Education Teachers Receiving Assistance With FFA by Frequency and Percent

Number of Other Teachers Assisting	Frequency	Percent of Total
0	157	63.1
1	80	32.1
2	10	4.0
3	0	0.0
4	2	0.8
Total	249	100.0

Teaching Adults

An examination of Table 34 shows that over three-fourths (76.7%) of all agricultural education teachers indicated that they did not teach adults. Of the 23.3% of the agricultural education teachers who indicated that adult education was part of their teaching assignments, only 3.1% said they were full-time adult instructors.

Advisor To Young Farmer Chapter

Over four-fifths (81.9%) of all agricultural education teachers indicated they did not advise Young Farmer chapters. Of those agricultural education teachers (18.1%) who indicated they did advise Young Farmer chapters, 77.6% said they advised alone; 20.4% reported they had one other teacher assisting, and 2.0% reported they had two teachers assisting. Tables 35 and 36 provide relevant data.

Noninstructional Duties

One-third (33.3%) of all agricultural education teachers said they had no assigned noninstructional duties. Approximately one-fourth (26.8%) reported they had one assigned noninstructional duty. Slightly more than one-fifth (22.2%) had two assigned duties. Table 37 shows the number of noninstructional duties assigned to agricultural education teachers by frequency and percentage.

Typically, the noninstructional duties reported by the teachers included: hall duty, lunchroom supervision, bus duty, study hall supervision, and lavatory supervision. The

Table 34.

Adult Teaching Responsibilities of Agricultural Education Teachers by Frequency and Percent

Percent of Time Teaching Adults	Frequency	Percent
0	201	76.7
1 thru 10	41	15.6
11 thru 20	7	2.7
21 thru 30	3	1.1
31 thru 40	0	0.0
41 thru 50	0	0.0
51 thru 60	1	0.4
61 thru 70	0	0.0
71 thru 80	0	0.0
81 thru 90	1	0.4
91 thru 100	8	3.1
Total	262	100.0

Note. Eight agricultural education teachers reported 100% adult assignments.

Table 35.

Advising Young Farmer Chapters as a Job Requirement of
Agricultural Education Teachers by Frequency and Percent

Response	Frequency	Percent
Yes, required	47	18.1
No, not required	213	81.9
Total	260	100.0

Table 36.

Agricultural Education Teachers Receiving Assistance With
the Young Farmer Chapter by Frequency and Percent

Number of Other Teachers Assisting	Frequency	Percent of Total
0	38	77.6
1	10	20.4
2	1	2.0
Total	49	100.0

Table 37.

Number of Noninstructional Duties Assigned to
Agricultural Education Teachers by Frequency and Percent

Additional Duties Assigned Daily	Frequency	Percent
0	87	33.3
1	70	26.8
2	58	22.2
3	33	12.6
4	9	3.4
5	3	1.1
6	1	0.4
Total	261	99.8 ^a

^a Percentage does not equal 100 due to rounding

Mean = 1.3 noninstructional duties

SD = 1.2 noninstructional duties

Range = 0 thru 6 noninstructional duties

mean number of noninstructional duties assigned to teachers was 1.3 duties.

Work Settings and Conditions

Objective 5 was to describe the work setting and working conditions in which agricultural education teachers are employed. Data relevant to this objective are discussed in the following section.

Classification of Teaching Assignment

Table 38 shows that nearly all (98.4%) of the agricultural education teachers identified their primary teaching assignments as full-time. Three respondents (1.2%) reported that they were part-time teachers and one respondent (0.4%) indicated that his assignment was classified as a long-term substitute position.

Contract Arrangements

Full-time teachers reported their contracts in either days or months employed. The data presented in Tables 39 through 41 illustrate that the range of annual contracts reported in months was 9 to 12 months, while those teachers who reported their contract in days reported a range of 180 to 246 days. The mean contract length reported in days was 213.5 days (Table 39). The mean contract length reported in months was 11.3 months (Table 40).

Agricultural education teachers who indicated they were employed between 180 and 199 days were classified as nine-month employees. Fewer than one-tenth (9.4%) were employed

Table 38.

Classification of Primary Assignment of Agricultural
Education Teachers by Frequency and Percent

Primary Assignment	Frequency	Percent
Regular full-time teacher	246	98.4
Part- time teacher	3	1.2
Long-term substitute	1	0.4
Total	250	100.0

Table 39.

Ranges of Agricultural Education Teachers Contract Length in Days by Frequency and Percent

Contract Length in Days	Frequency	Percent
180 thru 199	16	21.9
200 thru 219	16	21.9
220 thru 239	19	26.0
Over 240	22	30.1
Total	73	99.9 ^a

^a

Percent does not equal 100 due to rounding

Mean = 213.5 days

SD = 27.8 days

Range 180 thru 246 days

Table 40.

Annual Employment Contracts of Agricultural Education Teachers Reported in Months by Frequency and Percent

Contract Length in Months	Frequency	Percent
9	8	4.4
10	30	16.5
11	42	23.1
12	102	56.0
Total	182	100.0

Mean = 11.3 months

SD = 0.9 months

Range = 9 thru 12 months

on a 9-month basis. Less than one-fifth (18.0%) said they were employed on a 10-month basis (200-219 days) per year, while nearly one-fourth (23.9%) reported their annual contracts as 11 months (220-239 days) per year. The greatest percentage of teachers (48.6%) said they were employed on a 12-month basis (240-250 days) per year (Table 41).

Forty-three respondents indicated their annual contracts were changed in the last five years (Table 42). Of these, 76.7% said their contracts were reduced in length by a mean number of 21.3 days. Approximately one-fifth (23.3%) of the forty-three agricultural education teachers said their contracts were increased by a mean of 15.2 days.

