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A STUDY OF CAREER GOALS OF WOMEN IN HIGH SCHOOL AGRICULTURAL EDUCATION PROGRAMS IN THE STATE OF TENNESSEE

A Thesis

Presented for the

Master of Science

Degree

The University of Tennessee, Knoxville

Robert Taylor Conder

May, 1992

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THESIS
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DEDICATION

This thesis is dedicated to my parents

Mr. Milton Dale Conder, Sr.

and

Mrs. Merry Ella Conder

who have helped me achieve my goals in life.

ACKNOWLEDGEMENT

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ABSTRACT

The purpose of the study was to determine the career goals of women in agricultural education programs in high schools in the State of Tennessee. The study also identified the demographics of the students, the reasons female students enroll in the program, and the persons who they consult for advice regarding careers.

A questionnaire was developed to meet the objectives of the study. The data, gathered for the study, were analyzed using the University of Tennessee Computing Center IBM 3081 mainframe computer and the Statistical Package for the Social Scientists (SPSS) release 4.0. Descriptive statistics and appropriate inferential tests were used in the analysis.

FINDINGS

1. A majority of students did not live on a farm and had only completed one year of agricultural education.
2. Many female students were enrolled in ornamental horticulture.
3. A majority of female students planned to go to college but not to major in agriculture.
4. Students who planned to major in agriculture chose fields such as horticulture, animal science, and veterinary medicine.
5. Students who planned to major in another field chose nursing, business, and social work.

6. Students who planned to enter the work force chose areas such as clerical and sales occupations and service occupations.

7. The study found no significant difference between students who lived on a farm and those who did not live on a farm in relation to their career goals.

8. The study found no significant difference in the students' career choice in relation to their instructional area.

9. The highest rated reason female students enrolled in agricultural education was Agriculture sounds interesting and the reason which had the least amount of influence was To compete in contests.

11. The persons students most often seek career advice were themselves and the female parent or guardian.

12. The persons students least seek career advice were the minister and the guidance counselor.

IMPLICATIONS

1. Agricultural education programs need to be structured for students with a lack of basic agriculture knowledge.

2. Female students should be made aware or career opportunities in agriculture whether they plan to go to college or enter the work force.

3. Agricultural education teachers need to capitalize on the major reason for enrolling in agricultural education.

4. Agricultural education teachers need to develop a communication system with female parents or guardians.

5. The guidance counselors need to be made aware of careers in agriculture and students need to be made aware of the role of the guidance counselors.

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CHAPTER I

INTRODUCTION AND PROBLEM

Introduction

Historically, the role of women in America's educational institutions has been marginal (Lerner, 1992). In a book written by Lerner in 1992, she stated:

> The problems women face in acquiring education were threefold: they had to win the right to learn, the right to teach, and the right to think. The right to learn implied both the right of access to educational institutions and the overcoming of institutional practices and structures which prevented the equal education of women (p.203).

The education of women was not necessarily directed toward a vocational or professional goal as it was for men (Lerner, 1992). Traditionally, all women have prepared for one career and that being a housewife. Lerner (1992) stated:

> If there is one universal fact about women, it is that until very recently the overwhelming majority of them have been engaged in domestic food preparation, maintenance of the home and clothing, and, in families with children, childrearing [sic]. Single, married, or divorced, and regardless of whether she holds a paid job or not, a woman is a housewife, at least part of her life. Whatever her station or position, unless she is wealthy enough to hire another woman to do her housework, she is a housewife. Even the wealthiest women with staffs of servants or slaves, had responsibility for managing their households (p.108).

Some women did have jobs as early as the late nineteenth century. Many of these jobs were held by immigrant women

working in sweat shops to help support their families. Some of the more elite of the immigrant women worked in offices and used the latest technology in use at that time. Some women, if they wanted jobs, became schoolteachers because it was the most logical and decent job to have. More women started working outside the home after World War I (Parmet, 1990). The concept of women working outside the home during World War I was also supported in an article by Goering (1990). Before World War I, few women had management level jobs in Extension but during the war they had to move in and fill the vacancies left by the men. When the men returned after the war, the women left the jobs and returned to being housewives or to careers stereotyped for women (Goering, 1990). In a book written by Parmet in 1990, he stated:

> Most women were more worried about holding on to what they had than in competing in a man's world. The futility of such competition was especially dramatized during the Great Depression, when married women were commonly told by employers that one breadwinner was all any family should expect. The coming of World War II, however, provided jobs for all who would toil.
>
> The change was more lasting than anyone foresaw. For more women than ever, even more than during the 1920s, found jobs outside the home.... They began to do it all, going to college, holding down jobs, and having babies (p. 448).

