

AN ABSTRACT OF THE THESIS OF

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Purpose of the Study

This exploratory study examined whether nontraditional career role (female) teachers in vocational agriculture differ significantly from traditional career role (male) teachers in vocational agriculture on perceived (a) events in career choice, (b) work satisfaction, and (c) future career plans.

The Procedure

A survey instrument was developed, pilot tested, and administered to a random sample of male and female vocational agriculture teachers in California, Florida, Ohio, New York, and Virginia. The sample for the study consisted of 116 male and 116 female secondary vocational agriculture teachers who had taught seven years or less. The Student "t" statistic was used to analyze contrast among the mean scores for each of the instrument statements related to career choice influence, work satisfaction, and future career plans.

Selected Findings

Significant differences between male and female vocational agriculture teachers' perception of their career choice influence, work satisfaction, and career plans were indicated at the .05 level of confidence.

In relation to career choice, female vocational agriculture teachers were more positively influenced by mother or mother figure and peer of the opposite sex, than male vocational agriculture teachers were. However, the male vocational agriculture teachers reported that FFA, high school counselor, and high school vocational agriculture teacher were more influential on their career choice than the female vocational agriculture teachers reported.

In relation to work satisfaction, female vocational agriculture teachers were less satisfied with feedback on performance, stress inoculation, and recognition than male vocational agriculture teachers. Female vocational agriculture teachers were more satisfied with salary than were male vocational agriculture teachers.

Significant differences, related to career plans, were found between the male and female vocational agriculture teachers for both the coming year and five years into the future. Male vocational agriculture teachers perceived a greater possibility than female vocational agriculture teachers of remaining in the present teaching position, becoming a department head, and leaving teaching for either a vocational agriculture-related job, or farming or ranching. Five years into the future, female vocational agriculture teachers perceived a greater possibility than male vocational agriculture teachers of leaving

teaching permanently for a nonagricultural related career change or full-time homemaking, as well as leaving teaching temporarily for full-time homemaking. The female vocational agriculture teacher also saw part-time employment, as a homemaker and as a teacher, as a greater possibility in five years than did the male vocational agriculture teacher.

Implications

Educational leaders who are concerned about the future supply and demand for vocational agriculture teachers must recognize that differences exist between male and female vocational agriculture teachers for career choice influences, work satisfaction factors, and career plan options. In addition, the differences that do exist must be examined by the educational leaders as to reasons for their existence, degree of existence, and the consequential effect on the recruitment and retention of vocational agriculture teachers. Information on these factors can aid in developing strategies for equalizing teacher supply and demand. Specific recommendations can be found in Chapter V, "Summary, Conclusions, and Recommendations."

Traditional and Nontraditional Career Role
Vocational Agriculture Teacher Perception of
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"Today when I
was thinking
about my career
I thought of you
and remembered,
thank you for
touching ... my life."

Georgia Roule

TABLE OF CONTENTS

	<u>Page</u>
I. Introduction	1
Background	1
Statement of the Problem	3
Rationale for the Study	4
Career Choice	5
Work Satisfaction	6
Future Career Plans	8
Objectives of the Study	9
Assumptions of the Study	10
Delimitations	10
Definition of Terms	11
II. Review of Related Literature	13
Introduction	13
Selected Theories Related to Career Choice	14
Developmental Theory of Career Development	14
Personality Theory of Career Development	16
Sociological Theory of Career Development	17
Summary	18
Variables Influential on Career Choice	18
Personal Interest	18
Media	19
Peer Group	20
Educational Personnel	20
Class and Work Experiences	21
Parents and Relatives	21
Role Models	22
Summary	22
Work Satisfaction	23
Job Satisfaction Theories	24
Need Fulfillment Theory	24
Discrepancy Factor Theory	24
Equity Theory	25
Two Factor Theory	25
Facet-Free Versus Facet-Specific Measurement of Job Satisfaction	27
Variables Affecting Worker Job Satisfaction/ Dissatisfaction	28
Feedback on Performance	28
Involvement with Decision-Making	29
Stress Inoculation	29
Opportunity for Growth	31
Recognition	31
Responsibility	31
Salary	32
Achievement	32
Overall Job Satisfaction	33
Summary	34

TABLE OF CONTENTS (Continued)

Career Plans	34
Career Patterns	34
Rationale for Career and/or Job Change	36
Selected Studies Related to Career Plans of Workers	37
Summary	38
III. Methodology and Procedures	39
Development of the Instrument	39
Selection of the Population	43
Collection of Data	47
Statistical Design	48
Study Objective #1	49
Study Objective #2	49
Study Objective #3	50
IV. Presentation and Analysis of Data	52
Demographic Data	52
Teaching Experience	52
Contract Position	54
Teaching Responsibilities	55
Length of Contract	55
Program Level	57
Type of Department	57
Career Choice	57
Personal Interest	60
Parents/Relatives	60
Siblings	63
Media	63
Peer Group	63
Educational Personnel	64
Class and Work Experience	64
Role Models	66
Work Satisfaction	66
Feedback on Performance	68
Decision-Making Involvement	68
Stress Inoculation	72
Opportunity for Growth	74
Responsibility	75
Recognition	76
Salary	77
Achievement	78
Overall Job Satisfaction	78
Career Plans	79
Teaching	82
Homemaker	85
Administrator/Supervisor	86
Nonagriculture-Related Job	87

TABLE OF CONTENTS (Continued)

Education	88
Dual Role	88
Farm-Ranch Operation	89
Agri-business	89
Position Depends on Spouse	90
Summary	90
V. Summary, Conclusions, and Recommendations	92
Summary	92
Purpose	92
Methodology	92
Conclusions	99
Recommendations	107
Research Recommendations	109
Bibliography	112
Appendix A. Pilot Test Review Team for Validation of Instrument	120
Appendix B. Pilot Test Validation Form	122
Appendix C. Female Vocational Agriculture Teacher Career Choice, Work Satisfaction, and Career Plan Instrument	126
Appendix D. Male Vocational Agriculture Teacher Career Choice, Work Satisfaction, and Career Plan Instrument	131
Appendix E. Cover Letter	136
Appendix F. Nonrespondent Letter	138

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Identification of study variables and instrument items for measurement	44
2	Number and percent of vocational agriculture respondents classified by years of teaching experience	53
3	Number and percent of vocational agriculture respondents classified by position(s) for 1978-79 contract	53
4	Number and percent of vocational agriculture respondents classified by 1978-79 teaching responsibilities	56
5	Number and percent of vocational agriculture respondents classified by length of teaching contract	56
6	Number and percent of vocational agriculture respondents classified by program level(s) taught	58
7	Number and percent of vocational agriculture respondents classified by type of department	58
8	Student's "t" test summary on vocational agriculture teachers' career choice	61
9	Student's "t" test summary on vocational agriculture teachers' work satisfaction	69
10	Student's "t" test summary on vocational agriculture teachers' satisfaction for selected variables related to work	73
11	Student's "t" test summary on vocational agriculture teachers' career plans for next year	80
12	Student's "t" test summary on vocational agriculture teachers' career plans for five years from now	83

Traditional and Nontraditional Career Role
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Career Choice, Work Satisfaction, and Career Plans

I. INTRODUCTION

Background

Since the inception of vocational education as a nationally recognized program in 1917 with the passage of the Smith Hughes Act, the teacher has been identified as a key component in the delivery system of quality vocational education programs (Barlow, 1976). Consequently, the provision of a qualified labor pool of teachers equal to the demand has been a concern of educators, administrators, and lay people at the national, state, and local levels from 1917 to the present. However, the supply of teachers available for employment is affected by the negative and positive influential factors on career choice, the amount of satisfaction or dissatisfaction with teaching, and the ensuing career plans of qualified people.

The government has never legally restricted one's job, but society, in relation to sex, has. Social norms have resulted in few occupations in which men and women are employed in equal numbers--an influential factor on career choice and career plans for both sexes (Almquist, 1974). Vocational education has exemplified occupational sex segregation due to social norms since 1917, when trades and industry and agriculture were established as male intensive occupations and home economics as a female intensive occupation. Similar sex typing was transferred to the teachers employed in these programs. In 1972, a United

States Health, Education, and Welfare report showed that, in secondary school programs, 100 percent of the vocational agriculture teachers were male, 89 percent of the trade and industrial teachers were male, and 77 percent of the distributive education teachers were male, while 98 percent of the home economics teachers were female, and 72 percent of the office occupations teachers were female (Sex as a Determinant..., 1977).

The passage of Title VI of the Civil Rights Act of 1964, the Equal Employment Opportunity Act in 1972, Title IX of the Education Amendment of 1972, and Title II of the Education Amendments of 1976 emphasized the elimination of male and female sex bias and sex stereotyping in employment as well as program offerings. This has contributed to an interest in the nontraditional worker in the labor force. Vetter indicated that:

Occupational sex segregation (condition of having a very high proportion of one sex filling jobs) results from supply problems.... The supply of qualified men and women for nontraditional jobs often is much smaller than the demand. ("National Center Continues Work...", 1979)

Vocational agriculture is one of the secondary school vocational areas in which the supply of teachers does not meet the demand. In the fall of 1977, the supply of beginning vocational agriculture teachers was 89.5 percent of the demand ("Teacher Supply and Demand," 1978). In addition, Craig (1978) indicated that from 1972 to 1977 there was a need for 200 more vocational agriculture teachers who were not available. Although small, the number of women teaching vocational agriculture programs has been steadily increasing. In California the first female was graduated with a major in agricultural education in 1968,

but by 1975 there were 24 women teaching vocational agriculture (Gregg, Hampton and Jurgenson, 1975).

Recruitment, retention, and turnover of teachers has significance for the continued growth and viability of vocational agriculture programs. However, a major difference between equalizing the supply and demand for teachers in 1979, as opposed to 1917, is that in 1917 the potential labor pool consisted basically of males, whereas in 1979, due to changing societal norms and legislation emphasis, the potential labor pool consisted of males and females. There appears to be a need to examine the factors influencing career choice, present work satisfaction, and ensuing career pains as individuals are recruited, and consequently, pursue and fill traditional and nontraditional teaching roles simultaneously in vocational education. Vocational agriculture has been identified as an appropriate area on which to focus for the examination of nontraditional and traditional roles, due to the increased employment of the nontraditional individual in recent years.

Statement of the Problem

Limited research has been conducted on traditional and nontraditional career role teachers in vocational education. This study was developed to determine differences between nontraditional and traditional career role teachers in vocational education in career choice influences, work satisfaction, and career plans. This study should also provide insight into (a) career role decision-making; (b) issues in need of addressing by preservice and inservice teacher education; and (c) areas in need of further research with regard to traditional and nontraditional career role teachers.

Specifically, the study examined whether nontraditional career role (female) teachers in vocational agriculture differed significantly from traditional career role (male) teachers in the same vocational education area with regard to perceived: (a) events in career choice; (b) work satisfaction; and (c) future career plans. The sample for the study consisted of secondary male and female vocational agriculture teachers from five states (California, Florida, New York, Ohio, and Virginia).

Rationale for the Study

Secondary vocational program areas have traditionally been taught by one sex or the other--males for agricultural education and industrial education, and females for home economics education, business education, and health occupations (Sex as a Determinant..., 1977). Title VI of the Civil Rights Act, Title IX of the Education Amendment of 1972, affirmative action, recent vocational education legislation, and changing societal patterns have influenced the seeking of college degrees for nontraditional professional employment in vocational education by both males and females.

An interest in a nontraditional role is not a sufficient guarantee that an individual will complete the formal preparation required for employment. Moreover, having the qualifications needed to obtain a teaching certificate in a specific vocational area does not in itself cause one to achieve acceptance or even to seek employment in the degree area of preparation. Finally, if a teaching position is accepted in the credentialed area, job satisfaction and continued employment are

not inherent merely because the candidate exercised a nontraditional or traditional career choice and preparation.

Reider (1977) indicates that occupational sex role stereotyping affects both men and women. One way to lessen this effect, for both sexes in vocational areas, is to increase the number of female vocational administrators and qualified teachers in male-dominated courses and to increase the number of male teachers and administrators in female-dominated roles (Kane, Fernandez and Godoff, 1977). Reider (1977) stated that research is sorely needed in two areas: (1) problems facing women in choosing, entering, and progressing in careers; (2) interventions that would ease women's transition from school to work, and make their labor market experience more successful.

Career Choice

According to career development theorists Ginsberg (1972) and Super (1957), career choice is a process that spans the entire lifetime. Researchers have identified experience in courses, role models, personal interest, teachers, counselors, peers, and relatives as influential factors on career choice. According to research findings, nontraditional male and female career choices were affected most by experiences in courses, role models, and personal interest, while traditional career choices were most influenced by economics and peers and/or relatives (Sex as a Determinant..., 1977). Trigg and Perlam (1976) found the mother most influential in nontraditional career choice, but Stanley and Soule (1974) found the father more influential than the mother in nontraditional career role choices. Andberg, Follett, and Hendel (1976)

concluded that mother, father, and a role model were equally influential. Negative influences on nontraditional career choice were high school and college counselors according to Andberg, Follett, and Hendel (1976).

Research conducted on various occupations has found similarities in aspects influencing traditional and nontraditional career choice. Further research is needed, however, to obtain conclusive evidence regarding such influential events on traditional and nontraditional career choices in vocational agriculture. Knowledge about the sources of negative or positive career choice influence could advance the refinement of the recruitment focus for vocational agriculture.

Work Satisfaction

Work satisfaction is related to "the entering," as well as "the progressing" in a career (Reider, 1977). However, Quinn, Staines and McCullough (1974) have concurred that convincing evidence is not available regarding a direct-cause relationship between work satisfaction and productivity. Greene (1975) has indicated that performance causes satisfaction as opposed to the former proposition, the more widely held belief, that satisfaction causes improved performance. Porter (1961) has defined work satisfaction as "(t)he discrepancy between the person's reports of how much of a given reward there should be and how much he or she actually receives (Quinn and Gonzales, 1979:407). These rewards have been equated to intrinsic (job context) or extrinsic (job content) factors.

Rennick and Lawler (1978) indicated that men had higher levels of work satisfaction than women for the intrinsic factors of opportunity to learn new things, freedom on the job, degree of participation in decision-making, and the external factor of chance for promotion. Women tended to be as satisfied overall as men; however, this conclusion by Rennick and Lawler (1978) contradicted the findings of Hollan and Gemmill (1976) and Curry (1975), who reported less overall work satisfaction for women than men.

Evidence has shown that global job satisfaction is made up partially of independent subcomponents (Schwab and Cummings, 1975). The subcomponents vary from occupation to occupation; therefore, according to Robinson (1969), it is time for an intensive investigation of work satisfaction within single occupations as opposed to universal determinants. Aspects which have been identified by research as related to work satisfaction include recognition, regular feedback on job performance, interpersonal relationship with fellow teachers and principals, achievement, and job demands (Spivey, 1977), as well as stress inoculation (Janis and Wheeler, 1978; Briggs, 1974; Macedonia, 1969).

An inverse relationship exists between people highly satisfied with a job and job turnover (Spivey, 1977; Ginsberg and Herma, 1964). Therefore, especially in areas where persistent teacher shortages exist, insight as to similarities and differences in work satisfaction/dissatisfaction of individuals in traditional and nontraditional career roles is of importance.

Future Career Plans

Occupational decision making has been defined as an open-ended process encompassing occupational change throughout the individual's working life (Ginsberg, 1972). Occupational changes with relation to lifelong work pattern have varied for men and women in the past; however, data has indicated that women are no longer leaving the paid labor force for lengthy periods of time to have children (Rosen, 1978). Mott (1978) indicated that young women who increased their work activity could affect the future supply and demand ratio for workers. Nevertheless, future career plans have continued to be influenced by the double standard of success for males and females. Occupation excellence is not enough for women, as excellence is expected in multi-roles (Hollan and Gemmill, 1976). Zuckerman (1977) has stated that research needs to study male and female career patterns simultaneously, rather than separately with the incorporation of the male career pattern as normative, which perpetrates the status quo on traditional roles.

The high turnover rate of teachers has been influenced by competitive salaries and in some cases more attractive compensation in industry, plus promotions within the teaching profession (Wolansky, 1979). These factors were supported by Craig's (1978) research in vocational agriculture, whereby 40 percent of the persons prepared to teach in 1977 pursued farming or agricultural business careers, went to graduate school, or began work other than teaching.

Individual career plans have continued to affect the ability of a profession to have a balance between supply and demand of workers.

Teacher education, as a supplier of traditional and nontraditional workers, needs information about teachers' future career plans in order to attempt to balance supply and demand.

Objectives of the Study

The objectives of this study were as follows:

- (1) To determine whether differences exist in the factors perceived as influential in the selection of a nontraditional (female) and a traditional (male) teaching career role for one area of vocational education, i.e., vocational agriculture.
- (2) To determine whether differences exist in perceived work satisfaction for nontraditional (female) and traditional (male) career role teachers in one area of vocational education, i.e., vocational agriculture, in relation to the following
 - feedback on performance
 - involvement with decision-making
 - stress inoculation
 - opportunities for growth
 - responsibility
 - recognition
 - salary
 - achievement
 - overall job satisfaction.
- (3) To determine whether differences exist in perceived future career plans held by traditional and nontraditional career role teachers in one area of vocational education, i.e., vocational agriculture.

These objectives are transformed into null hypotheses in Chapter III.

Assumptions of the Study

The following assumptions are basic to the correct interpretation and use of this study. It was assumed:

- (1) That substantial numbers of female and male vocational agriculture teachers from five states would cooperate with the study.
- (2) That age and number of years of experience of vocational agriculture teachers would have a direct relationship in stratification of the sample for homogeneity.
- (3) That the respondents were capable of recording and assessing their perception of personal career choice influences, present work satisfaction, and future career plans.
- (4) That the study results would be generalizable to other states where nontraditional vocational agriculture career role teachers (female) had made employment inroads.

Delimitations

This study operated within the following boundaries:

- (1) The study was delimited to one vocational education service area, vocational agriculture.
- (2) The study was delimited to male and female secondary vocational agriculture teachers with less than eight years of teaching experience.

- (3) The study was delimited to males and females identified as secondary vocational teachers in the 1977-78 California, and the 1978-79 Florida, New York, Virginia, and Ohio vocational agriculture teacher directories.

Definition of Terms

Perception - the insight, power, or act of seeing into a situation or into oneself.

Secondary Vocational Agriculture Teacher - a person recognized as meeting certification requirements and credentialed to teach in exploratory, core, or specialized agriculture programs at the 12th grade level or below, via documentation of employment in the vocational agriculture teacher directory from each state.

Nontraditional Career Role - the employment in an occupational area in which 70 percent of the workers are of the opposite sex. People in these roles are also referred to as pioneers, role innovators, and atypical. In this study the female was in the nontraditional role.

Traditional Career Role - the employment in an occupational area in which 70 percent of the workers are of the same sex. "Typical" is also used to describe this role. In this study the male was in the traditional role.

Career Choice - the primary work a person is engaged in or pursuing at a given point in time.

Career Plans - the primary work that a person expected to be engaged in at given points in the future including paid employment, volunteer

work, further education, and full-time homemaker.

Job - a continuous period of service with a given employer.