Number Employed in School System

The data presented in Table 43 shows that the mean number of agricultural education teachers employed in the school system was 2.1 teachers. The range of full-time teachers employed in a single school system was 1 to 17 teachers. The greatest percentage (54.0%) were single-teacher departments. Over one-fifth (22.4%) were two-teacher departments. In addition, 21 respondents (8.0%) reported that their employment status was part-time (Table 44).

School Type

Over two-thirds (69.5%) of the agricultural education teachers identified the schools in which they work as comprehensive high schools. Agricultural education teachers identified a combination comprehensive high school and

Table 41.

Annual Employment Contracts of Agricultural Education Teachers by Frequency and Percent (Composite, Days and Months)

Range Months (Days)	Frequency	Percent
9 (180 thru 199)	24	9.4
10 (200 thru 219)	46	18.0
11 (220 thru 239)	61	23.9
12 (Over 239)	124	48.6
Total	255	99.9 ^a

a

Percent does not equal 100 due to rounding

Table 42.

Increases and Decreases in the Length of Agricultural Education Teacher's Contracts Since 1987 by Frequency and Percent

Range in Days	Frequency Increased	Percent	Frequency Decreased	Percent
No change	200	95.2	200	85.8
1 thru 10	6	2.9	11	4.7
11 thru 20	1	0.5	10	4.3
21 thru 30	2	1.0	6	2.6
31 thru 40	1	0.5	5	2.1
Over 40	0	0.0	1	0.4
Total	210	100.1	233	99.9 ^a

a

Percent does not equal 100 due to rounding.

Mean days increased = 15.2

Mean days decreased = 21.3

SD = 12.4 days

SD 13.1 days

Range 5 thru 40 days

Range 1 thru 44 days

Table 43.

Number (Part-Time and Full-Time) of Agricultural Education Teachers Employed in School Systems by Frequency and Percent

Number Employed	Frequency	Percent
1	139	53.1
2	66	25.2
3	23	8.8
4	9	3.4
5	10	3.8
Over 5	15	5.7
Total	262	100.0

Mean = 2.1 teachers

SD = 1.9 teachers

Range = 1 thru 17 teachers

Table 44.

Number of Agricultural Education Teachers Employed Part-Time
Within a School System by Frequency and Percent

Number of Teachers Employed Part-Time	Frequency	Percent
1	17	81.0
2	2	9.5
3	1	4.8
4	1	4.8
Total	21	100.1 ^a

a

Percent does not equal 100 due to rounding

Mean = 1.3 teachers

SD = 0.8 teacher

Range = 1 thru 4 part-time teachers

vocational school as the second largest school type (11.1%). Vocational high schools accounted for 7.6% of the school types and area/regional vocational high schools were 5.3%.

In addition to the different types of high schools, 6.5% of the respondents indicated they taught in middle schools or junior high schools. A summary of this information is provided in Table 45.

Student Population of School

The range in student population presented in Table 46 shows that one-fifth (20.0%) of all respondents reported that the student populations in the schools in which they taught ranged from 30 to 200 students. Over one-third (34.5%) said the student populations ranged from 201 to 500 students. Slightly more than one-fourth (26.3%) of the agricultural education teachers indicated that their student populations ranged from 501 to 1000 students. Less than one-fifth (19.3%) reported student populations exceeding 1,000 students. The mean student population was 662.4 students.

Teaching in One or More Buildings

Over three-fourths (76.0%) of the respondents said they taught in one building. Fewer than one-fourth (22.9%) indicated they taught in 2 buildings. Three agricultural education teachers (1.2%) reported they taught in 3 or more buildings (Table 47).

Table 45.

Type of School in Which Agricultural Education Teachers are Employed by Frequency and Percent

School Description	Frequency	Percent
Middle School/Jr.H.S.	17	6.5
Comprehensive H.S.	182	69.5
Vocational H.S.	20	7.6
Area/Regional Vocational	14	5.3
Combination	5	11.1
Total	262	100.0

Table 46.

Student Population in the Schools Where Agricultural
Education Programs Exist by Frequency and Percent

Student Population Ranges	Frequency	Percent
30 thru 200	51	20.0
201 thru 500	88	34.5
501 thru 1,000	67	26.3
1,001 thru 1,500	22	8.6
1,501 thru 2,000	16	6.3
2,001 thru 2,500	6	2.4
2,501 thru 3,000	3	1.2
3,001 thru 3,500	1	0.4
Over 3,501	1	0.4
Total	255	100.1 ^a

^a Percent does not equal 100 due to rounding

Mean = 662.4 students

SD = 593.9 students

Range = 30 thru 4,000 students

Table 47.

Number of School Buildings in Which Agricultural Education Teachers Teach by Frequency and Percent

Number of Buildings	Frequency	Percent
1	196	76.0
2	59	22.9
3	2	0.8
Over 3	1	0.4
Total	258	100.1 ^a

a

Percent does not equal 100 due to rounding

Number of Daily Instructional Periods

Table 48 shows that the greatest percentage (46.9%) of the respondents indicated that there were seven instructional periods in a typical school day. The second largest percentage (28.7%) of agricultural education teachers reported 6 instructional periods daily. The mean number of instructional periods was 6.7 periods.

Length of Instructional Periods

Instructional periods ranged from 40 minutes to 90 minutes in length with a mean of 51.4 minutes as presented in Table 49. Over two-thirds (69.4%) of all agricultural education teachers reported class periods of 50 to 55 minutes.