In the field of agriculture, women had jobs in Extension (home economics) as early as 1900 (Goering, 1990). They also had the job of farm wife. In this position, they performed many farm duties plus their duties as a wife (Jensen, 1985).

Even in the area of vocational education, women were kept more in courses considered appropriate for women (Vetter, 1985). Up until 1969, the Future Farmers of America (FFA) was an all male organization (Hillison and Burge, 1983). The main goal of FFA and agricultural education was to prepare the youth to enter the field of agriculture.

Today, more women are taking agriculture in high school and college. In 1981-82, women made up 21.9 percent of the total enrollment in agricultural education (Vetter, 1985). If agricultural instructors could understand the reason(s) why women are in agriculture and what their career goals are, they could better prepare them for the future.

Women no longer want to be just housewives or remain in careers that are stereotyped for women. Hildreth, Richard and Burts (1986) stated: "More women are entering the job market for reasons of personal fulfillment, economic necessity, or a combination of reasons" (pp. 267-268).

Women choosing agriculture may or may not come from farming backgrounds. They may just want to work in the field of agriculture, which consists of more than just farming.

Agricultural instructors must understand the career goals of females in their classes in order to better serve them and the community. The job of teaching agricultural education may tend to be more complex today than in years past, due to the fact that there are both rural and urban students enrolled

in agricultural courses. It is no longer just production agriculture, and agriculture is no longer just for males. Therefore, teachers must understand the needs of female students in order to meet their needs and goals.

Statement Of The Problem

Most people will admit that agriculture has changed over the last 20 years. During this time, agricultural occupations have changed from being predominantly filled by males to a mixture of males and females. Agricultural instructors need to be aware of the reasons women enroll in agriculture and understand their career goals. Career goals of students must be understood by vocational teachers before they can be effective. Since there are so many women enrolled in agricultural education classes the problem can be stated: What are the career goals of the female high school agricultural education students in Tennessee?

Purpose and Objectives Of The Study

The purpose of the study was to determine the career goals of female students enrolled in agricultural education in Tennessee high schools. The following objectives were developed to facilitate the purpose:

1. To identify the demographic profile of the respondents.
2. To identify the career goals of females in high school agricultural education programs in Tennessee.

3. To study the differences between female agricultural students who live on a farm and those who don't with regard to their career goals.

4. To identify the reasons females enroll in agricultural education in high school.

5. To identify females' most desired major instructional areas and relate them to their career goals.

6. To identify the person(s) female agricultural students most and least rely on for advice in choosing careers.

7. To determine the desired college majors of females, who plan to attend college upon graduating from high school.

8. To identify the desired careers of females, who plan to enter the work force upon graduating from high school.

Limitations Of The Study

The study was limited to females in high school agricultural education programs in the state of Tennessee. Due to sampling bias, it was further limited to only female students having male teachers.

Operational Definitions

The terms used in this study were defined as follows:

1. Agriculture refers to the production of plants and animals for human use. It also refers to all of the tasks from production to the consumer.

2. Agricultural Education (Ag. Ed.) refers to the formal educational program at the secondary level which offers students the opportunity to prepare for careers in agriculture or to gain knowledge of the field of agriculture.

3. Agricultural Extension refers to the non-formal educational program in agriculture which offers help and information to the farmer and others in agriculture or homemaking.

4. Career Goals refers to jobs the students plan to enter upon graduating from high school or the major they plan on pursuing upon going to college after graduating from high school.

5. Future Farmers of America (FFA) refers to the youth organization at the secondary level that is an integral part of the secondary agricultural education program. It is designed to build leadership abilities in agriculture and related skills.

6. Work Force refers to all persons that are employed at a given time on productive projects or actively seeking employment.