Work Satisfaction - "the effective reaction to an object--namely one's job ... this reaction is a function of the extent to which the job either fulfills one's needs or facilitates the realization of one's values" (Quinn and Gonzales, 1979:410).

II. REVIEW OF RELATED LITERATURE

Introduction

Vocational education has focused on training, upgrading, and re-training of individuals for work in occupations that require less than a baccalaureate degree. The availability of qualified teachers has been a critical element in the determination of whether such vocational education programs will continue. The supply of teachers available has been influenced by the number of people entering, staying in, and leaving the profession. Consequently, three questions related to the supply of teachers are:

- (1) "What are the influential factors on career choice?"
- (2) "What are the job related components with which teachers are satisfied or dissatisfied?"
- (3) "What are the future career plans of people currently teaching?"

In vocational education the interest in overcoming the occupational sex segregation stereotype has contributed to the emergence of another question: "Do people in traditional and nontraditional career roles differ in the answers to the previous three questions?"

In an effort to provide support for the general procedures under which this study was conducted and to place this study in perspective for answering the questions above, a review of literature was undertaken. Relevant literature was reviewed for theory and supportive research on career choice, work satisfaction, and career plans. Male and female differences and similarities were focused on in each of these three areas.

Selected Theories Related to Career Choice

Career choice is part of an integral developmental process. Therefore, a literature review concerning theories on career development aids in identifying and understanding factors that influence career choice. Three of the identified categories of career development theories are developmental, personality, and sociological (Farmer and Backer, 1977).

Developmental Theory of Career Development

Developmental theorists such as Super (1957) and Ginsberg (1972) recognized career choice as a decision which is comprised of an ordered sequence of stages in the individual's life, starting at birth and ending at death. Ginsberg postulated the following: (1) the process involved in choice is believed to be irreversible in that, once a person begins a course of action such as training or education for a specific job, he/she finds it becomes increasingly difficult to change goals; (2) the actual choice arrived at through the developmental process represents a compromise between the needs and the realities of life for an individual (Ginsberg, Ginsburg, Axellrad, and Herma, 1957).

Three major phases of occupational choice encompassed Ginsberg's theory: (1) fantasy period (before age 11), in which child believes he/she can become whatever he or she desires; (2) tentative period (between 17 and young adulthood), when choices are based only on interests; and (3) realistic period (between 17 and young adulthood), when the individual looks at ways to compliment tentative choices. This last stage ends when the person selects a position or professional

specialty (Ginsberg, Ginsburg, Axellrad, and Herma, 1951).

Super (1957) theorized that people differ in abilities, interests, and personalities, which thereby qualify them for a number of occupations. In addition, the vocational preferences and competencies, the situations in which people live and work, and hence, their self-concepts, change with time and experiences, thus making choice and adjustment a continuous process. Super recognized that the nature of the career pattern is determined by the individual's mental ability, personality characteristics, opportunities to which he/she was exposed, and parental socioeconomic level. In addition, life and work satisfaction depends upon the extent to which adequate outlets are found for abilities, interests, values, and personality traits.

Super (1957) identified five stages in the career development process: (1) growth stage (birth to 14), (2) exploration stage (15 to 24), (3) establishment stage (25 to 44) - during which they may be some shifting of the career pattern, (4) maintenance stage (45 to 64), and (5) decline stage (65 to death). These stages indicate a gradual process for the development of vocational concerns. The process is begun in late childhood, increases in strength in early adolescence, and eventually culminates in adulthood with an educational and/or vocational decision.

The time frames on the identified career development stages are not static. Farmer and Backer (1977) noted that the exploratory stage is found not only at the elementary and high school level but is essential for all career changes. Researchers, according to Campbell (1974), have suggested that men's career patterns crystalize earlier

than females', in that the latter need to consider marriage plans and the parallel relevance to career plans. In partial support of this contention, Ott and Reese (1975) found that for engineering majors, 54 percent of the women and 63 percent of the men had seriously thought about the selected major by 11th grade, with an additional 19 percent of the women and 25 percent of the men crystallizing career choice in 12th grade.

Personality Theory of Career Development

Holland's (1968) personality theory on vocational choice focused on need reduction; i.e., satisfaction of interests and values, or need reduction by choice of an occupation. Holland proposed that personalities and environments can be matched into six categories: artistic, realistic, intellectual, social, conventional, and enterprising. Writers, carpenters, chemists, teachers, secretaries, and salesmen represented an example of an occupation in each category, respectively (Holland, 1968).

The two key elements which determined the proficiency of the matching process are knowledge of self and of occupations. Holland (1966) contended that the pairing of personality and environment was the main component in the process of occupational choice; however, extraneous factors could interfere with the process. For instance, economic conditions could be an insurmountable obstacle to matching one's personal orientations with work environments. This would cause the individual to retreat to the next strongest orientation. In addition, individuals that lacked knowledge of self or occupations

vacillated until a match between personality type and occupation was achieved.

Holland's theory has not addressed the role of sex difference in vocational behavior, but according to Walsh and Horton (1977) that does not mean sex differences in vocational behavior do not exist. Campbell (1974) concluded that sex differences are important and empirically based and should not be ignored. However, in a study on both sexes involved in the traditionally male fields of engineering, medicine, and ministry, the scores for males and females on Holland's Vocational Preference Inventory and Self-Directed Search were more similar than different for an occupation that requires a high degree of education (Walsh and Horton, 1977).

Sociological Theory of Career Development

Sociologists stress environmental determinants in the career development process (Osipaw, 1973). Congruent with sociology's stress on the force of the social structure as an occupational choice determinant, it is contended that "accident" is the deciding factor in determining the occupation of most workers. The accident of birth establishes family, race, nationality, social class, residential district, and educational and cultural opportunities (Caplow, 1954; Miller and Form, 1951).

Hollingshead's (1949) research on Elmtown youth supported the contention that one inherits the occupation of one's parents. Ott and Reese (1975) found that traditional and nontraditional career role engineers had very similar family backgrounds. Ziegler (1967) found

that, for teachers, men were recruited equally from all social strata and that women were drawn from middle and upper classes.

Farmer and Backer (1977) stated that sociologists emphasize environmental intervention at an early age via classroom experiences, work experiences, and exposure to role models in order to facilitate equal opportunity in personal career choice by decreasing the proportionate influence of innate inheritance.

Summary

Psychologists look at determinants of occupational choice within the person but sociologists are concerned with external determinants of occupational choice, i.e., how the social group affects career development (Roe, 1968). Developmental and personality theorists do not ignore environmental factors in career choice; they simply have a different emphasis than do sociologists (Osipaw, 1973).

Variables Influential on Career Choice

Career choice is thought to be an ongoing process influenced by many factors over a period of time. Identification of the key factors and resulting direction of influence on an identified career is of importance in the recruitment of workers.

Personal Interest

Personal interest can be classified into two categories with regard to career choice, expressed interest and measured interest. Problems related to the elimination of sex bias, in tests and assessments focused

on choosing a career, led to a renewed interest in the self-estimate of interests and abilities. Wiggins and Westlander (1977) found the expressed vocational interests of high schoolers to be more predictive of employment after graduation than inventories or measured interests for the Vocational Preference Inventory. Gade and Solia (1975) concurred with Wiggins and Westlander's finding, and said that merely asking people what they plan to do may be a valid way to predict occupation choice, i.e., expressed personal interest is a strong influence on the final choice. Koger (1978) stated that expressed personal interest is the strongest influence on occupational choice. Lewis and Kaltreider (1976) concurred with the positive influence of expressed personal interest on career choice for nontraditional, as well as traditional career role choices. In a 1976 study of 128 Indiana high school students, expressed personal interest was identified as very influential for nontraditional career role choices, but not for traditional (Sex as a Determinant..., 1977). Interest tests were listed as influential to career choice by women in 1959 but not in 1974, when expressed personal interest was identified as influential (Sherman and James, 1976).

Media

Books and pamphlets have provided occupational information to the majority of students. Pamphlets are particularly helpful to people in lower socioeconomic levels, to women, and to nonwhites. Books were rated third in total career choice influence (Thompson, 1966). Fielstra (1955) reported, however, that media was a positive influence only due to the emphasis placed on need for teachers at the time of investigation.

Peer Group

Friends have been of importance in influencing occupational choice. Sherman and James (1976) found that friends were listed as most influential in career choice for college women in 1974; however, this was not found to be true in a parallel study conducted in 1959. Indiana high school students with traditional career choices also listed friends as a positive influence on career choice. However, Lewis and Kaltreider (1976) found that male high school students were critical of both their male and female peers who considered nontraditional career roles, thus being a negative influence on career choice.

Educational Personnel

Lungstrum's (1974) study confirmed that school-based sources of occupational information have different effects on various groups of students. Teachers appear to influence positively the occupational choice of the students that are enrolled in their own curriculum (Lungstrum, 1974). McEwen (1975) confirmed that faculty was a positive influence, especially for nontraditional choices. Two hundred and thirty students, enrolled in education courses at the University of California, rated faculty as the number one influence on their career choice (Fielstra, 1955). Sexton (1977) found that female role innovators identified male faculty members as more supportive of a nontraditional career choice than female faculty members.

Counselors have been viewed negatively or as noninfluential with regard to career choice. Male and female veterinary science majors listed high school and college counselors as most discouraging of

of career choices (Andberg, Follett, and Hendel, 1976). Houpt and Calhoun (1977) concurred, in a separate study of women in veterinary science, that counselors thought such fields were unsuitable and unrealistic choices. In engineering, however, a majority of the women indicated that counselors offered mild support to career choice, while one-third of the males and females indicated that counselors were not aware of their interests (Ott and Reese, 1975).

Class and Work Experiences

Work experience has a positive influence on career choice, especially for nontraditional career choices (Sex as a Determinant..., 1977; Brito and Junenius, 1978). Wood (1978) found that for older students at SUNY College, Old Westbury, personal experiences were rated number one as far as positive influence was concerned.

High school courses were spoken of favorably with regard to career choice by high school nontraditional career role seekers (Sex as a Determinant..., 1977) and college women in 1974 (Sherman and James, 1976). However, Padgett (1978) found that both job and curriculum experiences were rated as "most influential" on career choice. Co-curricular activities were listed as influential on career choice by college women in 1959 (Sherman and James, 1976).

Parents and Relatives

Research has indicated conflicting results with regard to parental influence on career choice. Sherman and James (1976) and Andberg, Follett, and Hendel (1976) found both parents were positively associated with traditional and nontraditional career choice selection for males

and females. Of the two parents, the mother was the strongest influence on nontraditional female choices. However, Stanley and Soule (1974) found the father was the stronger positive influence for girls, while Trigg and Pehlman (1976) found this influence related to the mother. Relatives, in general, were identified by traditional career choice high school students as important to the selection made (Sex as a Determinant..., 1977).

Role Models

Research has shown that role models are important in nontraditional career choices. Indiana high school students who selected nontraditional career roles in 1974 categorized role models as one of the top three influences on their choice. Females pursuing veterinary medicine indicated that a male veterinarian was encouraging with regard to career choice (Andberg, Follett, and Hendel, 1976). Fielstra (1955) in studying career choice influence of education majors found role models listed frequently as a positive influence.

Summary

Research findings have shown that various aspects influence males and females in career choice whether traditional or nontraditional. Personal interest, media, peers, teachers, counselors, class and work experiences, role models, as well as parents and relatives appear to be worthy of inclusion in an assessment of career choice influences.

Work Satisfaction

The publication Work in America (1975) indicated a concern with worker satisfaction as an issue related to personal and economic cost of worker alienation, worker disaffection, and dissatisfaction with work. An interest in the topic of job satisfaction is not new, as Hoppcock began research on the topic in the mid-1930s. A voluminous amount of material has been published; however, Quinn and Gonzales relate: "Although several widely accepted theories of job satisfaction exist, few, if any can justifiably claim to be a well developed powerful theory of job satisfaction." (1979:407).

Nevertheless, vocational education is concerned with preparing people for work. One of the goals (individual outcome) connected with this mission is "the skills and training that lead to satisfactory employment" (Quinn and Gonzales, 1979:406). This satisfactory employment is of concern for the teachers, as well as students in vocational education and is more intricate than a "yes" or "no" answer to "Do you like your job?"

The review of literature will focus on four theories of job satisfaction in building a premise of what it is and is not. Facet-free versus facet-specific measurement of job satisfaction will then be addressed and studies relating variables contributing to job satisfaction/dissatisfaction will be documented.

Job Satisfaction Theories

Need Fulfillment Theory

Maslow's (1970) needs hierarchy formed the foundation for the need fulfillment theory of job satisfaction. The five needs--physiological, safety, belonging and love, esteem, and self-actualization--were arranged in ascending order. The strength of a need relied on the place in the hierarchy and degree to which all lower needs had been met. Job satisfaction was a result of the degree to which aspects in the work environment fulfill needs at or below the worker's level in the hierarchy. Unmet needs produce tension and call for action to reduce tension and restore the equilibrium. Needs at one level are decreased as met, with the result that the need at the next level is increased. However, in recent years Maslow has advocated a two-level hierarchy (Steers and Porter, 1975). Due to the need for longitudinal studies, little specific research has been done on the need fulfillment theory.

Discrepancy Factor Theory

In the discrepancy factor theory, satisfaction is defined as the difference between the real rewards an individual receives and "some other" reward level. The definition of "some other" varies with individual theorists. Quinn and Gonzales (1979) indicated that Locke's theory stresses perceived discrepancy between what one desires from a job and what is perceived as being offered, while Porter's theory considered the discrepancy between the person's report of how much reward

should be offered and how much is actually received. Measuring job satisfaction for the discrepancy theory requires the researcher to view each facet of a job.

Equity Theory

Adams (1963) postulated that job satisfaction, for the equity theory, evolves via an individual's perceived input-outcome balance or the proportion of what is put into the job relative to what is received from it. A comparison with relevant others is used to assess equity or inequity. Inequity of rewards has been associated with dissatisfaction. Over-reward leads to feelings of guilt and under-reward to feelings of unfair treatment. Equity has been equated with satisfaction. Inputs relate to skills, intelligence, seniority, education, or what is brought to the job by the individual. Outputs refer to what the individual receives from the job such as pay, intrinsic rewards, satisfying supervision.

Two-Factor Theory

Herzberg contended that satisfaction and dissatisfaction operate on two separate continuums (Herzberg, Mausner, and Synderman, 1959). The absence of dissatisfaction has been related to fulfillment of pain avoidance needs through provision of hygiene factors on the job. Satisfaction has been related to fulfillment of psychological growth needs through the provision of motivation factors. Hygiene factors included supervision, relations with co-workers, company policy and administration, status, good working conditions, and security. Motivation factors

encompassed achievement, advancement, possibility for growth, responsibility, and challenging work. Intrinsic aspects of the job have been associated with motivation, and extrinsic aspects have been associated with hygiene factors.

Additional research has produced criticism and questioning of Herzberg's theory as achievement and recognition have been identified with both dissatisfaction and satisfaction. Data do not support the dichotomy of satisfaction and dissatisfaction as proposed by Herzberg (House and Wigdor, 1975).

Considering the various theories, Quinn and Gonzales have summarized what job satisfaction is and is not:

... if job satisfaction is defined as an attitude, it is as a consequence or affective reaction to an object--namely one's job. There is considerable agreement that this reaction is a function of the extent to which the job either fulfills one's needs or facilitates the realization of one's values. Major theories of job satisfaction differ principally in how they conceptualize these processes of fulfillment or realization. These theories concur, however, in not treating job satisfaction as (1) a concept covering all psychological reactions in work environments, (2) a residual category encompassing everything about jobs that has traditionally been the concern of labor economists or union negotiations, or (3) teachable moments. (1979:410)

Greene (1975) specified that research supports the "performance causes satisfaction" proposition rather than the more widely held "satisfaction causes performance" proposition. For the latter proposition, inadequate performance may be affected by lack of direction and not satisfaction. According to the former proposition, performance yields satisfaction through an intervening variable, such as pay for performance, and thus satisfaction is the function of the performance related to the variable pay. Milikin (1975) supported Greene's

postulation, but in addition, concluded that the basic assumption between job satisfaction and performance has been revised. The revised basic assumption now states that there is a relationship between job satisfaction and performance under certain conditions. However, Lawler indicated that "because of the interest in the quality of 'the working life,' job satisfaction is worthy of understanding and increasing even if the satisfaction performance relationship does not exist" (1973:62).

Facet-Free Versus Facet-Specific Measurement of Job Satisfaction

The distinction between overall satisfaction (facet-free) and facet-specific satisfaction was also of importance to Lawler, who defined facet satisfaction as "peoples' affective reaction to particular aspects of their job" and overall job satisfaction as "a person's affective reactions to his total work roles" (1973:64).

Seashore and Taber (1975) concluded that facet-specific methods of measuring job satisfaction allow the investigator some control over the range of facets to be included. This provides a base for comparability among respondents and a more confident linkage between the reality of the job measurement and response obtained. Schwab and Cummings (1975) have stated that there is evidence that global job satisfaction is composed at least partially of independent subcomponents. Therefore, Quinn and Gonzales (1979) recommended the use of both facet-free and facet-specific measurement of job satisfaction, if one is able to devote the time. If one cannot spend much time measuring job satisfaction, a facet-free measure should be used. Gaydos

(1978) concluded that all job satisfaction measurements should include both facet-free and facet-specific measurement.

Variables Affecting Worker Job Satisfaction/Dissatisfaction

Herzberg used job context variables (motivators) to describe intrinsic outcomes or rewards with regard to satisfaction and job content (hygiene factors) to describe extrinsic rewards (Schuler, 1975). In the research reviewed, extrinsic outcomes are related to facets such as promotion; feedback from one's boss, peers, or students; pleasant working conditions; recognition for good work; and pay. Intrinsic outcomes are related to variety, challenge, responsibility, participation, sense of accomplishment, advancement possibilities, and achievement.

Lofquist and Dawis (1975) have specified that dichotomizing the identified facets adds little descriptive information and, therefore, have advocated the description of job related variables in terms of a specific job. The former conclusion is based on the fact that occupational groups vary in their work values and level of satisfaction (Quinn, Staines and McCullough, 1977). Moxley (1977) has indicated that, for teachers, responsibility and possibility for advancement relate to extrinsic outcomes, not intrinsic; and interpersonal relations become a motivator, not vice versa.

Feedback on Performance

Adequate resources, well-defined responsibilities, competent supervisors, enough information for task completion, authority for the job,

and perception of work results, were identified by Quinn, Staines, and McCullough (1977) as related to job satisfaction. Lawler (1973) indicated that one of the three things that a job must have is meaningful feedback. This feedback arouses higher level needs and creates conditions so that the person will come to expect that good performance will lead to intrinsic rewards, and consequently, satisfaction. Ellenburg (1972) found that in schools with an open climate (feedback), the teachers were highly satisfied. The teacher relationship with the principal was the most significant factor related to satisfaction, however. In addition, vocational agriculture teachers have been found to be leaving the profession because of administrative concerns (Knight and Bender, 1979).