Facilities

Table 50 shows that the largest percentage (46.2%) of agricultural education teachers described their facilities as good. Over one-fourth (27.5%) of the respondents said their facilities were excellent. Approximately one-fifth (21.4%) described their facilities as fair, while 5% said their facilities were poor.

Academic Achievement Level of Students

Approximately two-thirds (66.5%) of the agricultural education teachers indicated that they perceived the general academic achievement level of their students was average. Nearly one-fourth (24.3%) characterized their students as primarily lower achieving. Less than one-tenth (9.1%) of the

Table 48.

Number of Instructional Periods in a School Day in Which
Agricultural Education May be Taught by Frequency and
Percent

Instructional Periods/day	Frequency	Percent
3	3	1.2
4	4	1.6
5	17	6.7
6	73	28.7
7	119	46.9
8	32	12.6
9	6	2.4
Total	254	100.1 ^a

^a

Percent does not equal 100 due to rounding

Mean = 6.7 periods

SD = 1.0 period

Range = 3 thru 9 periods

Table 49.

Length of Instructional Periods in Minutes Available for
Agricultural Education Classes by Frequency and Percent

Range in Minutes	Frequency	Percent
40 thru 45	43	17.1
46 thru 50	98	39.0
51 thru 55	94	37.5
56 thru 60	13	5.2
Over 60	3	1.2
Total	251	100.1^a

^a

Percent does not equal 100 due to rounding

Mean = 51.4 minutes

SD = 6.2 minutes

Range = 40 thru 90 minutes

Table 50.

Faculty Ratings of Agricultural Education Facilities by
Frequency and Percent

Rating	Frequency	Percent
Excellent	72	27.5
Good	121	46.2
Fair	56	21.4
Poor	13	5.0
Total	262	100.1 ^a

a

Percent does not equal 100 due to rounding

respondents said their students were primarily higher achieving students. A summary of these data are provided in Table 51.

Work Load

Objective 6 was to determine the work load of agricultural education teachers. This section provides information pertaining to the final objective of the study.

Instructional Periods Taught Each Day

The greatest percentage (44.3%) of agricultural education teachers teach 5 class periods each day. The mean number of class periods taught daily was 5.2 periods (Table 52).

Instructional Periods In Nonagricultural Education Classes

Table 53 illustrates that most (61.3%) agricultural education teachers reported they did not spend instructional periods in nonagricultural education classes. Slightly more than one-fifth (21.5%) of the teachers said they spend one class period each day teaching nonagricultural education classes. A mean of 0.7 class periods per day in nonagricultural education classes was reported.

Instructional Time for SAE, FFA, etc.

As shown in Table 54 nearly three-fourths (72.2%) of the agricultural education teachers said they had one period per day allotted for planning, student visitation, or student conferences. Slightly less than one-fourth (22.4%) said they were given two periods per day for such activities. The mean

Table 51.

Perceived Academic Achievement Level of Agricultural Education Students as Described by Agricultural Education Teachers by Frequency and Percent

Achievement Level	Frequency	Percent
Primarily higher achieving	24	9.1
Primarily average achieving	175	66.5
Primarily lower achieving	64	24.3
Total	263	99.9 ^a

^a

Percent does not equal 100 due to rounding

Table 52.

Number of Periods Taught Daily by Agricultural Education Teachers by Frequency and Percent

Number of Periods	Frequency	Percent Taught
1	4	1.6
2	3	1.2
3	7	2.8
4	19	7.7
5	109	44.3
6	92	37.4
7	10	4.1
8	1	0.4
9	1	0.4
Total	246	99.9 ^a

^a Percent does not equal 100 due to rounding

Mean = 5.2 periods

SD = 1.1 periods

Range 1 thru 9 periods

Table 53.

Nonagricultural Education Instructional Periods Taught
Daily by Agricultural Education Teachers by Frequency and
Percent

Number of Periods Taught	Frequency	Percent
0	160	61.3
1	56	21.5
2	22	8.4
3	14	5.4
4	7	2.7
5	0	0.0
6	2	0.8
Total	261	100.1 ^a

^a Percent does not equal 100 due to rounding

Mean = 0.7 periods

SD = 1.1 periods

Range = 0 thru 6 periods

Table 54.

Number of Instructional Periods Allocated Daily to
Agricultural Education Teachers for Planning, SAE Visits,
and Student Conferences by Frequency and Percent

Number of Periods	Frequency	Percent
0	22	8.5
1	187	72.2
2	48	18.5
3	0	0.0
4	1	0.4
5	1	0.4
Total	259	100.0

Mean = 1.1 periods

SD = 0.59 period

Range = 0 thru 5 periods

number of periods allocated for planning, student visitation, and student conferences was 1.1 period per day.

Adult Education

As reported earlier in Tables 35 and 36 fewer than one-fifth (18.1%) of the agricultural education teachers reported that adult education was a required part of their job. The remaining 81.9% reported that adult education was not considered part of their job. Table 36 indicated that fewer than one-fourth (22.4%) of agricultural education teachers working with Young Farmer chapters have any assistance from other teachers.

Adult Enrollment

The agricultural education teachers who reported adult teaching responsibilities were asked to report their adult enrollments. Of those reporting, adult enrollments ranged from 5 to 750 adults. The most common adult enrollment reported was 20. The mean adult enrollment was 47.3. Ranges for adult enrollments are presented in Table 55.

Table 55.