CHAPTER II

REVIEW OF LITERATURE

Few studies were found which dealt with females in agriculture. There have been several studies that included females in the broad field of vocational education but few in agriculture. Some articles were located that gave a history of women in agriculture and the roles they played along with their choices of careers. There have also been some studies on laws affecting females in vocational education. There have been several studies about career choices of women in college but very few at the high school level. This chapter will present studies which relate to women in the field of agricultural education and others that are closely related to this field of study.

History of Women In Agriculture

In 1969, females became members of the FFA for the first time (Hillison and Burge, 1983). This, however, was not the beginning of the history of women in agriculture. This section of the review of literature will look at the role which women have played in agriculture.

In an article by Jensen (1985), she stated, "The role that women have played in American agriculture is still not adequately understood or appreciated, nor is their role in the

development of some major U.S. institutions" (p. 13). In order to understand the role rural women played in developing these institutions, we must take a look at them.

One such institution was religion. In the late eighteenth century, Quaker farm women would travel through the colonies to bring spiritual comfort to others. In the nineteenth and part of the twentieth centuries, women did not play a leadership role but they did take care of the welfare functions and managed the maintenance of the church and moved the church toward a greater concern for the communities' welfare. In the nineteenth century, women made up a majority of the church membership. The church played a spiritual and a physical role for the rural women.

Another institution in which women played a role was education. Men lost interest in education and religion at the time that women needed the institutions the most. Therefore, women moved into and created rural educational institutions in the early nineteenth century. When the family farm moved into commercial production and the work load of the family members increased, education moved outside the home. Women helped to establish good school systems in this country and they were also willing to work for low wages (Jensen, 1985). Jensen (1985) stated, "New Mexican Fabiola Cabeza de Baca, for example, remembered being paid in eggs for her rural school teaching in New Mexico before World War I,..." (p. 17).

Women also played a role in politics. In 1848, Quaker farm women called for the first public meeting to address the political needs of women. Lucretia Mott returned home (Philadelphia) from the meeting at Seneca Falls and pushed urban women to call for a state conference. The urban women did not respond to her call but the rural women of Chester County organized the first statewide conference. Anti-slavery and temperance associations were formed also by women. Jensen (1985) stated, "...farm women flooded into the Grange, one of the first national organizations to admit women" (p.14). They also joined the Farmer's Alliances and the Populist Party. This party was the first to support women's suffrage. In 1914, when Congress created the Cooperative Extension Service, rural women also gathered to form farm organizations. Women in New Mexico organized the first Farm Bureaus. Rural women, in New Mexico, also organized to raise matching funds to pave rural roads and to organize community canneries. (Jensen, 1985).

Even though these institutions and organizations were not directly encompassed in agricultural education they were rural oriented and may have had more influence on education in agriculture than recorded. Women were actively involved in these pioneer movements that helped shape the course of history in America.

On the farm of Thomas Jefferson in 1795, black women

played a role in agriculture. They were plowers, reapers, gatherers, binders and cooks (Jensen, 1985). Jensen (1985) stated:

> When he gave the work cycle of the female workers on his farm, he said girls until 10 should serve as nurses, from 10 to 16 spin, and at 16 "go into the ground or learn trades" (p. 15).

In general, women assisted the men when necessary but rarely was the assistance returned. In other areas, women took care of the children, elderly and the ill. In addition, they cared for smaller barnyard animals such as poultry. Jensen (1985) makes the point about poultry being no small item when she stated, "In Delaware County, Pennsylvania, as early as 1848, for example, farm families raised 80,000 hens, produced 24,000 chicks, and over six million eggs a year" (p.15). Many of the tasks of this early poultry industry were performed by women. Before 1860, women milked cows and processed the butter in just about all areas of the country (Jensen, 1985). Jensen (1985) stated, "The Middle-Atlantic states alone produced 180 million pounds of butter in 1860" (p.15). Jensen was supported by the article written by Sachs (1985) when she stated:

> Not all white women on plantations belonged to the planter family. Single white women were often employed to care for poultry and dairies on plantations. Also, wives of plantation overseers [sic] were often expected to raise poultry and run a dairy (p. 34).