Involvement With Decision-Making

Involvement with decision-making related to one's work gives a feeling of having some control over one's environment, as well as a feeling of value. This aspect relates to participation, a job context intrinsic outcome. In a study of college teachers in Utah, Segmiller (1977) found that all teachers were dissatisfied with decision-making involvement, i.e., felt lack of it. In a national study of all workers, Rennick and Lawler (1978) found men more highly satisfied with decision-making involvement than women.

Stress Inoculation

Janis and Wheeler (1978) indicated that stress inoculation is realistic information which prepares an employee for a job. Stress

inoculation begins during the job interview and continues throughout employment. Stress inoculation counteracts feelings of helplessness and hopelessness, and results in a longer span of continued employment for an individual. Research on men has shown that group bonds are important sources of social and technological support, which ease the newcomer's initiation to both the job demands and the work group (Terborg, 1977).

Briggs addressed stress inoculation for the nontraditional career role holder saying:

Being one of the first to cross sex barriers in employment takes the kind of encouragement with which not everyone-- male or female--is endowed. It is not simply a matter of finding whether or not one can do the job, on trial in a highly visible and often publicized situation; sometimes ... it means being prepared to cope with a(n) ... social situation, where evolved customs, language, and habits have been predicated on a one-sex grouping and with the individual reactions ... of ... whose group has been invaded. (1974:14-15).

Schultz (1977) found that women felt more job pressure than men. Part of this feeling may have been due to the double standard of success for females and males. Occupational excellence has not been enough for women, as excellence is expected in multi-roles (Founce, 1977). Macedonia (1969) found that where employees were provided a realistic picture prior to employment (including difficulties), job expectations moved to more realistic levels, which in turn were more easily met. Consequently, there was more satisfaction, which reduced turnover. According to Terborg (1977), research is incomplete on the importance of and formation of group bonds among newcomers and incumbents.

Opportunity for Growth

Opportunity for growth has been referred to as the availability of events that allows the individual to continue the process of "becoming." Teachers in higher education were satisfied with opportunity for growth (Moxley, 1977; Segmiller, 1977). Rennick and Lawler (1978) found that nationally, men were more satisfied with the opportunity to learn and try new things than women were. Knight and Bender (1979) found that vocational agricultural teachers were leaving the profession because of dissatisfaction with inadequate advancement opportunities.

Recognition

Recognition has been defined as some act of awareness (praise or blame) by significant others towards an individual. Recognition is an extrinsic variable connected with job content. Higher education teachers felt highly satisfied with recognition (Moxley, 1977; Segmiller, 1977); however, for occupational evaluators this concept contributed to dissatisfaction (Baker, 1978).

Responsibility

Responsibility has been recognized as a term used to describe the duties for which one is answerable on a job. Too little or too much responsibility can cause dissatisfaction. Herzberg (1959) defined responsibility as an intrinsic factor; however, Moxley (1977) related that, in teaching, responsibility should be regarded as an extrinsic factor because of the nature of the work. Segmiller (1977) found

college teachers were satisfied with regard to responsibility, while Moxley (1977) found that a similar group of educators was dissatisfied. Occupation evaluators, as a profession (Baker, 1978), and elementary and secondary teachers in Canada (Holdaway, 1978) indicated satisfaction with the responsibility factor. With regard to teaching responsibilities in vocational agricultures, Gregg, Hampton, and Jurgenson (1975) indicated that regional supervisors, administrators, and department chairpersons stressed that the nontraditional career role teacher's talents should not be limited to ornamental horticulture and related fields.

Salary

Salary has been defined as all monetary compensation (expected and unexpected) from a job. Satisfaction with salary was found to be high for traditional career role workers in industry as compared to nontraditional career role workers--male and female (Schrieber, 1979). However, salary was a source of dissatisfaction for teachers in higher education (Segmiller, 1977). Knight and Bender (1979) found that vocational agriculture teachers were leaving the profession because of dissatisfaction with salary.

Achievement

Achievement is defined as seeing the results of one's work, and thus, is classified as a job context or intrinsic factor with relation to satisfaction (Herzberg, Mausner, and Synderman, 1959). Studies by Moxley (1977) and Segmiller (1977) on teachers in higher education

indicated a high level of job satisfaction for achievement. However, Knight and Bender (1979) recognized that vocational agriculture teachers were leaving the profession because of dissatisfaction with students' lack of completion of assigned work and disinterest, i.e., a correlation with seeing the results of one's work negatively. Milikin (1975) explains that the difference between teachers on achievement satisfaction may relate to respondent populations and the occupational level within a hierarchy.

Overall Job Satisfaction

Overall job satisfaction is related to the job as a whole rather than individual facets. Quinn, Staines, and McCullough (1977) and Rennick and Lawler (1978) found that nationally men and women were equally satisfied. Hollan and Gemmill (1976) indicated that women were less satisfied. Glenn, Taylor, and Weaver (1977) and Quinn, Staines, and McCullough (1977) found that age and satisfaction have a direct relationship: the older the worker, the higher the level of job satisfaction.

Kilpatrick, Cummings and Jennings (1964) indicated that one cannot overlook different work values for men and women--job security, self-advancement, self-discrimination for men; and personal relationships, worthwhile activities, and good supervision, for women. These differences may influence the meaning of overall job satisfaction. However, Curry (1975) refuted the difference and stressed that women work for the same intrinsic rewards as men.

Summary

Job satisfaction has been identified as an affective reaction to one's job in the fulfillment of one's needs or realization of one's values. Facets that contribute to satisfaction vary for occupation and job level. However, there is evidence that responsibility, opportunity for growth, recognition, achievement, salary, responsibility, stress inoculation, feedback, and involvement in decision-making are appropriate to include in an assessment of work satisfaction.

Career Plans

Career development does not stop with the initial choice of a career in early adulthood. Changing jobs within an occupation, as well as changing occupations are a part of the career development process that continues until death. In fields which have a deficient supply of teachers, such as vocational agriculture, knowledge on the career pattern of workers, and the reasons for job changes can serve as a foundation for investigating the long-range goals or career plans of workers.

Career Patterns

Developmental career choice theorists Ginsberg (Ginsberg, Ginsburg, Axellrad, and Herma, 1951) and Super (1957) identified career development as an ongoing process. Ginsberg (1972) has recently revised his theory so as to view career decision-making as an open-ended process that can coexist within the individual's working life. Super (1957) has identified a career as a sequence of occupations within a person's

life. Seven categories of life patterns have been identified for women:

- (1) Stable Homemaking Career--homemaking is the major activity.
- (2) Conventional Career--working a few years after a general education and then leaving the work force to become a full-time homemaker.
- (3) Stable Working Career--being employed in a career becomes life's work.
- (4) Double-Track Career--continuing a paid career while married.
- (5) Interrupted Career--working and then taking time out for marriage and family, later returning to the labor market.
- (6) Unstable Career--fluctuating back and forth between working and homemaking because of irregular economic conditions.
- (7) Multiple-Trial Career--holding a succession of unrelated jobs with no stability or sense of life work.

Societal norms in the past have not identified the first two life patterns as common for men. However, for men the interrupted career pattern has been equated with working, military service, and then, working again. Kohen and Shields have concluded: "When earnings or status is the criterion, young white veterans were found to have paid a substantial cost for their military service in terms of foregone civilian work experience" (1977:185). The same argument has been postulated for women in the interrupted career pattern (Rosenfeld and Sorenson, 1976).

Women's career patterns have changed. Data has shown that women are no longer dropping out of the labor force for extended periods of time (the interrupted career) (Rosen, 1978), and work is no longer a transitory facet between school and marriage. Wolkon (1972) found that women in pioneer career roles had a higher desire to work than women in

traditional career roles. Therefore, the supply and demand patterns for a specific occupation may be different in the future (Mott, 1978). As a consequence of societal change in work roles and age of retirement, a man's employed work life has decreased in number of years since 1900 and a woman's has increased (Levitan, Mangum and Marshall, 1976). Sexton (1977) indicated that the turnover rate for men and women is comparable.

Rationale for Career and/or Job Change

Flippo (1976) referred to turnover as the movement in and out of an organization by the work force. This movement, in the case of the individual, is called career and/or job change. An excessive movement has been recognized as undesirable and expensive for the organization and the individual. However, for the organization some turnover is desirable (Mangione, 1973).

Career change is an ongoing process, not a desertion of all that was previously accomplished. Two dimensions interact in determining a work history--self as a source of pressure in motivation for job change, and environment as a basis for job change (Heddesheimer, 1976). Three types of factors in the environment contribute to job change: (1) organization-wide factors--pay, promotion; (2) immediate work environment--superivisng style, work unit size; and (3) job content factors--task repetitiveness, role clarity (Porter and Steers, 1975).

With regard to individual factors, age has been inversely related to job change, as well as to job satisfaction. Extreme personality types are more likely to change jobs. Parnes (1973) has found that for

all ages of men, the more satisfied they are with their jobs, the less likely they are to leave. For men the best predictor of job change has been found to be dissatisfaction with pay; for women, the dissatisfaction with hours, availability of transportation, and physical surroundings have been found to be the best predictors of job change (Mangione, 1973).

Selected Studies Related to Career Plans of Workers

Level of occupational aspiration was found to differ for men and women in a study by Esposito (1977). Women had a high motive for avoiding success which related to low aspirations, while men had a high motivation for success, as well as aspirations. In a study of nontraditional men and women career role holders, the men aspired to management positions, but the women did not indicate high career expectations (Schrieber, 1979). Barnett (1975) indicated that because of the socialization process, many women are not in prestigious positions because they do not aspire to hold such positions, and not because their aspirations have been thwarted. In other words, men learn to prefer prestigious positions and women learn to avoid such positions.

For career job changes, Anderson and Mark (1976) found that the teaching profession was characterized by a large number of people who tended to teach for a few years and then quit or teach sporadically. The turnover was higher for young teachers and females. Knight and Bender (1979) found that 50 percent of the vocational agriculture teachers in Ohio had left the teaching profession before having taught three years.

With regard to types of jobs taken in place of teaching, Wolonsky (1979) stated that Industrial Arts teachers either entered administration or industry. Craig (1978) found that college graduates in vocational agriculture chose entrance into graduate school, farming, agricultural business careers, or other work 40 percent of the time as compared to teaching. This trend perpetuated the deficit supply of teachers. Knight and Bender (1979) recommended that long-range goals of vocational agriculture undergraduate students and teachers be examined, as there has been a documented shortage of agriculture teachers since 1967.

Summary

Career change is an integral career development process and is caused by personal and environmental factors. Extensive turnover is undesirable; but in order to gain insight into plans for a career change, a study of long-range occupation goals is desirable. Factors that appear to be appropriate for inclusion in addressing the subject of future career plans are: continuation in teaching, business aspirations; homemaker role, further educational plans, administrative aspirations; and occupational aspirations in an unrelated area.

III. METHODOLOGY AND PROCEDURES

This research is an investigation of the reported career choice influences, work satisfaction, and future career plans of vocational agriculture teachers. This research study was designed to determine if being in a nontraditional (female) or traditional (male) career role contributed to significant differences between perceived career choice influences, work satisfaction, and career plans. This study examined the reported perceptions of both female and male vocational agriculture teachers from a minimum of one state in each of the four national regions identified by Craig (1978). The following summary of procedures about the development of the instrument, population selection, collection of data, and statistical design delineates the specific steps taken during the investigation of this study.

Development of the Instrument

An instrument was required for data collection in this study. The purpose of the instrument was to obtain information related to vocational agriculture traditional and nontraditional career role teachers' perceptions of influences in career choice, work satisfaction, and career plans for one year and five years into the future.

In reviewing related studies applicable instrumentation was not found. It thus became necessary to develop an instrument to achieve the study objectives.

The instrument used in the present study was divided into four basic sections--demographic data, career choice, work satisfaction, and career plans. The instrument was developed with support from a number

of sources. The Review of Related Literature identified studies on one or two of the classifications of independent variables, but never all three. The literature review also did not identify all three independent variables for the target group in this research--vocational agriculture teachers.

For career choice the instruments developed and tested in the studies by Andberg, Follett, and Hendel (1976) on male and female veterinary science majors and Ott and Reese (1975) on males and females in engineering; plus the study, Women in the University of Chicago (1970) and research findings, served as the basis for the draft of the initial instrument for this study. Items selected from these studies for inclusion related to parents/relatives, personal interest, siblings, peer group, educational personnel, media, role models, and class and work experience.

For the variable work satisfaction the Job Diagnostic Survey (Dunham, 1976), Job Description Index (Cummings, 1976), Purdue Teacher Opinionnaire (Murmane and Phillips, 1977), Vroons--Participation in Decision-Making and Attitude Towards Job (Hollan and Gemmill, 1976), and Faculty Job Satisfaction/Dissatisfaction Scale (Wood, 1976) were examined. All of the aforementioned instruments have an established reliability and validity coefficient. On the basis of the Review of Related Literature and the review of the instruments, the following factors were included in the instrument: feedback on performance; involvement in decision-making; stress inoculation; opportunity for growth; recognition; achievement; responsibility; salary; and overall job satisfaction.

Career plan instruments used in the studies by Bulcock (1973), Basualdo (1975), King (1974), and Sarvas (1976) on secondary and college women faculty members, plus Craig's (1978) study on supply and demand of vocational agriculture teachers and findings in related literature were reviewed for valid instrument items. The initial instrument included factors related to career plans for teaching, education, homemaker role, nonagriculture work, agri-business employment, administration, farming, dependence on spouse's employment, and a dual role. The instrument asked for respondents' perception of their career plans in relation to next year and five years in the future. Short- and long-range career goals were of interest in discovering whether the high turnover trend of secondary vocational agriculture teachers would continue (Knight and Bender, 1979; Anderson and Mark, 1976).

Questions for inclusion in the demographic section of the instrument were selected for a description of the population of study. The instrument asked for demographic data on length of teaching experience, contract position, level taught, teaching responsibilities, contract length, and number and sex of teachers in respondent's vocational agriculture department. With the exception of the demographic data, the response choices for career choice, work satisfaction, and career plans were built around the Likert-type rating scale, which is assumed to yield equidistant interval data. A Likert-type scale was of value in this research, as it allowed more detailed statistical analysis and description of identified significant differences.

Scores assigned to the dependent variables by the respondents for this research were used to denote the level of influence for each item

in the section on career choice, the level of satisfaction for each item in the section on work satisfaction, and the level of probability for each item in the section on career plans. Respondents were asked to evaluate each item on a modified Likert-type scale. A six-point scale was used for variables reflective of career choice with number "1" indicating the item was "not applicable" to the respondent and the number "5" indicating that the item represented a factor of "very positive influence" to the respondent. For work satisfaction items, a five-point scale was used, with number "1" designating that the respondent was "very dissatisfied" with an item, and the number "5" designating that the respondent was "very satisfied" with the item. Career plans required two responses for each item, related to next year and five years into the future. A number "1" on the five-point scale indicated that the item was a "strong improbability" for the respondent, and a number "5" indicated that the item was a "strong probability" for the respondent.

The next step in the design process involved a review of the initial instrument for the purpose of evaluating format, content, and clarity. The review team consisted of eight undergraduate Agricultural Education students and six graduate students in the Vocational-Technical Division at Oregon State University. Males and females were equally represented in the review process (see Appendix A). A response revision form was used by the review team (see Appendix B). Input from the review team resulted in the addition of "FFA" under career choice, the rewording of an item on course preparations under work satisfaction, the increased brevity of the instrument directions, and the cover letter

clarification of a male and female focus for the study.

Identification of male and female respondents was central to the hypothesis tested in this study. In order to avoid bias by having respondents identify male or female, two identical instruments were printed, with one exception. Females received an instrument with enclosed section headings, and males received an instrument with open section headings (see Appendices C and D). Table 1 identifies the study variables and the specific question designed to measure each variable in the final research instrument. Related items within each section were randomly ordered rather than grouped, in order to avoid a set response pattern.

Selection of the Population

The purpose of this study was to assess the traditional and non-traditional career role teacher in vocational agriculture on career choice influence, work satisfaction, and career plans. This study was limited to teachers in programs in vocational agriculture at the 12th grade level and below. Therefore, identification of states in which the nontraditional (female) career role teacher had made employment inroads into vocational agriculture programs at 12th grade level or below was of importance to the testing of the hypotheses. Employment inroads were considered to have been made when 20 or more female secondary vocational agriculture teachers had been employed in a state.

Initially, The National Directory of Vocational Agriculture Teachers 1977-78 was examined for states that might meet the employment inroad criterion and thus serve as a basis from which to draw the

Table 1. Identification of study variables and instrument items for measurement.

Variables	Measure
Sex:	
Female	Appendix C*
Male	Appendix D*
Demographic Data	Questions 1, 2, 3, 4, 5, 6
Career Choice:	
Personal Interest	Questions 7, 19
Parents/Relatives	Questions 8, 9, 20
Siblings	Question 10
Educational Personnel	Questions 11, 12, 21
Peer Group	Questions 13, 14
Media	Question 15
Class and Work Experiences	Questions 16, 17, 18, 23
Role Model	Question 22
Other	Questions 24, 25
Work Satisfaction:	
Feedback on Performance	Questions 26, 45
Involvement With Decision-Making	Questions 27, 41
Stress Inoculation	Questions 28, 32, 38, 42
Opportunities for Growth	Questions 29, 35, 39
Recognition	Questions 30, 31, 37, 43
Achievement	Questions 34, 46
Responsibility	Questions 33, 36, 44
Salary	Questions 40, 48a, 48b
Overall Job Satisfaction	Question 49
Career Plans:	
Teaching	Questions 50, 58
Homemaker	Questions 52, 60
Administrator/Supervisor	Questions 53, 61
Nonagriculture Job	Question 54
Education	Questions 56, 62
Dual Role	Question 57
Farm Operation	Question 59
Agri-business	Question 51
Depends on Spouse	Question 55
Other	Questions 63, 64

*Male and female subjects received identical instruments with one exception. Females received an instrument with enclosed section headings. Males received an instrument with open section headings.

population for the study. A phone call for confirmation on the number of females teaching vocational agriculture in 1978-79 was made to Vocational Agriculture State Specialists in states having ten or more identified female vocational agriculture teachers at the secondary level in 1977-78. As a result of the phone calls, California, Florida, New York, Ohio, and Virginia were identified as the states which met the employment inroad criterion of 20 or more female vocational agriculture teachers. In this study each of the four national regions was represented by a minimum of one state (North Atlantic, New York; Central, Ohio; Southern, Florida and Virginia; and Pacific, California).

Vocational Agriculture Specialists in each of the five states were also contacted by letter. Verification of cooperation with the study was equated with the receipt of the names and addresses of male and female vocational agriculture teachers at the 12th grade level or below. Each state specialist was asked to identify the names of the female teachers in the directory sent. Upon receipt, the male and female names were separated and assigned numbers. A random-numbers table was used to select the participants from each state.

The population of the study consisted of 186 identified female secondary vocational agriculture teachers, i.e., California, 54; Florida, 32; Ohio, 44; New York, 30; and Virginia, 26; as well as 379 male secondary vocational agriculture teachers, which was twice the number of females in the study. The larger number of males was selected in order to stratify the study sample for hypothesis testing to teachers who had taught seven years or less. Stratification by years of teaching experience aided in the elimination of experimental

bias associated with varied lengths of teaching experience. Seven years of experience was selected as the criterion since few State Vocational Agriculture Specialists identified females with more than seven years of teaching experience.