Number of Adults Enrolled in Agricultural Education
Classes Frequency and Percent

Range of Adult Enrollment	Frequency	Percent
1 thru 20	34	51.5
21 thru 40	18	27.3
41 thru 60	6	9.1
61 thru 80	1	1.5
81 thru 100	1	1.5
Over 101	6	9.1
Total	66	100.0

Mean = 47.3 adults

SD = 99.2 adults

Range = 1 thru 750 adults

Chapter 5

Summary, Discussion, and Recommendations

King and Key (1975) conducted the last national study of the salaries and working conditions of agricultural education teachers in the United States. The principal source of data collected by King and Key was state supervisors of agricultural education rather than agricultural education teachers. It was the need for current information about the salaries and working conditions of agricultural education teachers which motivated the current study.

Summary

The purpose of the study was to determine the salaries and working conditions of agricultural education teachers in the United States. The specific objectives of the study were:

1. To determine the demographic characteristics of agricultural education teachers.
2. To determine the salaries, salary supplements, and monetary fringe benefits of agricultural education teachers.
3. To determine the nonmonetary benefits of agricultural education teachers.
4. To determine the major instructional and noninstructional responsibilities of agricultural education teachers.

5. To describe the work settings and working conditions in which agricultural education teachers are employed.
6. To determine the work loads of agricultural education teachers.

Procedure

The population for this study included all secondary agricultural education teachers identified in the 1990 Agriculture Teachers Directory (Henry, 1990). A probability sample was selected using systematic sampling with a random start. A sample size of 332 was selected based upon tables for determining sample size (Oliver, Hinkle, & Hinkle, 1983).

A three-part survey instrument was developed based upon a review of literature, and recommendations by faculty members from two land-grant university agricultural education departments. The instrument was field tested with 30 agricultural education teachers. Part one of the questionnaire was developed to determine the background and working conditions of agricultural education teachers; part two, salaries and benefits; and part three, demographics.

Number-coded questionnaires, cover letters, and self-addressed stamped envelopes were sent to 332 agricultural education teachers. After three follow up efforts, 263 usable questionnaires were returned representing a 79.2% response rate. In order to provide comparative data between respondents and nonrespondents, a small (13.0%) random

sample of nonrespondents were telephoned and asked to respond to 20 selected survey items. Data were analyzed using the Statistical Package for the Social Sciences (SPSS-X, 1983). The statistical methods used in analyzing the data included frequencies, means, modes, and ranges.

Demographic Characteristics

Gender

The greatest percentage (94.9%) of all respondents were male. Only 5.1% of those responding were female.

Age

The mean age of all respondents was 38.3 years. Ages ranged from 22 to 65 years.

Race

Most (93.7%) of the respondents reported their race as white. Slightly more than 2% (2.4%) of the respondents were African Americans and 2% identified their race as Hispanic.

Educational Preparation

Over one-half (56.8%) of the agricultural education teachers said they held bachelors degrees and nearly 42% held masters degrees. Less than 1% held doctoral degrees or less than bachelors degrees.

Teaching Experience

The mean number of years of teaching experience for agricultural education teachers was 13.6 years with a range from 1 to 30 years. Over one-half (53.6%) had taught at the same schools 10 years or more.

Teaching Certification

Nearly one-half (49.4%) of the respondents reported their teaching certifications as permanent with periodic renewal required. Slightly less than 40% said their certifications were permanent with no renewal required. Fewer than 10% reported their certifications were temporary.

Salaries, Salary Supplements, and Monetary Benefits

Salaries

The mean salary for agricultural education teachers was \$32,002.00 with a range from \$11,600.00 to \$58,200.00. One half (50.0%) of the agricultural education teachers reported their salaries to be over \$31,000.00 per year and slightly more than 10% reported salaries less than \$22,999.00

Additional Pay for Advising FFA

Nearly two-thirds of the agricultural education teachers did not receive supplemental salaries for advising FFA. For those teachers receiving extra pay for advising FFA, the mean salary was \$1,261.32 with a range of \$50.00 to \$8,700.00.

Pay for Adult Work

Only 17.9% of the respondents reported they received extra pay for adult work. For those receiving supplemental salary for adult work the mean salary was \$654.51 with a range of \$60.00 to \$3,600.00

Paid Vacation

Approximately one-third of the agricultural education teachers reported they received paid summer vacations. The mean number of paid summer vacation days was 10.9 days with range from 1 to 30 days. Additionally, most (91.1%) agricultural education teachers reported they were not allowed to accumulate paid vacation days from year to year.

Reimbursement for Graduate Tuition

Nearly three-fourths of the respondents reported they received no reimbursement for graduate tuition. Slightly less than 20% indicated they received partial reimbursement while 7.2% said they received full reimbursement.

Mileage Reimbursement

The mean rate for mileage reimbursement was 22.3 cents per mile with a range from 10 to 33 cents per mile. Nearly four-fifths of all respondents reported they received mileage reimbursement.

Travel Budget

The mean travel budget for agricultural education teachers was \$1,211.76. Budgets for travel ranged from 0 to \$12,000.00.

Nonmonetary Fringe Benefits

Paid Health Insurance

The greatest percentage (30.2%) of agricultural education teachers reported that their health insurance premiums were partially paid for both the employee and the employee's family. Over one-fourth (27.9%) indicated their

health insurance premiums were fully paid for the employee only. Less than one-fifth (19.0%) said their health insurance premiums were only partially paid for the employee and fewer than 10% said their school districts did not pay any part of their health insurance.

Major Medical Insurance

Most (41.1%) of the agricultural education teachers said their major medical insurance premiums were fully paid. Similarly, 41.1% reported some form of partially paid major medical insurance premiums.

Eye Care

Most (71.9%) of the respondents reported they did not receive eye care as a paid insurance benefit. Approximately 13% said they received eye care as a fully-paid benefit while 15% said it was partially paid by the employer.