In addition to the above duties, women processed textiles

before factories took over the job in the early nineteenth century. They also sewed, and maintained the household (Jensen, 1985).

The agricultural role that women played can be looked at by regions. In the northern regions of the country during the eighteenth century, the population was involved in subsistence agriculture. Women usually took care of the garden, small livestock and domestic production. However, women worked in the field when there were labor shortages. As agriculture became commercialized, women kept the same duties except they produced eggs, butter and cheese to be sold. When industrialization came to the region women went to the factories to work while the men continued working in agriculture. For the most part women who worked in the factories were unmarried. When they married, they returned to the farm to take care of the domestic duties (Sachs, 1985).

In the southern region, most of the labor was done by slaves. Approximately 80 percent of the women worked in the fields and 20 percent were household servants. If the plantation was large, then the men were responsible for plowing and the women planted, hoed, and harvested the cotton. The female slaves also had to cook, care for children, sew and wash clothes. If their family had a garden, they took care of it. In the plantation system, white women managed the domestic labor force and they supervised the production,

purchase and distribution of food to the planter's family and the slaves. When slavery ended, many slaves remained tenant farmers until the cotton harvester was introduced. By 1980, farm women in the southern region were performing fewer agricultural duties than women in other regions. In Kentucky 38 percent of the women were employed off the farm and in Florida 58 percent were employed off the farm. However in the United States, only 36 percent of the farm women were employed off the farm.

In the western region, women planted, harvested, and built their homestead plus their domestic duties. In the west, women had more of an opportunity to own land as a result of The Homestead Act. Even with this, they mainly gained the land only when their husband died. In the west, a lot of the agricultural work was performed by immigrants. In California, Asian, Mexican and black women were hired as farm laborers. By 1975 in California, the harvest labor force in the tomato fields was 80 percent women (Sachs, 1985).

Women were not just farm wives. They were also involved in Extension. Before World War I, few women were in management positions in Cooperative Extension. During the war women moved into the positions left by the men. When the men returned, the women returned to homemaking or jobs that were considered appropriate for them. However, the first woman appointed to an extension management position was Martha Van

Renesslaer in New York in 1900. During the years 1910 through 1919, 29 states appointed women home economics Extension administrators (Goering, 1990). In Goering's article (1990), she wrote that the first female Home Economics Program Leader was appointed in 1914 in Tennessee. Very few women were appointed to management positions for another 50-71 years outside of home economics (Goering, 1990).

The first woman appointed to a state level administrative and management position outside of home economics was in 1915 in Michigan. According to the article by Goering (1990), the state of Tennessee had no females as State Level Managers outside of home economics. As of Spring 1989, six states still had not had a woman in the state level administrative and management positions outside of home economics.

In 1916 in Texas, the first woman was named to a district management position. Tennessee had no such position as District Director (Goering, 1990). By the Spring of 1989, women held 27 percent of the district management positions in the U.S.

In Louisiana in 1959, the first woman was appointed to a county management position. According to the article by Goering (1990), the first woman, in Tennessee, was appointed to a county management position in 1973. As of 1989, women filled 24 percent of these positions in the U.S.

In 1975, Agnes Arthaud was appointed interim State

Director of Extension in Nebraska. She was the first woman appointed to a director's position. Constance McKenna was appointed State Director of Extension in Nevada in 1976. As of the Spring 1989, all women appointed to director's positions since 1978, still were in these positions.

Merry Nell Greenwood became the first woman administrator at the federal level. She was an administrator from 1979 until 1986 (Goering, 1990).

In her 1990 article, Goering stated, "The history of appointments of women to administrative and management positions in Cooperative Extension follows closely what was happening in society in general" (p. 24).