A total of 420 instruments--135 female and 285 male--were returned for a response rate of 74.3 percent which according to Wentling and Lawson (1975) is acceptable for research purposes. An additional 18 instruments were returned twice by respondents. Upon receipt the instruments were sorted according to male and female respondents. Three instruments from the female respondents were eliminated from the sample due to incompleteness of an entire section, and six were eliminated due to the respondents' having taught eight or more years. Four instruments from the male respondents were eliminated due to the teaching of adult classes only; 130 were eliminated due to their having taught eight years or more; and four were eliminated due to lateness of return. After stratification of the respondents according to sex and seven years or less of teaching experience, the population was reduced to 122 females and 147 males, who were assigned another number. Using the second number assigned and a random-numbers table, the population for this study became 95 percent of the nontraditional career role vocational agriculture teachers with seven years or less of vocational agriculture teaching, plus an equal number of traditional career role vocational agriculture teachers with seven years or less of vocational agriculture teaching experience. The actual population for testing the hypotheses was 116 female and 116 male vocational agriculture teachers at the 12th grade level or below from the states of California, Florida, Ohio, New York, and Virginia.

Collection of Data

Several steps in the collection of data helped to ensure the acceptable rate of return of 74.3 percent. Initially, the investigator contacted the State Vocational Agriculture Specialist in California, Florida, Ohio, New York, and Virginia and requested a copy of the current directory of secondary vocational agriculture teachers, plus identification of the female teachers. Directories for 1978-79 were available for all the states except California at the time of sample selection and mailing of the instrument. The 1977-78 California Vocational Agriculture Teacher Directory was used for sample selection. However, final response rate for California was maintained at 70.6 percent.

Response was further motivated by the printing of a three page instrument (see Appendices C and D) on 11 x 17 green paper folded in the center. The format of the instrument eliminated the need for staples and an envelope. The return address and stamp were on the fourth side of the instrument. The instrument was self contained with regard to directions, responses, due date, and return mailer. A number code, representing the subject's state, random number assignment, and sex, was written on each instrument for identification of nonrespondents. As an economy measure the investigator used the bulk mailing rate for the first mailing.

February 9, 1979 was selected for mailing the instrument and cover letter to avoid the end of a major grading period for teachers. The cover letter (see Appendix E) explained the focus and purpose of this study, the importance of participant's contributions, and procedures for

completing and returning the instrument. Confidentiality was assured.

A major motivating factor in the 74.3 percent response rate was the attachment of a quarter to the cover letter for a cup of coffee while completing the instrument. A copy of Oregon State University letterhead was used for the Xeroxing of the cover letter. The investigator had an envelope printed with a return address. A typed label for each person in the sample was attached.

A follow-up letter (see Appendix F) plus a second instrument was sent to nonrespondents two weeks after the first mailing. Weather conditions and the bulk mail rate were an impediment in the delivery of the first instrument. Therefore, individual stamps were used on the following letter to nonrespondents.

Precaution was taken to protect the human subjects by not requesting names on the instrument. However, respondents were asked to sign their names if a summary of the study was desired. Ninety-five percent of total respondents signed their names.

All responses were hand recorded on computer scoring sheets. Computer cards were key punched for each of the 232 respondents randomly selected for the stratified sample based on sex and years of teaching experience. The accuracy of the information on the computer cards was verified.

Statistical Design

Three objectives were identified in relation to the purpose of this study. The first objective was to determine whether traditional and nontraditional career role vocational agriculture teachers agree on

career choice influences. The second objective was to determine whether nontraditional and traditional career role vocational agriculture teachers agree on work satisfaction/dissatisfaction related to feedback on performance, involvement with decision-making, stress inoculation, opportunities for growth, responsibility, achievement, recognition, salary, and overall job satisfaction. The third objective was to determine whether career plans for next year and for five years in the future were the same for traditional and nontraditional vocational agriculture career role teachers.

Using the Student's "t" statistic the three objectives translate into the following hypotheses:

Study Objective #1

H₁ There is no significant difference in the factors perceived as influential on career choice for nontraditional and traditional career role vocational agriculture teachers.

Study Objective #2

H₂ There is no significant difference in perceived work satisfaction for traditional and nontraditional career role vocational agriculture teachers in the areas of:

- feedback on performance
- involvement with decision-making
- stress inoculation
- opportunities for growth
- achievement

- recognition
- responsibility
- salary
- overall job satisfaction

Study Objective #3

H₃ There is no significant difference in future career plans of traditional and nontraditional career role vocational agriculture teachers for next year and five years into the future.

The basic statistical tool used in this study was a parametric statistical test, the Student's "t". Courtney and Sedgwick (1972) indicate that this statistical tool can be used for descriptive studies. The requirements for the use of the "t" statistic are normality, random samples, interval scale data, and two group means of correlated or uncorrelated data, of which this study is the latter. This study met all of the requirements, as a normal distribution was assumed.

The Student's "t" test was used to contrast the difference between the means of traditional and nontraditional career role teachers on each of the selected items for career choice influence (Hypothesis 1), work satisfaction (Hypothesis 2), and career plans for next year and for five years in the future (Hypothesis 3). For Hypothesis 2 the Student's "t" test was used twice: (1) once to contrast male and female mean differences for each of the selected items for work satisfaction and (b) once to determine whether significant differences existed between male and female mean scores for the grouped items related to feedback

on performance, involvement in decision-making, stress inoculation, opportunities for growth, recognition, responsibility, achievement and salary.

Given a calculated value of "t", this value was interpreted in the sampling distribution for its probability under the terms of the null hypothesis. If this probability value was equal to or less than the criterion set for statistical inference, the null hypothesis was rejected. All decisions for the rejection or acceptance of the null hypothesis were made at the .05 confidence level.

Readers of this study must remember that the results of the Student's "t" test indicate only whether differences exist or do not exist between the mean scores of the male and female respondents. The Student's "t" test does not determine the degree of difference. For variables where statistically significant differences do occur, the difference between the male and female mean scores indicate the direction of the difference. For a meaningful interpretation of the data the mean scores for each variable should also be examined as to placement on the Likert-type response scale. Failure to look at the placement of the mean scores on the Likert-type response scale could lead to unwarranted conclusions as to level of influence for career choice components, level of satisfaction for work-related factors, and level of probability for future career plan options.

IV. PRESENTATION AND ANALYSIS OF DATA

This chapter presents the findings relevant to the three hypotheses cited in Chapter III. The purpose of the study was to determine whether differences, if any, existed between vocational agriculture nontraditional (female) and traditional (male) career role teachers' perception of career choice influence, work satisfaction, and career plans. A three page, 64-item mail instrument was used to gather the data. The Student's "t" statistical design was applied to the data collected. The findings presented relate to four areas: demographic data, career choice, work satisfaction, and career plans for next year and for five years into the future.

Demographic Data

Part I of the Vocational Agriculture Teacher Career Choice, Work Satisfaction, and Career Plans Instrument collected demographic data for a description of the nontraditional and traditional career role population. A total of 232 vocational agriculture teachers were involved in this study. The sample was stratified for equal sex representation and for a maximum of seven years of teaching experience. Respondents are described according to length of teaching experience, contract position, teaching responsibilities, contract length, program level, and type of department.

Teaching Experience

Table 2 shows the years of teaching experience for the male and female respondents. Sixty-one percent of the sample (37 percent female

Table 2. Number and percent of vocational agriculture respondents classified by years of teaching experience (n = 232).

Teaching experience	Teachers				Total	
	Female		Male		N	%
	N	%	N	%		
Less than one year	16	7	14	6	30	13
One year	12	5	7	3	19	8
Two years	29	13	16	7	45	20
Three years	28	12	19	8	47	20
Four years	11	5	19	8	30	13
Five years	8	3	10	4	18	8
Six years	7	3	15	7	22	10
Seven years	5	2	16	7	21	9
Total	116	50	116	50	232	100

Table 3. Number and percent of vocational agriculture respondents classified by position(s) for 1978-79 contract.*

Position	Teachers				Total	
	Female		Male		N	%
	N	%	N	%		
Part-time Vo-Ag teacher	12	60	8	40	20	100
Full-time Vo-Ag teacher	91	51	88	49	179	100
Department head only	0	0	2	100	2	100
Department head and Vo-Ag teacher	20	40	30	60	50	100
FFA advisor	74	53	66	47	140	100
Continuing Ed. teacher	21	57	16	43	37	100
Supervised Occupationa Program teacher	37	54	32	46	69	100
Class advisor	2	50	2	50	4	100
Other	16	55	13	45	29	100

*Respondents checked all positions appropriate to current contract.
Total n potential is 232.

and 24 percent male) had taught three years or less; therefore, 39 percent of the subjects had taught more than three years. Teachers with less than one year of experience and teachers with seven years or more of experience represented 13 percent and 9 percent of the sample, respectively.

The male and female teachers clustered at the two-, three-, and four-year categories of teaching experience. Sixty percent of the total female sample and 53 percent of the total male sample have taught two to four years.

Contract Position

The male and female vocational agriculture teachers varied on positions for which they were under contract to their school (Table 3). "Full-time vocational agriculture teacher" was the position held by the largest number of respondents. It was checked by 91 female and 88 male teachers. Of the 232 teachers, 140 (74 females and 66 males) were advisors for Future Farmers of America. For this study men held a higher percentage than women of the positions "Department Head and Vocational Agriculture Teacher" (60 percent) and "Department Head only" (100 percent). However, in the total sample only two respondents checked the category of "Department Head only." Women occupied a larger percentage of the other position options than men: "Part-time Vo-Ag Teacher" (60 percent), "FFA Advisor" (53 percent), and "Supervised Occupational Experience Program Teacher" (54 percent). Males and females were equally represented as class advisors.

Teaching Responsibilities

Teaching responsibilities carried by traditional (male) and non-traditional (female) career role teachers are presented in Table 4. Women and men were almost equally represented among the 41 respondents teaching exploratory agriculture, 21 and 20, respectively. Men and women differed on percentage of involvement within the other course options. Of the respondents who reported teaching classes in Agriculture I and Ornamental Horticulture, 38 percent and 61 percent, respectively, were women. Fifty to 60 percent of the Agriculture II and III, Agricultural Production, Agricultural Supplies and Services, and Agriculture Products teachers were men. In addition 70 to 80 percent of the teachers who reported a responsibility for classes in Forestry, Agriculture IV, Agriculture Mechanics, and Agriculture Resources were men.

Length of Contract

A majority of the respondents for this study (67 percent) indicated that they were employed on either ten-month or twelve-month contracts (Table 5). Representation of male and female vocational agriculture teachers was nearly equal for the two contracts, 32 percent and 35 percent, respectively. For the remaining one-third of the teachers, more females were employed on nine-month contracts (7 percent) than males (3 percent). Eleven-month contracts were nearly equal in distribution among males (19 percent) and females (17 percent).

Table 4. Number and percent of vocational agriculture respondents classified by 1978-79 teaching responsibilities.*

Teaching responsibilities	Teachers				Total	
	Female		Male			
	N	%	N	%	N	%
Exploratory Agriculture	21	51	20	49	41	100
Agriculture I	24	39	38	61	62	100
Agriculture II	14	32	30	68	44	100
Agriculture III	11	35	20	65	31	100
Agriculture IV	6	26	17	74	23	100
Agricultural Production	16	33	32	68	48	100
Agricultural Supplies & Service	4	33	8	68	12	100
Agricultural Mechanics	6	16	32	84	38	100
Agricultural Products	3	33	6	67	9	100
Ornamental Horticulture	61	58	44	42	105	100
Agricultural Resources	4	24	13	74	17	100
Forestry	3	22	11	78	14	100
Agriculture, Other	30	59	21	41	51	100

*Respondents checked all responsibilities appropriate to current position. Total n potential is 232.

Table 5. Number and percent of vocational agriculture respondents classified by length of teaching contract (n = 232).

Length of contract	Teachers				Total	
	Female		Male			
	N	%	N	%	N	%
Nine months	17	7	8	3	25	10
Ten months	34	15	38	16	72	31
Eleven months	18	8	21	9	39	17
Twelve months	40	17	43	19	83	36
Other	7	3	6	3	13	6
Total	116	50	116	50	232	100

Program Level

Male and female teachers in this study were concentrated at the comprehensive senior high school level (Table 6). Of the 113 teachers at the comprehensive senior high school level, 52 (46 percent) were female and 61 (54 percent) were male. Sixty-four percent (18) of the junior high school positions were held by men. Female vocational agriculture teachers predominated in the Middle School, Vocational School, Area Vocational School, and other levels by 75 percent, 57 percent, 51 percent and 59 percent, respectively.

Type of Department

As shown in Table 7, 40 percent of the male respondents were in single teacher departments and 42 percent of the male respondents were in multi-teacher departments of the same sex. Thirty percent of the female respondents indicated that they were in single teacher departments. Sixty-six percent of the women reported being in multi-teacher departments of both sexes; whereas, 18 percent of the males reported working in multi-teacher departments of both sexes. Males (41 percent) more frequently work in multi-teacher departments of the same sex than women (2 percent).

Career Choice

Part II of the instrument was a 17-statement questionnaire used to study Hypothesis #1, that there was no significant difference in the factors perceived to influence career choice for nontraditional (female) and traditional (male) career role teachers of vocational agriculture.

Table 6. Number and percent of vocational agriculture respondents classified by program level(s) taught.*

Program level	Teachers				Total	
	Female		Male			
	N	%	N	%	N	%
Middle School	12	75	4	25	16	100
Junior High School	10	36	18	64	28	100
Comprehensive Senior High School	52	46	61	54	113	100
Area Vocational School	23	51	22	49	45	100
Vocational High School	21	57	16	43	37	100
Other	10	59	7	41	17	100

*Respondents checked all levels appropriate to current position. Total potential is n = 232.

Table 7. Number and percent of vocational agriculture respondents classified by type of department (n = 232).

Type of Department	Teachers				Total	
	Female		Male			
	N	%	N	%	N	%
Single-Teacher Departments	36	15	47	20	83	35
Multi-Teacher Departments of Same Sex	4	2	48	21	52	23
Multi-Teacher Departments of Both Sexes	76	33	21	9	97	42
Total	116	50	116	50	232	100

For career choice, 17 statements were used in the testing of the null hypothesis. On all 17 statements respondents were asked to record level of influence of that criterion to their choice on a six point Likert-type scale ranging from "very positive" to "not applicable."

A point value was assigned to each response as follows:

- 6.0 Very positive influence
- 5.0 Moderately positive influence
- 4.0 Neither
- 3.0 Moderately negative influence
- 2.0 Very negative influence
- 1.0 Not applicable

For the 17 items on career choice, female vocational agriculture teachers' mean scores ranged from 5.41 (personal interest in teaching and/or agriculture) to 2.90 (nonagriculture-related female teacher and FFA). Male mean scores for the same 17 items ranged from 5.34 (personal interest in teaching and/or agriculture) to 2.71 (nonagriculture-related female teacher). The numerical value of each male and female mean score indicated the level of influence for a specific factor related to career choice. This numerical value should be observed as the data is analyzed and interpreted.

In order to statistically test the null hypothesis, each of the item statements was analyzed using the Student's "t" statistic. The .05 level of significance was used to determine in which areas significant differences existed among the mean scores between the groups of male and female. The group means, standard deviations, "t" statistics, level of significance, and null hypothesis decision for the 17 statements

on career choice influence are presented in Table 8. The item statements are discussed according to the categories of personal interest, parents/relatives, siblings, educational personnel, peer group, media, and class and work experiences.

Personal Interest

Item 1 (personal interest in teaching agriculture) and item 2 (career aptitude tests) related to the category of personal interest (Table 8). The null hypothesis was retained for both items. Examination of the female mean score (5.41) and the male mean score (5.34) indicated that the expressed personal interest in teaching agriculture was a "moderately positive" to "very positive" influence on career choice for both the traditional and nontraditional career role teacher in vocational agriculture. This finding supports the conclusion reached by Lewis and Kaltreider (1976) and Sherman and James (1976). For measured interest (aptitude tests), the female and male mean scores were 3.22 and 3.46, respectively.

Parents/Relatives

Career choice influence through parents/relatives was measured by item 3 (father or father figure), item 4 (mother or mother figure) and item 5 (relatives). The null hypothesis was retained for "father or father figure" and "relatives." The null hypothesis for "mother or mother figure" was rejected at the .001 level of significance. The nontraditional and traditional career role respondents' mean scores, 3.74 and 3.01, respectively, indicated that the nontraditional career

Table 8. Student's "t" test summary on vocational agriculture teachers' career choice.

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of significance	Null hypothesis
			Female	Male			
<u>Personal Interest</u>							
1. Personal interest in teaching and/or agriculture	5.41	5.34	0.90	1.02	-0.48	.63	Retain
2. Career aptitude tests	3.22	3.46	1.66	1.53	1.13	.26	Retain
<u>Parents/Relatives</u>							
3. Father or father figure	3.48	3.33	1.72	1.77	-0.68	.50	Retain
4. Mother or mother figure	3.74	3.01	1.64	1.67	-3.37	.001	Reject
5. Relatives	3.24	3.22	1.65	1.67	-0.10	.92	Retain
<u>Siblings</u>							
6. Siblings	3.09	2.87	1.56	1.57	-1.05	.30	Retain
<u>Media</u>							
7. Books or movies	3.21	3.57	1.50	1.59	1.76	.08	Retain
<u>Peer Group</u>							
8. Peer of opposite sex	3.53	2.81	1.75	1.62	-3.27	.001	Reject
9. Peer of same sex	3.40	3.27	1.76	1.76	0.55	.58	Retain
<u>Educational Personnel</u>							
10. Nonagriculture related male teacher	3.04	2.97	1.67	1.72	-0.35	.73	Retain
11. Nonagriculture related female teacher	2.90	2.71	1.59	1.62	-0.87	.39	Retain
12. Guidance counsellor	2.99	3.19	1.54	1.57	0.98	.33	Retain

Continued

Table 8. Continued

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of signifi- cance	Null hypothesis
			Female	Male			
<u>Class and Work Experience</u>							
13. High school courses	3.25	4.11	1.66	1.79	3.81	.0002	Reject
14. College course	4.84	4.74	1.35	1.42	0.58	.56	Retain
15. Work experience in junior or senior high school	3.65	3.71	1.80	1.82	0.25	.80	Retain
16. FFA	2.90	3.79	1.91	2.00	3.37	.009	Reject
<u>Role Model</u>							
17. Vocational agriculture teacher	3.16	4.11	1.96	1.96	3.64	.0003	Reject

career role person was more positively influenced by the mother. This finding is congruent with the work by Trigg and Perlam (1976) and Andberg, Follett, and Hendel (1976).

Siblings

The influence of siblings on career choice is measured by item 6 (siblings). The null hypothesis was retained for sibling influence on career choice (Table 8). The female mean score (3.09) and the male mean score (2.87) point out that brothers and sisters are a "moderately negative" influence on the career choice of male and female vocational agriculture teachers.

Media

Responses to item 7 (books and movies) were measured for identification of differences on career choice influence (Table 8). The retention of the null hypothesis indicated a lack of significant difference between the male and female means for item 7. Mean scores indicate that "books and movies" were a "moderately negative" to "neither a positive nor a negative" influence on career choice of the vocational agriculture teachers in this study.