Dental Care

Approximately 20% of the respondents reported they received fully-paid dental care while 25% said they received a partially-paid dental care benefit. The greatest percentage (54.4%) said they received no dental care as a health benefit.

Life Insurance

Approximately two-thirds (64.7%) of the respondents did not receive employer paid life insurance policies. Slightly more than one-third (35.3%) of the respondents reported receiving employer paid life insurance policies.

Sick Leave Provisions

The mean number of sick leave days provided each year was 10.6 days with a range of 0 to 30 days. The greatest percentage (52.5%) of agricultural education teachers said they were allowed to accumulate an unlimited number of sick days.

Retirement Plan

Over one-half of the agricultural education teachers said they were provided with retirement plans that were partially paid for by the school districts. While approximately 20% said their retirement plans were totally paid for by the employers, slightly more than 15% said their school districts did not provide them with retirement plans.

Instructional and Noninstructional Responsibilities

Teaching Adults

The greatest percentage (76.7%) of agricultural education teachers did not teach adults. Approximately 3% of the agricultural education teachers who teach adults reported that they were full-time adult instructors.

Agricultural Education Courses or Options Taught

The three most common courses taught by agricultural education teachers were: production agriculture, agricultural mechanics, and agriscience. Other courses reported as being taught included: forestry, horticulture, wildlife conservation, and floriculture.

Advisor to a Young Farmer Chapter

Slightly more than 80% of the agricultural education teachers said they did not advise Young Farmer Chapters. Of those teachers (18.8%) who did advise Young Farmer Chapters, 14.6% did so without any assistants.

Advising FFA

Most (95.8%) of the agricultural education teachers reported advising FFA as part of their jobs. Slightly more than 60% of the respondents said they advise the FFA chapters without any assistants. Approximately 30% indicated that one other teacher assisted with FFA.

Noninstructional Duties

One-third of the respondents reported they had no assigned noninstructional duties while 26.8% said they typically had one assigned noninstructional duty daily. Noninstructional duties included: hall supervision, lunchroom supervision, and study hall supervision.

Work Settings and Working Conditions

Classification of Teaching Assignment

Nearly all (98.4%) of the agricultural education teachers reported their primary teaching assignments as full-time. Only three (1.2%) agricultural education teachers were classified as part-time.

Contract Arrangements

The mean contract length reported in days was 220.4 days with a range of 180 to 246 days. The mean contract length given in months was 11.3 months with a range of 9 to

12 months. Forty-four respondents (16.7%) said the length of their contracts had been changed in the past five years. Of these, 77 percent reported their contracts had been reduced in length.

Number of Agricultural Education Teachers Employed

The mean number of full-time agricultural education teachers employed in a school system was 2.1 teachers with a range of 1 to 17 agricultural education teachers employed. Over one-half of the respondents reported that only one agricultural education teacher was employed in the school system.

School Type

Most (69.5%) of the agricultural education teachers classified the type of school in which they taught as a comprehensive high school. Slightly more than one-tenth (11.1%) of the teachers classified their school type as a combination high school and vocational technical school.

Student Population

The mean student population reported was 662.4 students with a student enrollment range from 30 to 2,000 students. The largest percentage (43.3%) of teachers said their student populations ranged from 201 to 500 students.

Teaching in More Than One Building

The greatest percentage (76.0%) of teachers said they taught in one building. Approximately 23% reported teaching in two buildings.

Number of Daily Instructional Periods

The mean number of daily instructional periods was 6.7 periods. The range of periods in a typical day was 3 to 9 periods.

Length of Instructional Periods

The mean length of instructional periods was 51.4 minutes. The reported range was 40 to 90 minutes in length.

Facilities

Nearly three-fourths of the agricultural education teachers said their facilities were either good (46.2%) or excellent (27.5%). However, approximately 5% said their facilities were poor.

Academic Achievement Level of Students

The greatest percentage (66.5%) of the agricultural education teachers characterized their students as being of average academic achievement level. Nearly 25% said their students were lower achieving while approximately 9% said their students were primarily higher achieving students.

Work Load

Instructional Periods Taught Each Day

The mean number of instructional periods taught each day was 5.2 periods with a range of 1 to 9 periods. The most common number of periods taught daily by agricultural education teachers was 5 periods.

Instructional Periods in Nonagricultural Education Classes

The mean number of periods agricultural education

teachers spent each day in nonagricultural education classes was 0.7 periods. The range was 0 to 6 periods each day with most (61.3%) of the agricultural education teachers reporting that they did not spend time in nonagricultural education classes.

Instructional Time for SAE, FFA, etc.

The mean number of periods allotted for SAE visits, planning, and student conferences was 1.1 period per day. A range of 0 to 5 periods daily was determined.

Adult Education

Most (81.9%) agricultural education teachers said that adult education was not part of their job. Of the 18.1% of agricultural education teachers who teach adults most (77.6%) do not have any assistants.

Adult Enrollment

The mean adult enrollment was 47.3 adults with a range from 5 to 750. The most common adult enrollment reported was 20 adults.

Discussion

The typical agricultural education teacher is a white, middle-aged male teaching in a comprehensive high school with a student population of 500 students or less. An examination of the data shows that very few minorities or females are employed as agricultural education teachers. Nearly all agricultural education teachers have earned either bachelors or masters degrees. In fact, many agricultural education teachers have continued graduate

course work beyond their masters degrees. The data also suggest that agricultural education teachers are experienced and unlikely to move from school to school.

The data show that there is relatively wide distribution of the salaries of agricultural education teachers. However, the mean salary suggests that the salaries of many agricultural education teachers may be competitive with those of other professionals having similar academic preparation and working conditions.