Women In The Work Force

Wright (1990), editor of The Universal Almanac, reported that the Labor Force Participation Rate of females has doubled since the 1960's. Wright (1990) defined Labor Force Participation rate as, "...that proportion of the population that is either employed or actively seeking employment. It represents the supply of labor available for the economy" (p. 222). He stated that women were going into areas that were traditionally for men. Wright (1990) gave examples of these traditional men only fields, they were: lawyers, physicians and managers. Whittington (1990) stated the following reason for women seeking nontraditional employment:

"The economic demands of operating a household in modern society forced women to seek nontraditional employment" (p. 18). Wright (1990) listed the percentage of women employed within occupations for the years 1975, 1985, and 1989. For example, under lawyers in 1975, only 7.1 percent were females. In 1985, the figure had increased to 18.2 percent and in 1989 the figure had risen to 22.3 percent. As for the occupation of physician in 1975, 13.0 percent were females. The figure increased to 17.2 percent in 1985 and then it increased to 17.9 percent in 1989. Whittington (1990) stated in her article, "In 1974, over a quarter of all women were employed in five occupations: secretary, elementary school teacher, retail sales clerk, bookkeeper, and waitress" (p.18). Wright (1991) gave the percentage of elementary school teachers that were females in 1975 as 85.4 percent. The figure decreased in 1985 to 84.0 percent and then increased slightly to 84.7 percent in 1989. Another occupation that Wright gave was that of waiter/waitress. In 1975, 91.1 percent were females, by 1985 the figure had decreased to 84.0 percent. In 1989, the percentage of females in this occupation had decreased to 80.8 percent.

Whittington (1990) stated in her article, "By 1980 over 44 million American women constituted over 40% of the work force in the United States" (p.18). Wright (1990) stated, "In 1989, 56,189,000 women were in the U.S. civilian labor force

(57.5% of all women). Of those, 29.8 million were married, 2.7 million separated and 6.2 million divorced" (p. 222). In 1960, 30.5 percent of all married women were either employed or actively seeking employment. By 1988, the figure had risen to 56.5 percent (Wright, 1991). In his book, Parmet (1990) stated, "...during the Great Depression, when married women were commonly told by employers that one breadwinner was all any family should expect" (p. 448). As for married women with children under six, the change in their participation from 1960-88 is interesting. In 1960, 18.6 percent participated in the labor force. By 1988, the figure had risen to 57.1 percent (Wright, 1991).

Laws Affecting Women In Vocational Education (Agricultural Education)

The enrollment of females in high school agricultural education programs is relatively a new phenomenon. In 1968, a Supreme Court ruling caused the integration of women into the FFA (Thompson and McCandles, 1980). In 1969, membership into the FFA was opened to females (Hillison and Burge, 1983). In 1972, Title IX of the Education Amendments was passed to prevent sex discrimination (Vetter, 1985 and Hildreth, Richard, and Burts, 1986). Vetter (1985) defined sex discrimination as " 'any action that limits or denies a person or group of persons opportunities, privileges, roles, or rewards on the basis of their sex' " (p. 337). Title IX's

purpose was to prevent sex discrimination in educational programs and activities which received federal funds (Alexander and Alexander, 1985). Alexander and Alexander (1985) stated the following passage from Title IX:

> "No person in the United States shall on the basis of sex, be excluded from participating in, be denied the benefits of or be subjected to discrimination under any education program or activity receiving Federal financial assistance..." (p. 644).

Title IX was patterned after Title VI, which prohibited discrimination based on a persons color, race, or national origin (Alexander and Alexander, 1985). Prior to Title IX, Title VII of the 1964 Civil Rights bill was passed. It had no affect on hiring practices in education (Alexander and Alexander, 1985 and Goering, 1990). It was not until Title IX that education was affected (Goering, 1990). Then in 1976, Title II of the Education Amendments was passed to prevent sex discrimination, sex bias, and sex stereotyping (Vetter, 1985 and Sandell and Burge, 1988). Vetter defined sex bias as "Behaviors resulting from the assumption that one sex is superior to the other", and she defined sex stereotyping as "Attributing behaviors, abilities, interests, values, and roles to a person or group of persons on the basis of their sex" (p. 337).

Women In Vocational Education (Agricultural Education)

Females in vocational education have often been enrolled

in courses for females. Vetter (1985) stated:

> Women and girls enrolled in vocational education were usually enrolled in home economics, office occupations, health occupations, and distribution (or marketing and distributive education). These patterns of enrollment were based on the stereotypes of what was "appropriate" for women to be involved in and reflected their involvement in the home and the provisions of service to others in the market place (p. 336).