Peer Group

Table 8 shows peer group influence measured by responses to item 8 (peer of opposite sex) and item 9 (peer of same sex). The null hypothesis was retained for "peer of the same sex." Female and male mean scores show that peers of the same sex were "neither a positive

nor a negative" influence on career choice for the respondents in this study. The null hypothesis was rejected at the .001 level of significance for peers of the opposite sex. Inspection of the mean score shows the female mean (3.53) to be the larger. In this study, therefore, peers of the opposite sex were a less negative influence on career choice of females than of the males. The finding may not be different from the work by Lewis and Kaltreider (1976), who found the male peer to be critical of the female selecting a nontraditional role. The male mean score (2.81) indicated that female peers were a "very negative" to a "moderately negative" influence on career choice.

Educational Personnel

Item 10 (nonagriculture-related male teacher), item 11 (nonagriculture-related female teacher), and item 12 (guidance counselor) responses were used to measure differences on career choice influence of educational personnel (Table 8). The null hypothesis was retained for all three items of measure. For both the males and females in this study, the mean scores indicate that counselors and nonagriculture-related male and female teachers tend to be a "moderately negative" influence on career choice.

Class and Work Experience

Responses to item 13 (high school courses), item 14 (college courses), item 15 (work experience in junior or senior high school), and item 16 (FFA) were used to indicate significant differences with regard to class and work experience influence on vocational agriculture

teachers' career choice (Table 8). The null hypothesis was retained for "college courses" and "work experience in junior or senior high school." Examination of the male and female mean scores (3.71 and 3.65, respectively) indicated that junior and senior high school work experience had a "moderately positive" to "neither a positive nor a negative" influence on career choice. This finding does not agree with Brito and Junenius (1978), who found work experience to be a positive influence for the nontraditional career holder. The male mean score (4.74) and the female mean score (4.84) indicated that college course work was a "moderately positive" to "very positive" influence on career choice for both groups of vocational agriculture teachers.

The null hypothesis was rejected for "FFA" and "high school courses" career choice influence. The level of significance for "FFA" was .0009 and .0002 for "high school courses." The mean scores indicated that "high school courses" (4.11 for males and 3.25 for females) and "FFA" (3.79 for males and 2.90 for females) were a more positive influence on traditional (male) career choice than nontraditional (female) career choice. The direction of influence for "high school courses" disagrees with the Indiana study, where high school courses were found to be a positive influence on career choice for nontraditional career role seekers (Sex as a Determinant..., 1977). Almquist (1974) reached a finding similar to that of the Indiana study but for college course work rather than high school.

Role Models

The career choice influence of role models was measured by item 17 (vocational agriculture teacher) (Table 8). The null hypothesis was rejected for role models at the .0003 significance level. Inspection of the means indicated that vocational agriculture teachers were a more positive influence on career choice for traditional career role vocational agriculture teachers than for nontraditional. This finding would support the study by Fielstra (1955) who found role models to be a positive influence on education majors but refute the work by Andberg, Follett, and Hendel (1976) with Veterinary Science majors, where the nontraditional (female) career role students indicated that male role models were a positive influence on career decision.

Work Satisfaction

Part III of the research instrument was a 24-statement questionnaire used to study Hypothesis #2, that there was no significant difference in perceived work satisfaction for traditional and nontraditional career role vocational agriculture teachers on selected factors. In all of the 24 statements respondents were asked to record the level of satisfaction on a five-point Likert-type scale. Responses ranged from "very satisfied" to "very dissatisfied." A point value was assigned to each response as follows:

- 5.0 Very satisfied
- 4.0 Moderately satisfied
- 3.0 Neither satisfied nor dissatisfied

2.0 Moderately dissatisfied

1.0 Very dissatisfied

The female mean scores for the items related to work satisfaction ranged from 4.26 (freedom to use personal judgment) to 2.54 (information about job responsibilities from prior teacher in your position). The male mean scores for the items related to work satisfaction ranged from 4.41 (freedom to use personal judgment) to 2.55 (amount of your salary). As the data is analyzed and interpreted, the numerical value of each mean score should be noted with regard to level of work satisfaction for each work-related factor.

The Student's "t" statistic was run twice in order to statistically test the null hypothesis. First, each item was analyzed for significant difference among the male and female group means. Second, the items were grouped according to the categories of performance, decision-making involvement, stress inoculation, opportunity for growth, responsibility, recognition, salary, and achievement. Each of the categories was analyzed for significant difference among the means between the groups of male and female vocational agriculture teachers.

The group means, standard deviations, "t" statistic, level of significance, and null hypothesis decision for the 24 individual item statements on work satisfaction are included in Table 9. The same information is presented for the grouped work satisfaction variables in Table 10. The individual and grouped item statements are both discussed under the appropriate group title.

Feedback on Performance

Individual Items. Satisfaction with "feedback on performance" was measured by the answers for two items: item 1 (frequency with which administration gives you feedback on work done), and item 2 (amount of information you receive on job performance from administrator (Table 9). The null hypothesis was rejected for both items at the .04 and .007 level of significance, respectively. Examination of the mean scores indicated that male and female vocational agriculture teachers were "neither satisfied nor dissatisfied" with frequency of feedback on performance or amount of feedback; however, the male mean was larger for both items. This difference indicated that males were more satisfied than females on frequency with which administrators gave feedback and the amount of feedback received.

Grouped Items. The Student's "t" test was also run on items 1 and 2 as a group. The null hypothesis was rejected at the .008 level of significance. The mean of the male group was the larger, an indicator of higher satisfaction for males than for females with regard to "feedback on performance." Lawler (1973) indicated that feedback on performance is one of the essential elements in the attainment of personal satisfaction from the job.

Decision-Making Involvement

Individual Items. Responses to item 3 (freedom to use personal judgment) and item 4 (opportunity to take part in decision-making) was used to measure the variable of "decision-making involvement" (Table 9).

Table 9. Student's "t" test summary on vocational agriculture teachers' work satisfaction.

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of significance	Null hypothesis
			Female	Male			
<u>Feedback on Performance</u>							
1. Frequency with which administrator gives you feedback on work done	3.18	3.54	1.27	1.33	2.10	.04	Reject
2. Amount of information you receive on job performance from administration	2.93	3.34	1.14	1.13	2.72	.007	Reject
<u>Decision-Making Involvement</u>							
3. Freedom to use personal judgment	4.26	4.41	1.11	1.01	1.11	.27	Retain
4. Opportunity to take part in decision-making	3.60	3.75	1.07	1.13	1.10	.27	Retain
<u>Stress Inoculation</u>							
5. Extent to which administration informs you about school policy	3.39	3.44	1.27	1.24	0.31	.76	Retain
6. Information about job and responsibilities from prior teacher in your position	2.54	2.96	1.17	1.22	2.65	.009	Reject
7. Open, honest communication among Vo-Ag staff	3.62	3.70	1.21	1.25	0.49	.62	Retain
8. Help received from co-workers in learning about present position and responsibilities	3.43	3.64	1.09	1.00	1.48	.14	Retain

Continued

Table 9. Continued

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of signifi- cance	Null hypothesis
			Female	Male			
<u>Opportunity for Growth</u>							
9. Opportunity to advance to a position of greater responsibility	2.76	3.02	1.11	1.08	1.80	.07	Retain
10. Opportunity to try out new ideas	4.17	4.21	0.95	0.92	0.34	.73	Retain
11. Opportunity to make use of your abilities	3.77	4.01	1.14	1.21	1.51	.13	Retain
<u>Responsibility</u>							
12. Availability of time to do justice to both career and family responsibilities	2.89	3.13	1.25	1.34	1.38	.17	Retain
13. Number of different course preparations required	3.41	3.66	1.13	1.08	1.70	.09	Retain
14. Demand of time beyond formal school day	2.77	2.93	1.26	1.21	1.01	.31	Retain
<u>Recognition</u>							
15. Respect of administration for intellectual, administrative and organizational skills	3.30	3.47	1.36	1.22	1.02	.31	Retain
16. Respect of co-workers for intellectual, administrative and/or organizational skills	3.68	3.81	1.04	0.99	1.00	.31	Retain
17. Amount of recognition received, compared to co-workers, for efforts and contribution	3.09	3.46	1.26	1.14	2.32	.02	Reject
18. Amount of recognition given by the community for your contribution and efforts	3.10	3.45	1.07	1.12	2.47	.01	Reject

Continued

Table 9. Continued

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of signifi- cance	Null hypothesis
			Female	Male			
<u>Salary</u>							
19. Your salary compared to that of people with similar training in other professions	2.88	2.56	1.38	1.32	1.79	.08	Retain
20. Method used to determine your salary	2.96	2.61	1.23	1.27	2.10	.04	Reject
21. Amount of your salary	2.92	2.55	1.31	1.28	2.18	.03	Reject
<u>Achievement</u>							
22. Personal rewards from observing student growth	4.07	4.17	0.97	0.98	0.80	.42	Retain
23. Personal feeling of accomplishment	3.77	3.89	1.15	1.16	0.75	.45	Retain
<u>Overall Satisfaction</u>							
24. Overall level of job satisfaction	3.75	3.91	1.02	0.99	1.25	.21	Retain

The null hypothesis was retained for both items. The mean scores indicated that both the males (4.41) and females (4.26) were "moderately satisfied" to "very satisfied" with the "freedom to use personal judgment" on the job. The mean scores for male (3.75) and female (3.60) vocational agriculture teacher ranged between "neither satisfied nor dissatisfied" and "moderately satisfied" on the "opportunity to take part in decision-making." Retention of the null hypothesis refutes the finding of Rennick and Lawler (1978) that men were more highly satisfied with decision-making involvement than women.

Grouped Items. The statistical analysis of both items as a group also retained the null hypothesis for "decision-making involvement" (Table 10).

Stress Inoculation

Individual Items. The responses to four statements on the survey instrument measured "stress inoculation," i.e., items 5, 6, 7, and 8. The null hypothesis was retained for three of the items: item 3 (extent to which administration informs you of school policy), item 7 (open, honest communication among Vo-Ag staff members), and item 8 (help received from co-workers in learning about present position and responsibilities) (Table 9). Although there were no significant differences with regard to satisfaction, there was a tendency for the male mean score and the female mean score for each of these items to come between "neither satisfied nor dissatisfied" and "moderately satisfied."

The null hypothesis was rejected at the .009 level of significance for item 6 (information about job and responsibilities from prior

Table 10. Student's "t" test summary on vocational agriculture teachers' satisfaction for selected variables related to work.

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of significance	Null hypothesis
			Female	Male			
Feedback on performance	6.10	6.88	2.21	2.20	2.68	.008	Reject
Decision-making involvement	7.83	8.17	1.94	1.76	1.42	.16	Retain
Stress inoculation	12.55	13.44	3.31	3.20	2.08	.04	Reject
Opportunity for growth	10.60	11.09	2.59	2.44	1.52	.13	Retain
Responsibility	9.08	9.59	2.87	2.81	1.52	.13	Retain
Recognition	13.10	14.17	3.37	3.04	2.51	.01	Reject
Salary	8.75	7.73	3.48	3.34	-2.23	.027	Reject
Achievement	7.84	8.06	1.84	1.83	0.90	.37	Retain

teacher in your position). Mean scores indicated that male and female vocational agriculture teachers tended to range from "moderately dissatisfied" to "neither satisfied nor dissatisfied." The male mean was higher than the female mean for this item. The males were, therefore, more satisfied than the females with information from the prior teacher. The findings for "information about job responsibilities from prior teacher in your position" support Quinn, Staines, and McCullough's (1974) conclusion that having enough information to do one's job relates to job satisfaction, or lack of it to job dissatisfaction.

Grouped Items. For the combined responses to the four items identified above, the null hypothesis was rejected at the .04 level of significance. Inspection of the means indicated that males had a higher level of satisfaction than females for the variable "stress inoculation" (Table 10). In support of the higher male satisfaction on stress inoculation, Terborg (1977) stated that research on men has shown that group bonds are important sources of support, which ease initiation to job demands and work groups.

Opportunity for Growth

Individual Items. Table 9 indicates that the null hypothesis was retained for each of the three items related to "opportunity for growth": item 9 (opportunity to advance to a position of greater responsibility); item 10 (opportunity to try out new ideas); and item 11 (opportunity to make use of your abilities). Although there were no significant differences, the mean scores indicate that the male group and the female group was each "moderately satisfied" for "opportunity to try

out new ideas." The female mean score was 4.17 and the male mean score was 4.21.

Grouped Items. The combined effect of the above three items retained the null hypothesis for the variable "opportunity for growth" (Table 10).

Responsibility

Individual Items. Responses to item 12 (availability of time to do justice to both career and family responsibilities), item 13 (number of different course preparations required), and item 14 (demand of time required beyond formal school day) measured satisfaction on "responsibility." The null hypothesis was retained for all three items (Table 9). The mean scores for male and female vocational agriculture teachers regarding time for dual role responsibilities and time demands beyond the school day indicated that both groups tended to be "neither satisfied nor dissatisfied." However, with regard to the number of course preparations, the mean for each group came between "neither satisfied nor dissatisfied" and "moderately satisfied" on the instrument response scale.

Grouped Items. A Student's "t" statistical analysis of the grouped responses for the three previously identified items on "responsibility" retained the null hypothesis.

Recognition

Individual Items. Four statements on the instrument required information as to job satisfaction for the variable "recognition" (Table 9). The null hypothesis was retained for item 15 (respect of administration for intellectual, administrative, and organizational skills), and item 16 (respect of co-workers for intellectual, administrative, and/or organizational skills). The null hypothesis was rejected for item 17 (amount of recognition received, compared to co-workers, for efforts and contribution) and item 18 (amount of recognition given by the community for your contributions and efforts). Item 17 was rejected at the .02 level of significance and item 18 at the .01 level. The male mean scores are higher for both items than the female mean scores. The difference in mean scores indicated that males had a higher level of satisfaction for recognition received from co-workers and the community than females had. The male and female mean scores for all four items fell between the instrument response categories of "neither satisfied nor dissatisfied" and "moderately satisfied."

Grouped Items. The null hypothesis was rejected at the .01 level for the grouped responses related to "recognition" (Table 10). Examination of the mean scores showed that the males were more satisfied with "recognition" than females were.

Salary

Individual Items. Responses to three items measured job satisfaction with regard to "salary." The null hypothesis was retained for item 19 (your salary compared with people with similar training in other professions) (Table 9). The null hypothesis was rejected for item 20 (method used to determine your salary) and item 21 (amount of your salary) at the significance levels of .04 and .03, respectively. Although the mean scores were low for both groups, the female mean scores were higher for both items than the male mean scores. The differences in scores indicated a higher level of satisfaction for females in regard to amount and method of salary determination than for males. The male mean score (2.55) and the female mean score (2.92) for "amount of salary" indicated that as a group there was a tendency to range between "neither satisfied nor dissatisfied" and "moderately dissatisfied." This finding partially supports the research by Knight and Bender (1979) who found that vocational agriculture teachers were dissatisfied with the salary received and were therefore leaving the profession.

Grouped Items. The null hypothesis was rejected at the .02 level of significance for "salary" (Table 10). The higher female mean score specified that females were more satisfied with "salary" than males. This finding supports Tremain's (1979) study on vocational educators whereby women's present and expected work satisfaction with the value of pay was greater than men's satisfaction.

Achievement

Individual Items. Two items related to "achievement" and its effect on the job satisfaction instrument. A Student's "t" statistical analysis of the responses to item 22 (personal rewards from observing student growth) and item 23 (personal feeling of accomplishment) retained the null hypothesis for both items (Table 9). Inspection of the means (males, 4.17; females, 4.07) indicated that the male and female teachers were between "moderately satisfied" and "very satisfied" for "personal rewards from observing student growth." Female and male vocational agriculture teachers were between "neither satisfied nor dissatisfied" and "moderately satisfied" for "personal feelings of accomplishment."

Grouped Items. The null hypothesis was retained for the grouped responses of "achievement" related items (Table 10).

Overall Job Satisfaction

One statement (item 24) on the instrument related to the measurement of the overall level of job satisfaction. The null hypothesis was retained for this variable (Table 9). The mean scores of the male and female teachers indicated that both groups were between "neither satisfied nor dissatisfied" and "moderately satisfied" on "overall job satisfaction." The finding of this study that there was no significant difference between men and women on overall job satisfaction refutes the finding by Hollan and Gemmill (1976) who found women to be less satisfied overall than men. However, this study's finding is supportive

of the conclusion reached by Rennick and Lawler (1978) and Quinn, Staines, and McCullough (1974) that men and women were equally satisfied on "overall job satisfaction."

Career Plans

Part IV of the instrument was a 13-statement questionnaire to study Hypothesis #3, that there was no significant difference in the future career plans perceived for next year and five years from now by nontraditional (female) and traditional (male) career role teachers in vocational agriculture. On all 13 career plan statements, respondents were asked to record level of probability on a five-point Likert-type scale. Responses ranged from "strong probability" to "strong improbability." A point value was assigned to each response as follows:

- 5.0 Strong probability
- 4.0 Moderate probability
- 3.0 Neither a probability nor improbability
- 2.0 Moderate improbability
- 1.0 Strong improbability

The mean scores for the career plan options listed on the instrument (for next year) ranged from 2.33 (remain in present teaching position) to 1.36 (leave teaching temporarily for full-time homemaking career) for females, and from 2.94 (remain in present teaching position) to 1.48 (state specialist, regional coordinator, and/or local director in vocational education) for males (Table 11). The mean scores for vocational agriculture teachers' career plans (five years from now) ranged from 3.08 (leave teaching and obtain a job in

Table 11. Student's "t" test summary on vocational agriculture teachers' career plans for next year.

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of significance	Null hypothesis
			Female	Male			
<u>Teaching</u>							
1. Remain in present teaching position	2.33	2.94	1.40	1.56	3.15	.002	Reject
2. Remain in Vo-Ag teaching but change schools	2.09	2.09	1.46	1.35	0	1.00	Retain
<u>Homemaker</u>							
3. Leave teaching permanently for full-time homemaker career	1.38	1.64	0.83	1.01	2.14	.03	Reject
4. Leave teaching temporarily for full-time homemaker career	1.36	1.54	0.87	0.94	1.50	.14	Retain
<u>Administrator/Supervisor</u>							
5. Vo-Ag department head	2.22	2.83	1.44	1.66	3.01	.003	Reject
6. State specialist, regional coordinator, and/or local director in VEd	1.41	1.48	0.88	0.85	0.61	.54	Retain
<u>Nonagriculture-Related Job</u>							
7. Leave teaching and obtain non-agriculture-related job	1.67	2.00	1.16	1.30	2.03	.04	Reject
<u>Education</u>							
8. Leave teaching temporarily for further education	1.97	1.86	1.31	1.26	-0.62	.54	Retain
9. Leave teaching permanently for further education and career changes--nonagriculture-related	1.89	1.89	1.32	1.24	0.005	.99	Retain

Continued

Table 11. Continued

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of signifi- cance	Null hypothesis
			Female	Male			
<u>Dual Role</u>							
10. Part-time Vo-Ag teacher and part-time homemaker	1.60	1.71	1.10	1.09	0.77	1.00	Retain
<u>Farm-Ranch Operation</u>							
11. Leave teaching for full-time farm-ranch operation	1.38	1.82	0.95	1.21	3.06	.002	Reject
<u>Agri-business</u>							
12. Leave teaching and obtain a job in agri-business	2.15	2.31	1.45	1.40	0.89	.38	Retain
<u>Position Depends on Spouse</u>							
13. Position held depends on spouse's employment	2.11	2.13	1.24	1.25	0.11	.91	Retain

agri-business) to 2.02 (leave teaching for full-time farm-ranch operation) for the females, and from 3.10 (leave teaching and obtain a job in agri-business) to 1.60 (leave teaching temporarily for full-time homemaker career) for males (Table 12). The fact that the mean scores on all items ranged between "neither a probability nor improbability" and "strong improbability" for both males and females should be noted as the data is analyzed and interpreted.