Although there seems to be a significant improvement in the salaries of agricultural education teachers, other monetary and nonmonetary benefits appear to be limited. For example, most agricultural education teachers are required to advise FFA, however, very few receive supplemental compensation. In addition, only a small percentage of those agricultural education teachers working with adults receive salary supplements.

Even though approximately 50% of the agricultural education teachers indicated that they were employed on a 12-month basis, many do not receive the benefit of paid vacations. Moreover, of those receiving paid vacations, there was practically no opportunity to accumulate vacation days from year to year.

The data suggest that the greatest percentage of agricultural education teachers have strived to remain technically and professionally current by enrolling in graduate courses. Relative to this, the data show that

most agricultural education teachers must pay part of, or all of, their graduate course tuition.

Most agricultural education teachers receive a fixed number of sick days each year as part of their health benefits. However, there is a wide distribution of other health benefits. Typically, agricultural education teachers are assuming at least partial payment of their health insurance premiums. Very few agricultural education teachers receive such fully paid health benefits as: eye care, dental care, prescription plan, or life insurance.

Although most agricultural education teachers still teach production agriculture and agricultural mechanics, the data indicate agriscience is becoming a significant part of the agricultural education curriculum. In addition to their teaching responsibilities, the data support the fact that many agricultural education teachers assume the roles of FFA advisors, adult instructors, and Young Farmer advisors. Further, nearly all agricultural education teachers are required to perform one or more noninstructional duties throughout the school day.

Recommendations

Based upon the findings of the study and the review of literature, the following recommendations are offered.

1. That the information in this study be made available to the National Vocational Agriculture Teachers Association, National Association of Supervisors of Agricultural Education, and the

American Association for Agricultural Education.

2. That the results of this study be made available to federal and state department officials who are in positions to make decisions which may affect or influence the salaries and working conditions of agricultural education teachers.
3. That all organizations and associations involved in agricultural education develop and implement a plan to increase the number of minorities and females engaged in teaching agricultural education.
4. That school officials examine the wide range of salaries reported and take action to increase salaries at the lowest end of the schedule.
5. That school administrators examine the number of additional daily duties of their agricultural education teachers and evaluate the effect of these duties on the performance of the agricultural education teacher.
6. That school officials promote improvement in the professional and technical competencies of agricultural education teachers by providing fully reimburseable tuition for graduate level courses.
7. That those localities, states, and regions which exhibit inconsistencies in the mean salaries, benefits, and working conditions of agricultural education teachers evaluate and pursue avenues

appropriate to the elimination of such inconsistencies.

8. That agricultural education teachers, state supervisors, and teacher educators develop guidelines and standards for agricultural education programs within their states.

Recommendations for Further Study

1. That the data in this study be subjected to more complete statistical analysis for regional comparison purposes.
2. That the salaries, monetary, and nonmonetary benefits reported in this study be compared to the salaries, monetary, and nonmonetary benefits of other agricultural professionals with similar education and experience.
3. That this study or a similar study be conducted annually for the purpose of providing up-to-date information.
4. That all states be encouraged to conduct similar studies to provide for accurate state and regional comparisons.
5. That a similar study be conducted to include the salaries and working conditions of beginning agricultural education teachers.
6. That a similar study be conducted to describe in greater detail the daily working conditions of agricultural education teachers.

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Appendix A

Letter To Field Test Participants

February 25, 1991

Dear Agricultural Education Teacher,

The future of agricultural education depends upon an adequate supply of certified agricultural education teachers. As you may know, the most recent study of the supply and demand of agricultural education teachers indicates that we are now experiencing a shortage of agricultural education teachers. This shortage seems to be worsening each year.

How can current agricultural education teachers such as yourself help? I need your assistance to refine or polish a questionnaire for use in a national study of secondary agricultural education teachers. The specific objectives of this study are:

1. To determine the salary, salary supplements, and monetary fringe benefits of agricultural education teachers.
2. To determine the nonmonetary benefits of agricultural education teachers.
3. To determine the major instructional and non-instructional responsibilities of agricultural education teachers.
4. To describe the work setting and working conditions of agricultural education teachers.
5. To determine the work load of agricultural education teachers.

Please complete the enclosed questionnaire and return it to me in the stamped, self-addressed envelope on or before March 6, 1991. As you complete the questionnaire, please feel free to make comments concerning clarity or appropriateness of the items.

You can be assured that your responses will be held in strict confidence. The result of the study will be reported in group form only.

Your cooperation and assistance is greatly appreciated.

Sincerely,

Jim Howe,
Agricultural Education Teacher & FFA Advisor
Oley Valley High School

Appendix B
Final Questionnaire

PART I--BACKGROUND AND WORKING CONDITIONS
--

1. How do you classify your PRIMARY assignment as a teacher of agricultural education at your school?
 - a. Regular full-time teacher
 - b. Part-time teacher (please specify percent of time employed _____%)
 - c. Long-term substitute (i.e., your assignment is for a temporary or defined period of time)

2. Which of the following best describes the school in which you teach?
 - a. Middle school or junior high school
 - b. Comprehensive high school
 - c. Vocational high school
 - d. Area/regional vocational high school
 - e. Combination of the above, please describe

3. Including this year, how long have you taught agricultural education at your present school?
 _____ years

4. What is the student population in the school building in which you teach?
 _____ students

5. Do you teach at more than one school building?
 - a. Yes, how many?
 - b. No

6. Do you teach adults?
 - a. No
 - b. Yes, full time
 - c. Yes, part time, _____ % of teaching assignment

7. How many adults are currently enrolled in your program?
 _____ adults enrolled.

8. Which of the following courses or options do you personally teach? (Circle all that apply.)
 - a. Ag Production
 - b. Ag Mechanics
 - c. Ag Business/Supplies
 - d. Agriscience
 - e. Environmental Science
 - f. Floriculture
 - g. Forestry
 - h. Horticulture
 - i. Natural Resource Management
 - j. Others (please describe) _____