In order to statistically test the null hypothesis each of the item statements was analyzed using the Student's "t" statistic. The .05 level of significance was used to determine areas in which significant differences existed among the mean scores between the groups of male and female. The group means, standard deviations, "t" statistic, level of significance, and null hypothesis decision for the 13 statements on perceived career plans (for next year) are included in Table 11. For career plans "five years from now," identical information is included in Table 12. Each of the item statements is discussed in relation to plans for "next year" and "five years from now," using the categorical headings of teaching, homemaker, administrator/supervisor, nonagriculture-related job, education, dual role, farm operation, agri-business, and job change depends on spouse.

Teaching

Next Year. Item 1 (remain in present teaching position) and item 2 (remain in Vo-Ag but change schools) were the statements used to gather information about future teaching plans (Table 11). The null hypothesis was rejected at the .002 significance level for the career

Table 12. Student's "t" test summary on vocational agricultural teachers' career plans five years from now.

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of significance	Null hypothesis
			Female	Male			
<u>Teaching</u>							
1. Remain in present teaching position	2.33	2.94	1.40	1.56	3.15	.002	Reject
2. Remain in Vo-Ag teaching but change schools	2.86	2.73	1.53	1.52	0.64	.52	Retain
<u>Homemaker</u>							
3. Leave teaching permanently for full-time homemaker career	2.24	1.72	1.42	1.11	3.09	.002	Reject
4. Leave teaching temporarily for full-time homemaker career	2.22	1.60	1.41	0.95	3.94	.0001	Reject
<u>Administrator/Supervisor</u>							
5. Vo-Ag department head	2.56	2.98	1.43	1.61	2.13	.03	Reject
6. State specialist, regional coordinator, and/or director in VEd	2.13	2.04	1.33	1.24	0.52	.6059	Retain
<u>Nonagriculture-Related Job</u>							
7. Leave teaching and obtain non-agriculture-related job	2.30	2.38	1.48	1.44	0.23	.70	Retain
<u>Education</u>							
8. Leave teaching temporarily for further education	2.92	2.43	1.51	1.49	2.48	.014	Reject
9. Leave teaching permanently for further education--nonagriculture-related	2.90	2.42	1.57	1.43	2.39	.02	Reject

Continued

Table 12. Continued

Item	Female mean	Male mean	Standard deviation		"t" Value	Level of signifi- cance	Null hypothesis
			Female	Male			
<u>Dual Role</u>							
10. Part-time Vo-Ag teacher and part-time homemaker	2.34	1.81	1.41	1.11	-3.21	.002	Reject
<u>Farm-Ranch Operation</u>							
11. Leave teaching for full-time farm-ranch operation	2.02	2.50	1.39	1.50	2.47	.01	Reject
<u>Agri-business</u>							
12. Leave teaching and obtain a job in agri-business	3.08	3.10	1.58	1.47	0.13	.89	Retain
<u>Position Depends on Spouse</u>							
13. Position held depends on spouse's employment	2.65	2.20	1.40	1.30	2.54	.01	Reject

plan of "remaining in present teaching position." Examination of the means showed that although both groups' means ranged between "neither a probability nor improbability" and "moderate improbability." The male mean (2.90) was larger than the female mean (2.33), and thus the male vocational agriculture teachers had a higher probability for "next year" of "remaining in the present teaching position" than females had.

Five Years from Now. The conclusions for career plans (five years from now) (Table 12) are identical with regard to the rejection and the retention of the null hypothesis on item 1 (remain in present teaching position) and item 2 (remain in Vo-Ag but change school) as found in the section above.

Homemaker

Next Year. Two items were used to measure career plans related to the homemaker career option (Table 12). Analysis of the responses on item 3 (leave teaching temporarily for full-time homemaker career) retained the null hypothesis. Both the male mean score (1.54) and the female mean score (1.36) showed a "strong improbability" to a "moderate improbability" for pursuing full-time homemaking temporarily. Responses to item 4 (leave teaching permanently for full-time homemaker career) rejected the null hypothesis. The female mean score (1.38) and the male mean score (1.64) indicated that the option was a "strong improbability" to "moderate improbability" for both groups. Inspection of the mean scores, however, determined the male mean to be the larger, and thus, the full-time homemaker option was seen as having a greater

degree of probability as a career plan for males than for the females teaching vocational agriculture. The direction of the finding may be explained by the males' being more noncommittal and checking "neither a probability nor improbability" more often than the females who indicated the specific degree of improbability.

Five Years from Now. Both items identified above in the "next year" section rejected the null hypothesis for career plans "five years from now." Item 4 (leave teaching permanently for a full-time homemaker career) was rejected at the .03 significance level. Item 3 (leave teaching temporarily for full-time homemaker career) was rejected at the .0001 significance level. For both items, the female mean was the larger. The mean scores showed that the probability of the two options as career choices were greater for the females than the males. The mean scores on both career options, however, ranged between a "moderate improbability" and a "strong improbability."

Administrator/Supervisor

Next Year. Responses to item 5 (vocational agriculture department head) and item 6 (state specialists, regional coordinator, and/or local director in vocational education) were statistically analyzed for the male and female vocational agriculture teacher differences on administrative/supervisor career plans. The null hypothesis was retained for item 6 (state specialist, regional coordinator, and/or local director in vocational education) (Table 11). The null hypothesis for item 5 was rejected at the .003 significance level. The mean scores for females (2.22) and males (2.83) indicate between a "moderate

improbability" and "neither a probability nor improbability" of pursuing the career option for both groups. Inspection of the means showed the male mean score to be higher. The direction indicated by the male mean score concurs with research by Schrieber (1979), that males aspired to managerial positions, while females did not.

Five Years from Now. The statistical analysis of responses for career plans (five years from now) indicated similar conclusions regarding the rejection or retention of the null hypothesis for items 5 and 6 as found under "next year" above. Item 5 (vocational agriculture department head) rejected the null hypothesis at the .03 significance level (Table 12). Males continued to show a higher probability of aspiring to department head positions than did females.

Nonagriculture-Related Job

Next Year. The male and female responses to item 7 (leave teaching and obtain nonagriculture-related job) were significantly different (Table 11). The null hypothesis was statistically significant at the .04 level. Inspection of the means for males (2.00) and for females (1.67) revealed that the option was a stronger probability for males than for females in this study. However, the mean score also indicated that, as a group, the male and female vocational agriculture teachers saw the option as a "slight improbability" to a "strong improbability" in career plans for "next year."

Five Years from Now. Table 12 indicates that the null hypothesis was retained for the career plan option of "obtaining a nonagriculture related job" for "five years from now."

Education

Next Year. Table 11 shows that the null hypothesis was retained for career options item 8 (leave teaching temporarily for further education" and item 9 (leave teaching permanently for further education and a nonagriculture-related career change). The mean scores show that both groups saw the two options as a "slight improbability" to a "strong improbability."

Five Years from Now. Responses to item 8 and item 9 on career plans for "five years from now" show that there are significant differences between the male and female vocational agriculture teacher in this study. The null hypothesis was rejected at the .04 significance level for item 8 (leave teaching temporarily for further education) and at the .02 level for item 9 (leave teaching permanently for further education and a nonagriculture-related career change) (Table 12). Mean scores indicated that females saw both options as a stronger probability for "five years from now" than males.

Dual Role

Next Year. There was not a significant difference between the male and female mean scores for item 10 (part-time vocational agriculture teacher and part-time homemaker) (Table 11). Inspection of the mean scores indicated that both groups saw the dual role option as being a "moderate improbability" to "strong improbability" in future career plans.

Five Years from Now. The null hypothesis was also retained for the dual role career option "five years from now."

Farm-Ranch Operation

Next Year. The response of item 11 (leave teaching for full-time farm-ranch operation) showed a significant difference between the male and female mean scores at the .002 level of significance. Inspection of the mean scores indicated that although each group perceives the option as a "moderate improbability" to a "strong improbability," the male vocational agriculture teachers see full-time farm-ranch operation as having a greater probability in future career plans than do female vocational agriculture teachers.

Five Years from Now. The null hypothesis was rejected for the career option of leaving teaching for farm-ranch operation "five years from now" (Table 12). The significance level was .01. The male mean score (2.50) and the female mean score (2.02) identified the farm-ranch career option as being between "neither a probability nor improbability" and a "moderate improbability" for both groups. The mean score, however, indicated that this option was a greater probability for the male vocational agriculture teachers than the female.

Agri-business

Next Year. The null hypothesis was retained for item 12 (leave teaching and obtain a job in agri-business) (Table 11). Mean scores indicate that this option ranges between a "moderate improbability"

and "neither a probability nor improbability" in the career plans of female and male vocational agriculture teachers.

Five Years from Now. The null hypothesis was retained for item 12 (leave teaching and obtain a job in agri-business) (Table 12). Mean scores for both groups indicate that obtaining a job in agri-business "five years from now" ranges between "neither a probability nor improbability" and a "moderate probability."

Position Depends on Spouse

Next Year. Statistical analysis of the male and female responses indicated that the null hypothesis was retained for item 13 (position held depends on spouse's employment).

Five Years from Now. The null hypothesis was rejected at the .01 level of significance for item 13 on perceived career plans for "five years from now." Examination of the mean scores indicated that male and female vocational agriculture teachers saw this option as a "moderate improbability" to "neither a probability nor improbability." In addition, the mean scores denoted that the probability of the female vocational agriculture teachers' career plans being dependent on spouse's position "five years from now," was greater than that for male vocational agriculture teachers.

Summary

The Student's "t" statistic identified 30 significant differences between traditional and nontraditional career role teachers for

perceived career choice influences, work satisfaction, and future career plans. Five significant differences were found for career choice influence, 11 for work satisfaction factors, and 14 for future career plan choices.

The .05 significance level was preselected for the hypothesis testing. Twenty of the significant differences, however, existed at the .01 probability level. The remainder were significant at .04 or below. The number of significant differences, as well as the probability level at which they were determined indicates that the differences between traditional and nontraditional career role vocational agriculture teachers are real and not merely a chance occurrence. However, the interpretation of the findings related to the presence or absence of significant differences between male and female vocational agriculture teachers' career choice influence, work satisfaction, and future career plans should be paralleled with a notation of the placement of the male and female mean scores on the appropriate Likert-type response scale.

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes the study reported herein and makes recommendations based upon the findings. The four sections included in this chapter are: summary, conclusions, recommendations, and research recommendations.

Summary

Purpose

The main purpose of this study was to determine whether any significant differences between nontraditional and traditional career role teachers' perceptions of career choice influences, work satisfaction, and career plans existed. This study examined the reported perceptions of both female (nontraditional career role) and male (traditional career role) vocational agriculture teachers from five states (California, Florida, Ohio, Virginia, and New York).

Methodology

A review of related literature and research instruments, pertaining to career choice, work satisfaction, and career plans, guided the initial development of the research instrument used in this study. Vocational education graduate students and undergraduate agriculture education students evaluated the initial instrument for clarity, format, content, readability, and ease of response. Upon completion of this procedure, a final copy of the instrument was compiled and printed.

The three-page research instrument, designed for data collection

in this study, consisted of 64 items. The individual items were divided into four sections: general information data, career choice, work satisfaction, and career plans. Section I, the general information section of the instrument, was designed to gather descriptive data from each of the respondents concerning length of teaching experience, contract position(s), teaching responsibilities, grade level taught, contract length, and type of department. Section II was designed to measure the influence of personal interest, media, peer group, educational personnel, class and work experience, parents and relatives, and role models on vocational agriculture teachers' career choice. Section III of the instrument was designed to measure the level of vocational agriculture teachers' work satisfaction as affected by feedback on performance, involvement with decision-making, stress inoculation, opportunities for growth, responsibility, recognition, salary, achievement, and overall job satisfaction. Section IV was designed to measure the probability of vocational agriculture teachers' pursuing career plans related to teaching, advanced education, homemaker role, agri-business employment, nonagriculture employment, farm operation, administration/supervision, dual role, and extent to which the position held depends on spouse's employment for next year and for five years into the future.

Identification of the states in which the nontraditional career role teacher had made employment inroads in secondary vocational agriculture was essential to the testing of the hypotheses. Employment inroads were considered to have been made when 20 or more female vocational agriculture teachers were employed at the 12th grade level

or below. Each of the national regions (Craig, 1978) had a state(s) which met the criterion (North Atlantic, New York; Southern, Florida and Virginia; Pacific, California; and Central, Ohio). The State Vocational Agriculture Specialist, in each of the five states identified, provided a State Directory of Secondary Vocational Agriculture Teachers from which the male and female population was selected by using a random-numbers table. The population of the study consisted of the 186 female secondary vocational agriculture teachers and 379 male secondary vocational teachers. A larger number of males than females was selected in order to stratify the actual study sample by sex and years of teaching experience.

Each of the 565 subjects received a cover letter and a research instrument. One written follow-up was sent to nonrespondents two weeks after the mailing of the first instrument. A 74.3 percent return rate (420 instruments) was achieved. The returned instruments were sorted according to sex and seven years or fewer of teaching experience. The sample for testing the hypotheses then became 116 randomly selected male vocational agriculture teachers and 116 randomly selected female vocational agriculture teachers.

All data were placed on coding forms and key punched on computer cards for analysis. For each item on the instrument, the Student's "t" test was used to contrast the mean scores for nontraditional career role vocational agriculture teachers and traditional career role vocational agriculture teachers on perceived career choice influences, work satisfaction, and career plans for next year and five years in the future. In addition, the Student's "t" test was used to contrast the

mean scores for nontraditional career role vocational agriculture teachers and traditional career role vocational agriculture teachers on perceived career choice influences, work satisfaction, and career plans for next year and five years in the future. In addition, the Student's "t" test was used to contrast the mean scores for grouped items under work satisfaction, i.e., feedback on performance, involvement in decision-making, stress inoculation, opportunities for growth, responsibility, recognition, salary, and achievement. The null hypotheses were rejected at the .05 level of significance. However, a significant difference between the two groups did not mean that one group was at the high end of the Likert-type response scale and the other group at the low end. Both groups may have been clustered in the center or either end of the Likert-type response scale.

Hypothesis 1: There are no significant differences in the factors perceived to influence career choice for traditional and nontraditional career role vocational agriculture teachers.

On the basis of five factors, Hypothesis 1 was rejected for traditional and nontraditional career role vocational agriculture teachers. Nontraditional career role (female) vocational agriculture teachers perceived a mother or mother figure and a peer of the opposite sex as a more positive influence on career choice than did the males. Traditional career role (male) vocational agriculture teachers, however, perceived factors related to school and role models (high school courses, vocational agriculture teacher, and Future Farmers of America) as more influential in their career choice than did the females.

However, mean scores for career choice factors, in which significant differences were found between male and female teachers, did not indicate a "very positive" influence" for either group.

When one examines the mean scores, for the items in which there were no statistically significant differences, two additional items appear to be a positive influence on career choice. The two items are personal interest in teaching and/or vocational agriculture and college course work. These two items received the two highest mean ratings of the 17 items in the instrument.

Hypothesis 2: There are no significant differences in perceived work satisfaction for traditional and nontraditional career role vocational agriculture teachers in the areas of feedback on performance, stress inoculation, recognition, decision-making involvement, responsibility, achievement, opportunity for growth, and overall job satisfaction.

Job factors which denoted significant differences between nontraditional and traditional career role teachers in vocational agriculture were related to job content variables or extrinsic rewards. Female vocational agriculture teachers were less satisfied than male teachers with the amount of information received about job performance, as well as with the frequency with which the administrator gave feedback. Although both groups were "moderately dissatisfied" to "neither satisfied nor dissatisfied" with the method used to determine salary and the amount of salary, male vocational agriculture teachers seemed more dissatisfied than female vocational agriculture teachers. The amount of recognition for job-related efforts and contributions was less

satisfying for females than males in two areas--amount of recognition received in comparison to co-workers, and the amount of recognition received from the community. Males were more satisfied than females with regard to job orientation received from a peer previously in the position. However, both male and female vocational agriculture teachers indicated that they were "moderately dissatisfied" to "neither satisfied nor dissatisfied" with job orientation by the previous teacher in the position.

For grouped facets on job satisfaction, traditional career role teachers were more satisfied than nontraditional career role teachers with feedback about performance, stress inoculation, and recognition. Female vocational agriculture teachers, however, were more satisfied with salary, as a grouped variable, than were male vocational agriculture teachers.

Examination of the mean scores indicated that there were three areas in which both the male and female vocational agriculture teachers were "moderately to strongly satisfied." The three areas were, "freedom to use personal judgment," "opportunity to try out new ideas," and "personal rewards from observing student growth."

Hypothesis 3: There are no significant differences in future career plans perceived by traditional and nontraditional career role vocational agriculture teachers for next year and five years from now.

The traditional career role vocational agriculture teachers' career plans for next year were significantly different from nontraditional career role vocational agriculture teachers with regard to five aspects. Male vocational agriculture teachers perceived a greater

probability than females for remaining in their present teaching positions, becoming a vocational agriculture department head, and leaving teaching for either a nonagriculture-related job, farming or ranching, or full-time homemaker. The probability of the latter option can possibly be explained in the noncommittal response score selected by the male vocational agriculture teachers.

Although the career plans indicated by the respondents in the study did not show a high probability of pursuing any career goal, the findings are of value to education personnel because of the differences identified.

Responses to career plans for "five years from now" indicated that nine statistically significant differences existed between traditional and nontraditional career role teachers in vocational agriculture. Female vocational agriculture teachers had a higher probability than males of leaving teaching permanently for further education and a nonagriculture-related career change or full-time homemaking, or leaving teaching temporarily for further education or full-time homemaking. Part-time employment in other occupations--homemaker and teacher--was also a greater possibility "five years from now" for females than males.

For career plans "five years into the future," males continued to report plans comparable to the trend shown for "next year." Male respondents indicated a greater probability than females for remaining in the present teaching position, for becoming a vocational agriculture department head, and for leaving teaching for farming or ranching. Reports of "career plan uncertainty" were expressed by females in that

the position held "five years from now" was often dependent on spouse's employment.

Conclusions

Based upon the data analysis and summary, the following conclusions and implications for each of the three study objectives can be postulated.

Objective 1: To determine if differences exist in the factors perceived as influential in the selection of a nontraditional (female) and a traditional (male) teaching career role for one area of vocational education, i.e., vocational agriculture.