9. Including yourself, how many agriculture teachers are employed within your school system?
- _____ employed full-time
 - _____ employed part-time
 - _____ total employed including myself
10. Which of the following statements best describes the general academic achievement level of your students relative to other students in your school?
- Primarily higher achieving students
 - Primarily average achieving students
 - Primarily lower achieving students
11. Which of the following terms best describes your facilities in relation to your curriculum?
- Excellent
 - Good
 - Fair
 - Poor
12. How many instructional periods are there in your typical school day?
_____ periods per day
13. How many minutes in length are most instructional periods in your school day?
_____ minutes
14. On the average, how many Instructional periods do you spend each day on non-agriculture classes (teaching science, study halls, etc.)?
_____ non-agricultural classes each day
15. On the average, how many instructional periods do you teach each day (do not include study hall supervision)?
_____ periods per day
16. How many periods per day are you allotted for activities such as planning, student visitations, student conferences, etc.?
_____ periods per day
17. Do you serve as an advisor to a Young Farmer chapter?
- No
 - Yes, how many other teachers assist you? _____
18. Do you serve as an advisor to an FFA chapter?
- No
 - Yes, how many other teachers assist you? _____
19. Including the present year, how many years of teaching experience do you have?
_____ Years

20. Identify your highest level of formal education.
- Less than bachelor's degree
 - Bachelor's degree
 - Bachelor's degree + additional credits
 - Master's degree
 - Master's degree + additional credits
 - Doctorate
21. My teaching certification is
- Permanent with no requirement for renewal
 - Permanent with periodic renewal requirements
 - Temporary, working towards permanent certification
 - Others (please describe) _____

22. Is a Master's degree required to maintain your teaching certification?
- Yes
 - No
23. Are you certified to teach subjects other than agricultural education?
- No
 - Yes, other certification
24. Please list the non-instructional, school related duties to which you are assigned during the school day (include such activities as study hall supervision, lunch duty, hall duty, etc.).
- _____
- _____
- _____

PART II: SALARIES AND BENEFITS

1. What is your 1990-1991 salary as an agricultural education teacher (to nearest \$100)? Include base salary & summer salary, supplemental pay for advising FFA, teaching adults, or working with Young Farmers. Do not include supplemental salary for such things as coaching or directing a class play).
\$ _____ 1990-1991 salary
2. How would you rate your salary increases since 1987?
- Excellent
 - Good
 - Fair
 - Poor

3. What is the length of your annual contract? (Answer only one)
 - a. _____ days. OR
 - b. _____ months
4. Since 1986, how has the length of your contract changed?
 - a. Remained unchanged
 - b. Decreased by _____ days
 - c. Increased by _____ days
5. Is advising FFA a requirement of your job?
 - a. Yes
 - b. No
6. Do you receive extra pay for advising FFA? (If yes, please indicate amount received)
 - a. Yes, \$ _____ per year
 - b. No
7. Is adult education a requirement of your job?
 - a. Yes
 - b. No
8. How much time do you spend on adult work each year? (Answer only one)
 - a. _____ hours per year OR
 - b. _____ days per year
9. Do you receive extra pay for your adult work? (If yes, please indicate amount)
 - a. Yes, \$ _____ Per year
 - b. No
10. Does your school pay the premium for health insurance (Circle One)?
 - a. Yes, fully paid for the employee only
 - b. Yes, partially paid for the employee only
 - c. Yes, fully paid for the employee and family
 - d. Yes, partially paid for employee and family
 - e. No, all health insurance is paid for by the employee
11. Does your school system pay the premium for major medical insurance?
 - a. Yes
 - b. Yes, partially paid
 - c. No
12. Does your school system pay the premium for eye care?
 - a. Yes
 - b. Yes, partially paid
 - c. No
13. Does your school system pay the premium for dental care?
 - a. Yes
 - b. Yes, partially paid
 - c. No

14. Does your school provide you or your family with any other medical benefits not identified here? (Please list any that may apply)
- _____
- _____
- _____
15. Does your school provide you with fully paid life insurance?
- Yes
 - No
16. What are the sick-leave provisions at your school?
- _____ days per year
 - _____ days of maximum accumulation
 - Other, _____
17. Does your school provide for professional leave (sabbatical leave) for extended periods of time?
- No
 - Yes. The provisions include _____
- _____
- _____
18. Does your school system have a retirement plan?
- Yes, paid totally by employer
 - Yes, but only partially paid by employer
 - Yes, paid totally by me
 - No, there is no retirement plan
19. If you are employed beyond the normal school year do you receive paid vacation?
- Yes, _____ paid days of vacation
 - No
20. How many paid vacation days can you accumulate from year to year?
- _____ Cumulative vacation days
21. Does your school reimburse you for graduate tuition?
- Yes, total reimbursement
 - Yes, partial reimbursement
 - No reimbursement
21. Does your school reimburse your mileage for supervised agricultural experience visits?
- Yes, at \$ _____ per mile
 - No
22. What is your total travel budget for this school year?
- \$ _____

PART III . DEMOGRAPHIC INFORMATION

- 1. Age at last birthday:

- 2. Gender: (check one)
 - a. Male
 - b. Female

- 3. Race: (check one)
 - a. White (not of Hispanic Origin)
 - b. Hispanic
 - c. African-American
 - d. Native American
 - e. Other (specify) _____

THANK YOU!