It can be concluded that recruitment programs for vocational agriculture teachers need to have a dual focus because of the similarities and differences identified as influential factors for traditional and nontraditional career role teachers. One focus could concentrate on developing materials and programs that would be appropriate for potential teachers on the basis of personal interest--a positive influential career choice factor for both male and female vocational agriculture teachers. The second focus could address the male and female group separately through programs and materials that were directed toward the influential factors for which there were statistically significant differences, i.e., mother or mother figure, and peer of the opposite sex for females, and high school courses, FFA, and vocational agriculture teachers for males. Implications of the second focus include: (a) the development of vocational agriculture career-related material to be used in FFA and high school courses, with an

emphasis on career decision-making; (b) the involvement of mothers in vocational agriculture classes, FFA activities, and advisory committees for a greater awareness of career opportunities related to teachers in vocational agriculture; and (c) the identification of strategies whereby the vocational agriculture teacher, as a role model, can enhance his/her effectiveness in helping students to determine a realistic career choice.

An alternative approach to the dual focus of recruitment would be to try to change the influence of a factor such as FFA or high school courses, where significant differences were found, so that the factor would have an equally positive influence on both males and females. This approach requires an examination of differences and similarities of the personal traits of both males and females and a correlation of these traits to the meeting of personal needs by FFA and high school course activities.

College course work was identified as a positive influence on career choice by the participants in this study. This factor should not be overlooked as it implies that career decisions are not always solidified at college entrance and the recruitment of a teacher cannot stop with the enrollment of an individual as an agricultural education major.

From the participants responses to "other influences on career choice," it has been concluded that career choice influences in future studies should be expanded to include: college advisor, college professors, former employers, and nonschool youth organizations.

Objective 2: To determine whether differences exist in perceived work satisfaction for nontraditional (female) and traditional (male) career role teachers in one area of vocational education, i.e., vocational agriculture, in the areas of feedback on performance, involvement in decision-making, stress inoculation, opportunities for growth, responsibility, recognition, salary, achievement, and overall job satisfaction.

Although male and female secondary vocational agriculture teachers did not differ significantly in relation to overall work satisfaction, differences as well as similarities, did exist for specific facets related to the work environment. It appears that similarities in vocational agriculture teacher satisfaction come from aspects related to intrinsic factors or job context variable such as decision-making involvement, opportunity for growth, responsibility, and achievement. Differences between male and female vocational agriculture teachers' dissatisfaction relate to extrinsic factors such as stress inoculation, recognition, feedback on performance, and salary.

The females' dissatisfaction with stress inoculation, recognition, and feedback on performance might be easier to remedy (Sergiovanni and Carter, 1973), than the males' dissatisfaction with salary. The reason for this is that females' dissatisfaction involves variables within the immediate work environment; whereas males' dissatisfaction with salary involves an organization-wide variable (Williams, 1978). In Maslow's (1976) hierarchy of needs, salary can be equated with the need for security, while stress inoculation, recognition, and feedback on performance can be equated with the social and esteem needs. If vocational

agriculture teachers are to approach self-actualization on Maslow's hierarchy of needs, then the work-related facets with which males and females are less satisfied must be recognized as existing and must be examined for causes (personal and environmental). Recognition of the reasons for differences and greater dissatisfaction for one sex or the other can help in the development of strategies that aid the individual in reaching self-actualization. This approach to examining work satisfaction/dissatisfaction requires recognizing teachers as individuals with specific needs as opposed to recognizing teachers as a group with similar needs.

Written comments by many male and female vocational agriculture teachers indicated a disenchantment with two factors: (a) the types of students being enrolled in secondary vocational agriculture classes, i.e., students who did not have a career goal related to vocational agriculture, and (b) the feeling that the career ladder for secondary teachers offered little opportunity for advancement. These factors indicate a need to examine how the immediate school environment and organization-wide factors can be changed or adapted in order that teachers may feel greater satisfaction with "achievement" and "opportunity for growth." The two factors identified by the respondents were not specifically identified in this study's research instrument but should be included in future research studies on work satisfaction.

Factors causing work satisfaction/dissatisfaction, for secondary male and female vocational agriculture teachers, in this study, may not be the same for vocational agriculture teachers at the post-secondary

or college level. According to Milikin (1978) there is a relationship between levels within an occupational hierarchy and work satisfaction.

Three work-related factors with which male and female vocational agriculture teachers indicated a "moderate to strong satisfaction" were "freedom to use personal judgment," "opportunity to try out new ideas," and "personal rewards from observing student growth." It can be concluded that the force of these three intrinsic factors should be capitalized upon in the recruitment of teachers, if pairing of personality and job environment is a necessary part of occupational choice, as Holland (1968) suggests. However, the dissatisfaction with salary amount should not be completely ignored in the recruitment of future teachers. The realistic information upon which an individual makes a career choice provides him/her with a basis upon which to build realistic job expectations in the future, and thereby, to receive greater work satisfaction (Macedonia, 1969) which results in a smaller number of job changes (Parnes, 1973).

There may be no one way to increase job satisfaction as the average American worker appears to seek many things simultaneously from a job. However, educational leaders who are concerned about the future supply and demand for vocational agriculture teachers must recognize that differences and similarities do exist between factors which convey satisfaction/dissatisfaction to the nontraditional and traditional career role teachers. Strategies for improvement or maintenance of the status quo for teacher satisfaction/dissatisfaction with work-related factors should not be developed until the reasons for their existence or degree of existence and the consequential effects on the

recruitment and the retention of vocational agriculture teachers have been identified.

Objective 3: To determine if differences exist in perceived future career plans held by traditional and nontraditional career role teachers in one area of vocational education, i.e., vocational agriculture.

Differences and similarities were identified between female and male vocational agriculture teachers with regard to future career plan options. It should be noted, however, that the mean scores for all career options came between "neither a probability nor improbability" and a "strong improbability," which may indicate a tendency towards a lack of a commitment by vocational agriculture teachers to specific career goals.

The differences identified between male and female future career options may be explained through the different perceptions of the two sexes. The females perceived their career pattern to be double track (part-time homemaker and teacher), interrupted (leaving teaching temporarily for full-time homemaking or further education), conventional (leaving teaching permanently for full-time homemaking), unstable (position depended on spouse's employment), and multiple-trial (leaving teaching permanently for education and a nonagriculture-related job). The males perceived their career pattern as stable (becoming a Vo-Ag department head or remaining in teaching position for immediate future) and multiple-trial (leaving teaching for farm-ranch operation or non-agriculture-related job).

Future career goals appear to coincide with the finding of

Ziegler (1969) in a study of Oregon teachers. In Ziegler's study, males tended to enter the profession as a teacher and then move up to an administrator or out of the profession. Females, however, entered teaching and then moved out of the profession to full-time homemaking. However, the female vocational agriculture teachers responses in this research study tended to imply the making of one additional move that the teachers in Ziegler's study did not--that of moving back into the profession after a break for full-time homemaking.

Considering the career plan options indicated by male and female vocational agriculture teachers, there appeared to be two potential labor pools related to equalizing the supply of and demand for teachers--the stable worker (male and female) and the worker who returns to teaching after a temporary break in employment (female). The immediate needs of the two labor pools will require two different types of inservice education, as the immediate needs of a teacher who stays in the profession will be different from those of a teacher who returns to the profession. The findings of this study indicate that as educational leaders attempt to equalize the supply of teachers with the demand, attention must be directed not only to the number of people initially entering, staying in, and leaving teaching, but also to the potential number of people reentering the profession.

The higher probability of women pursuing the dual role career option and the higher probability of men pursuing career options related to farm-ranch operation and a nonagriculture-related job imply that administrators should examine possibilities for job redesign and job enrichment. Job sharing would be one possibility that might allow

males and females to attain future goals. Some of the dissatisfaction associated with amount of salary could perhaps be eliminated by permitting a dual role option (for both men and women) related to a part-time agri-business job or part-time farming or ranching and part-time teaching. Future research instruments should include dual role paid career options, as well as the dual role career option of part-time homemaker and part-time teacher.

Male and female vocational agriculture teachers in this study did not indicate a high probability of pursuing any of the career options identified on the instrument. Reasons which may have contributed to the low probability are: (a) the teachers did not have concrete immediate and long-range career goals; and (b) the options listed did not include the specific career plans of the respondents. Future research on career plans should include: specific career options under the broad categories such as nonagriculture-related job; the addition of principal and superintendent under "administrator/supervisor;" the addition of dual role paid career options under "dual role;" a response scale that forces a choice rather than allowing the participant to be noncommittal; and a response scale which requires the rank-ordering of the career options by respondents.

Theories related to socialization of males and females, expected participation in a multiplicity of roles, and covert discrimination have been advanced as plausible explanations of differences between male and female reported career choice influence, work satisfaction, and career plans (Hollan and Gemmill, 1976). The data obtained in the present study, however, does not provide the information necessary to

arrive at a tentative explanation of differences for the subjects in the study. The nature of these differences constitute an area of inquiry for future research.

Recommendations

As a result of the findings and conclusions of this research, a number of recommendations have evolved which could aid professional educators in attempting to balance the supply and demand for nontraditional and traditional career role teachers in vocational agriculture.

- (1) It is recommended that the recruitment programs for traditional and nontraditional career role vocational agriculture teachers use a two-pronged approach, that of direct and indirect strategies focused on similarities and differences between male and female career choice influences. The direct strategy would involve continued development of programs and materials related to job opportunities in vocational agriculture, with a focus on personal interest for both males and females. The indirect approach would include programs and materials for significant others, i.e., mothers, peers, and vocational agriculture teachers, on career opportunities and the acceptability of traditional and nontraditional choice. The focus of the material should be on helping "others" in the career decision-making process. Recruitment programs for females should focus on the mothers and male peers. Recruitment programs for the males should focus on FFA, vocational agriculture teachers, and high school courses.

- (2) It is recommended that teacher educators ascertain why both male and female vocational agriculture teachers identified college course work as a positive influence on career choice in order to maintain those elements in present and future preservice offerings in agricultural education.
- (3) It is recommended that preservice and inservice teacher education continue to provide the secondary school teacher with the skills necessary to identify high school students who have an interest in vocational agriculture as a career, as well as to aid the interested student in the career decision-making process.
- (4) It is recommended that administrators examine the job content variables of feedback on performance, stress inoculation, and recognition, in relation to the nontraditional and traditional career role worker. Administrators should explore the resources available to initiate and support activities leading to the satisfaction of teacher needs at the higher levels of Maslow's needs hierarchy.
- (5) It is recommended that teacher educators examine preservice and inservice programs in vocational agriculture to determine whether or not realistic preparation for the teaching of secondary vocational agriculture is being accomplished for both the traditional and nontraditional worker. Specific factors which need examination are: (a) do male and female vocational agriculture teachers perceive recognition and feedback on performance in the same way; (b) do different needs exist between men and women with regard to orientation to the job and, if so, what can be provided in

preservice and inservice education to meet these needs; and (c) what can be done to improve the communication between the teacher leaving the job and the person taking the job with regard to responsibilities and general job duties.

- (6) It is recommended that the dissatisfaction with salary and the method of salary determination indicated by the traditional teacher continue to be examined by professional organizations and educational management. Salary is an organization-wide factor largely determined by persons external to the immediate work group.
- (7) It is recommended that teacher educators provide inservice education appropriate to the individual needs of the two potential labor pools--the career teacher, both male and female, as well as the teacher who follows an interrupted career pattern.
- (8) It is recommended that administrators examine job sharing and job enrichment possibilities that would allow both the traditional and nontraditional career role teacher to attain future teaching-related career plans, i.e., part-time teacher/part-time farming or part-time teacher/part-time homemaking.

Research Recommendations

The following recommendations are suggested for further research related to career choice, work satisfaction, and career plans of non-traditional and traditional career role teachers in vocational education:

- (1) It is recommended that a study similar to the research reported herein be conducted with nontraditional and traditional career

role teachers for all areas of vocational education.

- (2) It is recommended that factors relating to career choice influence be examined not only for differences in source and type of influence but for points of time at which factors were most influential.
- (3) It is recommended that a study examine the reasons why vocational agriculture teachers and The Future Farmers of America are more influential on male vocational agriculture teachers' career choice than on female vocational agriculture teachers' career choice.
- (4) It is recommended that research be undertaken to compare differences and similarities between work satisfaction/dissatisfaction and the consequential effect on future career plans for traditional and nontraditional career role teachers.
- (5) It is recommended that research be undertaken to explore the relationship of years of teaching experience, grade levels taught, and department size, to work satisfaction/dissatisfaction and future career plans of traditional and nontraditional teachers.
- (6) It is recommended that a study be undertaken to examine the effectiveness of job orientation in relation to stress inoculation for both male and female vocational agriculture teachers.
- (7) It is recommended that future research examine the factors which account for the perceived differences identified between nontraditional and traditional career role teachers in vocational agriculture with respect to career choice, work satisfaction, and career plans.
- (8) It is recommended that an experimental study be conducted to determine the extent to which the screening of high school students

with relation to their career goals has an impact on teacher work satisfaction and a consequential job change.

- (9) It is recommended that a study of the short- and long-range career plans of the traditional and nontraditional career role vocational agriculture teacher be made in order to determine the reasons for selecting specific future career plan options.

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APPENDICES

APPENDIX A

Pilot Test Review Team
For Validation of Instrument

Pilot Test Participants

Gary Johnson

Tony Evers

Hal Durfee

Racline Kammeyer

Annalee McGillvrey

Cindy Giacomini

Lynn Buedefeldt

Tom Wright

Kenny Goul

Johas Amoapim

Sandy Turnbow

Carolyn Rose

Bill Rohr

Ann Bauer

APPENDIX B

Pilot Test Validation Form

PILOT TEST VALIDATION
OF
VOCATIONAL AGRICULTURE TEACHER
CAREER CHOICE, WORK SATISFACTION, AND CAREER PLANS
INSTRUMENT

Your help is needed to determine the appropriateness of the instrument just completed. Please comment on the strengths and weaknesses for each item below. Please indicate suggestions for improvement on weaknesses identified. Your honest reactions are crucial to the success of this study.

COVER LETTER

- A. Format:
1. General appearance:
 2. Length:
 3. Spacing on the page:
 4. Other:
- B. Clarity of Content:
1. Purpose of study:
 2. Expectations of you as a respondent:
 3. General information--necessary versus unnecessary:
 4. Personal questions left unanswered:

INSTRUMENT

- A. Format:
1. Eye appeal:
 - a. Color:
 - b. Size of print:
 - c. Length of instrument:
 2. Variation of response patterns from Part One to Part Two and Three and then again in Part Four:

3. Spacing between items:
4. Space allowance for answers:
5. Misspelling or grammatical errors:
6. Division of Part II between page one and two:

B. Content:

1. Clarity of wording on individual items in each part:
 - a. General Information:
 - b. Career Choice:
 - c. Work Satisfaction:
 - d. Career Plans:
2. Appropriateness of the items listed under each part:
 - a. General Information:
 - b. Career Choice:
 - c. Work Satisfaction:
 - d. Career Plans:

C. Instructions:

1. Clarity of procedure(s) to follow for completion of each part:
2. Clarity of terms for rating scale responses identified under:
 - a. Career Choice:
 - b. Work Satisfaction:
 - c. Career Plans:

D. Time:

1. Indicate the approximate number of minutes it took you to complete the instrument: _____.
2. How does the number of minutes listed above compare with your initial reaction to the length of the instrument?

RETURN OF COMPLETED INSTRUMENTA. Instructions:

1. Appropriateness of placement in the cover letter:
2. Clarity of procedures to follow for return:

B. Due Date: Appropriateness of placement in the cover letter:GENERAL COMMENTS:

Thank you for your time, effort, and interest in participating in the pilot study.

Delores Kluckman

APPENDIX C

Female Vocational Agriculture
Teacher Career Choice, Work
Satisfaction, and Career Plan
Instrument

VOCATIONAL AGRICULTURE TEACHER
CAREER CHOICE, WORK SATISFACTION, AND CAREER PLANS
INSTRUMENT

CODE: _____

PART ONE - GENERAL INFORMATION DATA

INSTRUCTIONS:

Listed below are general information statements. Please select the response FOR EACH STATEMENT which most accurately represents you and/or your position. Necessary instructions are provided on each statement.

- 1) Indicate the number of years you have taught Vocational Agriculture (Vo-Ag). (Circle one appropriate number.)

1. Less than one	6. Five
2. One	7. Six
3. Two	8. Seven
4. Three	9. Years (Indicate No.)
5. Four	

- 2) Indicate the category(ies) that best describe(s) the position you have for the 1978-1979 school year. (Circle all appropriate numbers.)

1. Part-time Vo-Ag Teacher	7. Supervised Occupational Experience Program Teacher
2. Full-time Vo-Ag Teacher	8. Class Advisory (State Class)
3. Department Head, only	9. Other Assigned Duties. Please list:
4. Department Head and Vo-Ag Teacher
5. FFA Advisor
6. Continuing Education Teacher for Adults and Young Farmers

- 3) Indicate your teaching responsibilities for 1978-1979. (Circle all appropriate numbers.)

1. Exploratory Agriculture (Middle or Junior High School)	Specialized Agricultural Classes:
Core Programs	6. Agricultural Production
2. Agriculture I	7. Agricultural Supplies-Service
3. Agriculture II	8. Agricultural Mechanics
4. Agriculture III	9. Agricultural Products
5. Agriculture IV	10. Ornamental Horticulture
	11. Agricultural Resources
	12. Forestry
	13. Agriculture, Other: Please list:

- 4) Indicate the length of your present teaching contract. (Circle one appropriate number.)
 1. Nine Months
 2. Ten Months
 3. Eleven Months
 4. Twelve Months
 5.Months (Indicate No.)

- 5) Indicate the program level(s) at which you teach. (Circle all appropriate numbers.)
 1. Middle School
 2. Junior High School
 3. Comprehensive Senior High School
 4. Area Vocational School
 5. Vocational High School
 6. Other: Please list:

- 6) Indicate the number of teachers in your Vo-Ag Department. (Include yourself in the number identified.)
 1. Number of Female Vo-Ag Teachers
 2. Number of Male Vo-Ag Teachers

PART TWO - CAREER CHOICE

INSTRUCTIONS:

In this section there is a list of items that can influence career choice. Recall the time at which you were making the decision to become a Vocational Agriculture teacher. Think about each item listed. CIRCLE the rating (1, 2, 3, 4, 5, or 6) that most accurately describes the TYPE OF INFLUENCE EACH ITEM HAD ON YOUR CAREER CHOICE.