Code No. _____
(Used only to follow up nonrespondents)

Return to:
Jim Howe
Agricultural Education Teacher
Oley Valley High School
Oley, PA 19547



Appendix C
Letter To Survey Participants

OLEY VALLEY SCHOOL DISTRICT
OLEY, BERKS COUNTY, PENNSYLVANIA 19647
TELEPHONE (215) 987-8217 4100

March 30, 1991

Dear Agricultural Education Teacher,

The future of agricultural education depends upon an adequate supply of certified agricultural education teachers. As you may know, the most recent study of the supply and demand of agricultural education teachers indicates that we are now experiencing a shortage of agricultural education teachers. This shortage seems to be worsening each year.

How can agricultural education teachers such as yourself help? Presently, there are no data regarding the salaries and working conditions of agricultural education teachers. As an agricultural education teacher, I believe this information would be valuable in recruiting new teachers into the profession.

The enclosed questionnaire and objectives of the study have been reviewed by Dr. Larry Case, National FFA Advisor, who has lent his support to this study by co-signing this letter.

The objectives of this study are:

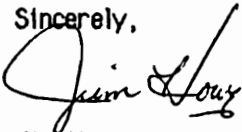
1. To determine the salary and monetary fringe benefits of agricultural education teachers.
2. To determine the non-monetary benefits of agricultural education teachers.
3. To determine the major instructional and non-instructional responsibilities of agricultural education teachers.
4. To describe the work setting and working conditions of agricultural education teachers.
5. To determine the work load of agricultural education teachers.

Please take about 15 minutes to complete the enclosed questionnaire and return it to me in the stamped, self-addressed envelope on or before April 25, 1991.

You can be assured that your responses will be held in strict confidence. The result of the study will be reported in group form only.

Your cooperation and assistance is greatly appreciated.

Sincerely,



Jim Howe
 Agricultural Education Teacher
 Oley Valley High School



Dr. Larry Case
 National FFA Advisor
 National FFA Center
 Alexandria, VA 22309

Appendix D

First Follow-Up Letter To Survey Participants

OLEY VALLEY SCHOOL DISTRICT

OLEY, BERKS COUNTY, PENNSYLVANIA 19547

TELEPHONE [215] 987-6217

April 26, 1991

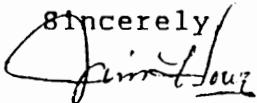
Dear Agricultural Education Teacher,

Recently I mailed you a questionnaire pertaining to the salaries and working conditions of aricultural education teachers. Your participation in this study is essential to assure the findings are representative of all agricultural education teachers.

As an ag. teacher I know how busy you are. However, the information this survey will provide is very important to the future of our profession. Please take a few minutes of your time to complete the questionnaire I mailed you approximately two weeks ago. The information you provide will be summarized and recoded in group form only. If you need another copy of the questionnaire, please contact me at the above address or call 215-987-4109. The deadline for returning the questionnaire is May 6, 1991.

In the event that you have already completed and returned the questionnaire, please disregard this letter and accept my sincere thanks for helping to conduct this study.

Sincerely,



Jim Howe,
Agricultural Education Teacher & FFA Advisor
Oley Valley High School

Appendix E

Second Follow-Up Letter To Survey Participants

OLEY VALLEY SCHOOL DISTRICT

OLEY, BERKS COUNTY, PENNSYLVANIA 19547

TELEPHONE (215) 987-6217

May 13, 1991

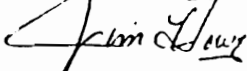
Dear Agricultural Education Teacher,

Several weeks ago I mailed you a questionnaire pertaining to the salaries and working conditions of agricultural education teachers. A national study of agricultural education teachers has not been conducted since 1976. Your participation in this study is essential to assure the findings are representative of all agricultural education teachers. One possible use of this study is to recruit individuals into the profession. The current shortage of agricultural education majors experienced in several parts of the country is a concern to all of us.

Enclosed is another copy of the questionnaire. Please take a few minutes to complete and return the questionnaire as quickly as possible. The deadline for returning the questionnaire is May 27, 1991. Be assured that your name will be held in strict confidence and your responses will be summarized and recoded in group form only. If you have any questions regarding this study please don't hesitate to contact me at 215-987-4109.

Approximately 200 of the 332 agricultural education teachers sampled have returned the questionnaire. I look forward to receiving your input in this study. Please accept my sincere thanks for helping to conduct this important study.

Sincerely,



Jim Howe

Agricultural Education Teacher & FFA Advisor
Oley Valley High School


VITA

James D. Howe was born on March 24, 1953, in Wilkes Barre, Pennsylvania. He was graduated from James M. Coughlin High School in June, 1971. He enrolled in Kutztown State College to pursue a Bachelor of Science degree in Biology. After receiving his bachelors degree in 1975 he taught biology at Mountoursville High School from January, 1976, through June, 1978.

In September, 1979 he began working toward his Master of Education degree at The Pennsylvania State University, State College, Pennsylvania. While enrolled at The Pennsylvania State University he served as a graduate assistant in the Animal Bioscience Department. After completing his Masters of Education program in July, 1980, he accepted an agricultural education teaching position in the Oley Valley School District.

The author began his doctoral studies at Virginia Polytechnic Institute and State University in July, 1989. He was both a half-time instructor and graduate teaching assistant in the Agricultural Education Program Area.

James D. Howe completed his Doctor of Education degree in January, 1992 with a major in Vocational and Technical Education.

A handwritten signature in cursive script that reads "James D. Howe". The signature is written in black ink and is positioned centrally below the text of the vita.