1. Not Applicable to personal situation
2. Very Negative Influence
3. Moderately Negative Influence
4. Neither (Negative nor Positive Influence)
5. Moderately Positive Influence
6. Very Positive Influence

INFLUENCE

Very Positive	Moderately Positive	Neither	Moderately Negative	Very Negative	Not Applicable
---------------	---------------------	---------	---------------------	---------------	----------------

7) Personal interest in teaching and/or agriculture	6	5	4	3	2	1
8) Father or father figure	6	5	4	3	2	1
9) Mother or mother figure	6	5	4	3	2	1
10) Siblings (brothers-sisters)	6	5	4	3	2	1
11) A non-agriculture related male teacher	6	5	4	3	2	1
12) A non-agriculture related female teacher	6	5	4	3	2	1
13) Peer of the opposite sex	6	5	4	3	2	1
14) Peer of the same sex	6	5	4	3	2	1



CAREER CHOICE CONTINUED:

INFLUENCE

	Very Positive	Moderately Positive	Neither	Moderately Negative	Very Negative	Not Applicable
15) Books or movies	6	5	4	3	2	1
16) High School courses	6	5	4	3	2	1
17) College courses	6	5	4	3	2	1
18) Work experiences in Junior or Senior High School	6	5	4	3	2	1
19) Career aptitude or interest tests	6	5	4	3	2	1
20) Relatives other than parents and brothers and sisters	6	5	4	3	2	1
21) Guidance Counselor	6	5	4	3	2	1
22) Vocational agriculture teacher	6	5	4	3	2	1
23) FFA	6	5	4	3	2	1
24) Other: Please list	6	5	4	3	2	1
25) Other: Please list	6	5	4	3	2	1

PART THREE - WORK SATISFACTION

INSTRUCTIONS:

In this section there is a list of items that can affect work satisfaction. Think about your present job in relation to EACH ITEM. CIRCLE the rating (1, 2, 3, 4, or 5) which most accurately represents your LEVEL of JOB SATISFACTION or DISSATISFACTION.

WORK SATISFACTION

WORK SATISFACTION

1. Very Dissatisfied
2. Moderately Dissatisfied
3. Neither (Satisfied nor Dissatisfied)
4. Moderately Satisfied
5. Very Satisfied

- | Very Satisfied | Moderately Satisfied | Neither | Moderately Dissatisfied | Very Dissatisfied |
|----------------|----------------------|---------|-------------------------|-------------------|
|----------------|----------------------|---------|-------------------------|-------------------|

26) Frequency with which administrator gives you feedback on work done	5	4	3	2	1
27) Freedom to use personal judgement	5	4	3	2	1
28) Extent to which administration informs you about school policies	5	4	3	2	1
29) Opportunity to advance to a position of greater responsibility in teaching and/or administration	5	4	3	2	1
30) Respect of administration for intellectual, administrative, and/or organizational skills	5	4	3	2	1
31) Amount of recognition received, compared to co-workers, for efforts and contributions	5	4	3	2	1
32) Information about job and responsibilities from prior teacher in your position	5	4	3	2	1
33) Availability of time to do justice to both career and family responsibilities	5	4	3	2	1
34) Personal rewards from observing student growth	5	4	3	2	1
35) Opportunity to try out new ideas	5	4	3	2	1
36) Number of different course preparations required	5	4	3	2	1
37) Amount of recognition given by the community for your contributions and efforts	5	4	3	2	1
38) Open, honest communication among Vo-Ag staff	5	4	3	2	1
39) Opportunity to make use of your abilities	5	4	3	2	1
40) Your salary compared to that of people with similar training in other professions	5	4	3	2	1
41) Opportunity to take part in decision making	5	4	3	2	1
42) Help received from co-workers in learning about present position and responsibilities	5	4	3	2	1
43) Respect of co-workers for intellectual, administrative, and/or organizational skills	5	4	3	2	1
44) Demand of time beyond formal school day	5	4	3	2	1
45) Amount of information you receive on job performance from administration	5	4	3	2	1
46) Personal feeling of accomplishment	5	4	3	2	1
48) Method used to determine your salary	5	4	3	2	1
48) Amount of your salary	5	4	3	2	1
49) Consider all aspects of your job as a teacher and indicate your overall level of job satisfaction	5	4	3	2	1

PART FOUR - CAREER PLANS

INSTRUCTIONS:

In this section there is a list of career options. Think about your career plans for next year (1979-1980) and also your plans for five years from now (1984-1985). For EACH ITEM below, CIRCLE the rating (1, 2, 3, 4, or 5) which most clearly represents YOUR CAREER RELATED PLANS for both (A) NEXT YEAR (1979-1980) and (B) FIVE YEARS FROM NOW (1984-1985).

NEXT YEAR

1. Strong Improbability
2. Moderate Improbability
3. Neither (a Probability nor Improbability)
4. Moderate Probability
5. Strong Probability

FIVE YEARS FROM NOW

Strong Probability	Moderate Probability	Neither (Prob. nor Improb.)	Moderate Improbability	Strong Improbability
5	4	3	2	1
5	4	3	2	1
5	4	3	2	1

Strong Probability	Moderate Probability	Neither (Prob. nor Improb.)	Moderate Improbability	Strong Improbability
5	4	3	2	1
5	4	3	2	1
5	4	3	2	1

50) Remain in present teaching position	5	4	3	2	1
51) Leave teaching and obtain a job in agri-business	5	4	3	2	1
52) Leave teaching permanently for full-time homemaker career	5	4	3	2	1

CAREER PLANS CONTINUED:

NEXT YEAR

Strong Probability
 Moderate Probability
 Neither (Prob. or Improb.)
 Moderate Improbability
 Strong Improbability

1. Strong Improbability
2. Moderate Improbability
3. Neither (a Probability nor Improbability)
4. Moderate Probability
5. Strong Probability

FIVE YEARS FROM NOW

Strong Probability
 Moderate Probability
 Neither (Prob. nor Improb.)
 Moderate Improbability
 Strong Improbability

5	4	3	2	1	53) Vo-Ag department head	5	4	3	2	1
5	4	3	2	1	54) Leave teaching and obtain non-ag related job	5	4	3	2	1
5	4	3	2	1	55) Position held depends on spouse's employment	5	4	3	2	1
5	4	3	2	1	56) Leave teaching temporarily for further education	5	4	3	2	1
5	4	3	2	1	57) Part-time Vo-Ag teacher and part-time homemaker	5	4	3	2	1
5	4	3	2	1	58) Remain in Vo-Ag teaching but change schools	5	4	3	2	1
5	4	3	2	1	59) Leave teaching for full-time farm-ranch operation	5	4	3	2	1
5	4	3	2	1	60) Leave teaching temporarily for full-time homemaker career	5	4	3	2	1
5	4	3	2	1	61) State specialist, regional coordinator, and/or local director in Vocational Education	5	4	3	2	1
5	4	3	2	1	62) Leave teaching permanently for further education and career change - Ag or non-ag related	5	4	3	2	1
5	4	3	2	1	63) Other: Please list	5	4	3	2	1
5	4	3	2	1	64) Other: Please list	5	4	3	2	1

Comments:

THANK YOU FOR PARTICIPATING IN THIS STUDY!
 If you would like the results from this study,
 please write your name and address.

Name

Address

.....

PLEASE REFOLD, STAPLE, AND MAIL
 DATE DUE: FEBRUARY 17, 1979





BUSINESS REPLY MAIL
First Class Permit No. 8 Sec. 34.9 P. L. & R. Brookings, S. D.

DELORES KLUCKMAN
305 Home Economics-Nursing Building
College of Home Economics
South Dakota State University
Brookings, South Dakota 57007



Staple here

APPENDIX D

Male Vocational Agriculture
Teacher Career Choice, Work
Satisfaction, and Career Plan
Instrument

VOCATIONAL AGRICULTURE TEACHER
CAREER CHOICE, WORK SATISFACTION, AND CAREER PLANS
INSTRUMENT

CODE: _____

PART ONE - GENERAL INFORMATION DATA

INSTRUCTIONS:

Listed below are general information statements. Please select the response FOR EACH STATEMENT which most accurately represents you and/or your position. Necessary instructions are provided on each statement.

- 1) Indicate the number of years you have taught Vocational Agriculture (Vo-Ag). (Circle one appropriate number.)
- | | |
|------------------|------------------------------|
| 1. Less than one | 6. Five |
| 2. One | 7. Six |
| 3. Two | 8. Seven |
| 4. Three | 9. Years (Indicate No.) |
| 5. Four | |

2) Indicate the category(ies) that best describe(s) the position you have for the 1978-1979 school year. (Circle all appropriate numbers.)

- | | |
|--|---|
| 1. Part-time Vo-Ag Teacher | 7. Supervised Occupational Experience Program Teacher |
| 2. Full-time Vo-Ag Teacher | 8. Class Advisory (State Class |
| 3. Department Head, only | 9. Other Assigned Duties. Please list:
..... |
| 4. Department Head and Vo-Ag Teacher | |
| 5. FFA Advisor | |
| 6. Continuing Education Teacher for Adults and Young Farmers | |

3) Indicate your teaching responsibilities for 1978-1979. (Circle all appropriate numbers.)

- | | |
|---|---|
| 1. Exploratory Agriculture (Middle or Junior High School) | Specialized Agricultural Classes: |
| | 6. Agricultural Production |
| Core Programs | 7. Agricultural Supplies Service |
| 2. Agriculture I | 8. Agricultural Mechanics |
| 3. Agriculture II | 9. Agricultural Products |
| 4. Agriculture III | 10. Ornamental Horticulture |
| 5. Agriculture IV | 11. Agricultural Resources |
| | 12. Forestry |
| | 13. Agriculture, Other: Please list:
..... |

4) Indicate the length of your present teaching contract. (Circle one appropriate number.)

1. Nine Months
2. Ten Months
3. Eleven Months
4. Twelve Months
5. Months (Indicate No.)

5) Indicate the program level(s) at which you teach. (Circle all appropriate numbers.)

1. Middle School
2. Junior High School
3. Comprehensive Senior High School
4. Area Vocational School
5. Vocational High School
6. Other: Please list:

6) Indicate the number of teachers in your Vo-Ag Department. (Include yourself in the number identified.)

1. Number of Female Vo-Ag Teachers
2. Number of Male Vo-Ag Teachers

PART TWO - CAREER CHOICE

INSTRUCTIONS:

In this section there is a list of items that can influence career choice. Recall the time at which you were making the decision to become a Vocational Agriculture teacher. Think about each item listed. CIRCLE the rating (1, 2, 3, 4, 5, or 6) that most accurately describes the TYPE OF INFLUENCE EACH ITEM HAD ON YOUR CAREER CHOICE.

1. Not Applicable to personal situation
2. Very Negative Influence
3. Moderately Negative Influence
4. Neither (Negative nor Positive Influence)
5. Moderately Positive Influence
6. Very Positive Influence

INFLUENCE

Very Positive
 Moderately Positive
 Neither
 Moderately Negative
 Very Negative
 Not Applicable

7) Personal interest in teaching and/or agriculture	6	5	4	3	2	1
8) Father or father figure	5	5	4	3	2	1
9) Mother or mother figure	6	5	4	3	2	1
10) Siblings (brothers/sisters)	6	5	4	3	2	1
11) A non-agriculture related male teacher	6	5	4	3	2	1
12) A non-agriculture related female teacher	6	5	4	3	2	1
13) Peer of the opposite sex	6	5	4	3	2	1
14) Peer of the same sex	6	5	4	3	2	1



CAREER CHOICE CONTINUED:

INFLUENCE

	Very Positive	Moderately Positive	Neither	Moderately Negative	Very Negative	Not Applicable
15) Books or movies	6	5	4	3	2	1
16) High School courses	6	5	4	3	2	1
17) College courses	6	5	4	3	2	1
18) Work experiences in Junior or Senior High School	6	5	4	3	2	1
19) Career aptitude or interest tests	6	5	4	3	2	1
20) Relatives other than parents and brothers and sisters	6	5	4	3	2	1
21) Guidance Counselor	6	5	4	3	2	1
22) Vocational agriculture teacher	6	5	4	3	2	1
23) FFA	6	5	4	3	2	1
24) Other: Please list	6	5	4	3	2	1
25) Other: Please list	6	5	4	3	2	1

PART THREE - WORK SATISFACTION

INSTRUCTIONS:

In this section there is a list of items that can affect work satisfaction. Think about your present job in relation to EACH ITEM. CIRCLE the rating (1, 2, 3, 4, or 5) which most accurately represents your LEVEL of JOB SATISFACTION or DISSATISFACTION.

WORK SATISFACTION

WORK SATISFACTION

1. Very Dissatisfied
2. Moderately Dissatisfied
3. Neither (Satisfied nor Dissatisfied)
4. Moderately Satisfied
5. Very Satisfied

- Very Satisfied
Moderately Satisfied
Neither
Moderately Dissatisfied
Very Dissatisfied

26) Frequency with which administrator gives you feedback on work done	5	4	3	2	1
27) Freedom to use personal judgement	5	4	3	2	1
28) Extent to which administration informs you about school policies	5	4	3	2	1
29) Opportunity to advance to a position of greater responsibility in teaching and/or administration	5	4	3	2	1
30) Respect of administration for intellectual, administrative, and/or organizational skills	5	4	3	2	1
31) Amount of recognition received, compared to co-workers, for efforts and contributions	5	4	3	2	1
32) Information about job and responsibilities from prior teacher in your position	5	4	3	2	1
33) Availability of time to do justice to both career and family responsibilities	5	4	3	2	1
34) Personal rewards from observing student growth	5	4	3	2	1
35) Opportunity to try out new ideas	5	4	3	2	1
36) Number of different course preparations required	5	4	3	2	1
37) Amount of recognition given by the community for your contributions and efforts	5	4	3	2	1
38) Open, honest communication among Vo-Ag staff	5	4	3	2	1
39) Opportunity to make use of your abilities	5	4	3	2	1
40) Your salary compared to that of people with similar training in other professions	5	4	3	2	1
41) Opportunity to take part in decision making	5	4	3	2	1
42) Help received from co-workers in learning about present position and responsibilities	5	4	3	2	1
43) Respect of co-workers for intellectual, administrative, and/or organizational skills	5	4	3	2	1
44) Demand of time beyond formal school day	5	4	3	2	1
45) Amount of information you receive on job performance from administration	5	4	3	2	1
46) Personal feeling of accomplishment	5	4	3	2	1
48) Method used to determine your salary	5	4	3	2	1
48) Amount of your salary	5	4	3	2	1
49) Consider all aspects of your job as a teacher and indicate your overall level of job satisfaction	5	4	3	2	1

PART FOUR - CAREER PLANS

INSTRUCTIONS:

In this section there is a list of career options. Think about your career plans for next year (1979-1980) and also your plans for five years from now (1984-1985). For EACH ITEM below, CIRCLE the rating (1, 2, 3, 4, or 5) which most clearly represents YOUR CAREER RELATED PLANS for both (A) NEXT YEAR (1979-1980) and (B) FIVE YEARS FROM NOW (1984-1985).

NEXT YEAR

FIVE YEARS FROM NOW

- Strong Probability
Moderate Probability
Neither (Prob. nor Improb.)
Moderate Improbability
Strong Improbability

1. Strong Improbability
2. Moderate Improbability
3. Neither (a Probability nor Improbability)
4. Moderate Probability
5. Strong Probability

- Strong Probability
Moderate Probability
Neither (Prob. nor Improb.)
Moderate Improbability
Strong Improbability

5	4	3	2	1	50) Remain in present teaching position	5	4	3	2	1
5	4	3	2	1	51) Leave teaching and obtain a job in agri-business	5	4	3	2	1
5	4	3	2	1	52) Leave teaching permanently for full time homemaker career	5	4	3	2	1

CAREER PLANS CONTINUED:

NEXT YEAR

Strong Probability
 Moderate Probability
 Neither (Prob. or Improb.)
 Moderate Improbability
 Strong Improbability

1. Strong Improbability
 2. Moderate Improbability
 3. Neither (a Probability nor Improbability)
 4. Moderate Probability
 5. Strong Probability

FIVE YEARS FROM NOW

Strong Probability
 Moderate Probability
 Neither (Prob. nor Improb.)
 Moderate Improbability
 Strong Improbability

5	4	3	2	1	53) Vo-Ag department head	5	4	3	2	1
5	4	3	2	1	54) Leave teaching and obtain non-ag related job	5	4	3	2	1
5	4	3	2	1	55) Position held depends on spouse's employment	5	4	3	2	1
5	4	3	2	1	56) Leave teaching temporarily for further education	5	4	3	2	1
5	4	3	2	1	57) Part-time Vo-Ag teacher and part-time homemaker	5	4	3	2	1
5	4	3	2	1	58) Remain in Vo-Ag teaching but change schools	5	4	3	2	1
5	4	3	2	1	59) Leave teaching for full-time farm-ranch operation	5	4	3	2	1
5	4	3	2	1	60) Leave teaching temporarily for full-time homemaker career	5	4	3	2	1
5	4	3	2	1	61) State specialist, regional coordinator, and/or local director in Vocational Education	5	4	3	2	1
5	4	3	2	1	62) Leave teaching permanently for further education and career change - Ag or non-ag related	5	4	3	2	1
5	4	3	2	1	63) Other: Please list	5	4	3	2	1
5	4	3	2	1	64) Other: Please list	5	4	3	2	1

Comments:

THANK YOU FOR PARTICIPATING IN THIS STUDY!
 If you would like the results from this study,
 please write your name and address.

Name.....
 Address

PLEASE REFOLD, STAPLE, AND MAIL
 DATE DUE: FEBRUARY 17, 1979





BUSINESS REPLY MAIL
First Class Permit No. 8 Sec. 34.9 P. L. & R. Brookings, S. D.

DELORES KLUCKMAN
305 Home Economics-Nursing Building
College of Home Economics
South Dakota State University
Brookings, South Dakota 57007



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APPENDIX E
Cover Letter

School of Education
Vocational-Technical
Education Division



Corvallis, Oregon 97331

February 9, 1979

Dear Colleague:

Your assistance and expertise is needed. However, let me buy you a cup of coffee while I ask you some questions on Vocational Agriculture career choice, work satisfaction, and career plans.

The information you provide will aid Agriculture teacher educators as they focus on meeting the demands for Secondary Vocational Agriculture teachers. This doctoral research study is under the direction of Dr. John Oades, Head, Agriculture Education, Oregon State University (OSU).

The enclosed instrument, designed for male and female vocational agriculture teachers, is divided into four sections, each of which is self-explanatory. Your answers will be held in strictest confidence. The code number on the instrument is for a follow-up reminder letter to non-respondents.

If you have any questions, please call me at (605) 688-4176 at South Dakota State University (SDSU). The difference between the letterhead and return address refers to my dual role of graduate student at OSU and teacher educator at SDSU.

Upon completing the instrument, please refold, staple, and mail by February 17. No envelope or postage is required.

Thank you personally and professionally for fifteen minutes of your time.

Sincerely,

Delores Kluckman
Graduate Student

P.S. Attached find the quarter for the cup of coffee "on me."

Enclosures

APPENDIX F

Non-respondent Letter

School of Education
Vocational-Technical
Education Division



Corvallis, Oregon 97331

February 15, 1979

Dear Colleague:

Your assistance is still needed. A short time ago you received an instrument on Vocational Agriculture Career Choice, Work Satisfaction, and Career Plans; so far I have not received your completed copy.

Won't you please have that cup of coffee "on me" today and fill out the copy enclosed. Your expertise is needed, not only for the success of the study and looking at factors important to meeting the demand for Vocational Agriculture teachers, but also for helping to meet the goal of a 75 percent return on the instrument.

If you have mailed the instrument received previously, please disregard this letter. Thank you for your time and interest in promoting the growth of the profession.

Sincerely,

Delores Kluckman
Graduate Student

Enclosure