Today, vocational education has changed dramatically. In an 1985 article, Vetter (1985) wrote, "Nearly 17 million students were enrolled in vocational education in the United States in 1980-81,.... A little over half (51%) of the students were girls and women" (p. 335). In 1971-72, female students made up 5.4 percent of the total enrollment in agricultural education. Ten years later 1980-81, females made up 21.9 percent of the total enrollment (Vetter, 1985). Vetter was supported by Sandell and Burge's 1988 article. Sandell and Burge (1988) stated "In vocational agriculture programs, the percentage of females during that decade increased from 5.4 percent to 21.7 percent, although the increase tended to occur in selected areas such as horticulture" (p. 17). Vetter (1985) showed that all areas in agricultural education had a significant increase between 1971-1980, except for agricultural mechanics. It only showed an increase of 4.6 percent over the decade.

Why Women Choose Agricultural Education

After establishing that the number of females in agricultural education is increasing, it is important to determine why they chose agricultural education. Sproles (1987) looked at the factors for enrolling in agriculture, she found:

> The most frequent responses of the nontraditional agricultural completers were program sounded interesting (100%), thought I would like the work (85%), wanted to learn a new skill to prepare for a job (69%), and program recommended by people (62%) [emphasis added] (p. 20).

Kendall and Miller (1983) stated, "More nontraditional completers chose their program because the program sounded interesting, while traditional completers more frequently chose their program because they wanted to learn a skill" (p. 43). Sproles(1987) definition of nontraditional agricultural completers was, "...females who had completed a typically male program" (p.18).

McCracken, Barrick, and Beard (1984) looked at reasons students enrolled in vocational agriculture. Their study included both traditional and nontraditional students. They found the following reasons ranked the highest on a scale of 1 to 4 with 4 being the highest rating:

> To gain basic knowledge and skills used in agriculture (3.45), to gain knowledge and skills used in animal science (3.18), to prepare for an occupation upon graduation from high school (3.07), to gain knowledge and skills used in financial management (3.06), to gain knowledge and skills

> used in business management (2.99), reputation of the FFA chapter (2.99), and to gain knowledge and skills used in leadership (2.95) (p.51).

People From Whom Women Seek Career Advice

Before choosing a career students often seek advice or assistance from others. Therefore, it is important to determine from whom they are more likely to seek career advice and those whom they are least likely to consult for such advice. The study by Sproles (1987) found that the individual, parent and the vocational teacher were the ones chosen as the most helpful. Kendall and Miller (1983) found that the parents were influential. They stated, "However, the present study revealed that male parents were not as helpful for the nontraditional respondents" (p.43). Sproles (1987) found the guidance counselor was the least helpful in assisting with career choice. The study by Kendall and Miller found: "Over three-fourths of the nontraditional completers ... indicated that the guidance counselor was of no help to them in securing their present educational or job placement" (p.41). McCracken, Barrick, and Beard (1984) stated, "... students received positive information about vocational horticulture programs from guidance counselors, friends, and orientation programs. They received negative information from guardians and former students...."(p. 46).

Background Of Women in Agriculture

It is important to understand that students in agricultural education come from different backgrounds. It is important to understand the students' backgrounds, in order to better prepare them for their careers. In a 1985 article about women in the agricultural labor force, Dudden (1985) wrote:

> Thirty-eight percent of these women were raised in urban areas, 33 percent were raised on farms and 29 percent in small communities. This is a surprising statistic because it is believed that most women choosing professional agricultural positions come from the farm... (p. 15).

McCracken, Barrick, and Beard (1984) stated, "Students in vocational agriculture are not all children of full-time farmers" (p. 45). They found that more students are from families of part-time farmers or non-farmers.

Careers Of Women In Agriculture

Females choosing agriculture are choosing various agricultural careers. Their careers may be on or off the farms. In the 1985 article, Dudden wrote:

> Nearly 500,00 women are engaged in farm work. According to the 1978 Census of Agriculture, the first publish data on sex of farm operators, just over 128,000 of the nations 2.5 million farms are solely or principally operated by women (p.14).

According to Hoffman (1990), approximately 23,000 women were employed as managers in agriculture in 1988. The number of women employed as operators and managers has doubled since

1970. Smith (1990) stated:

> The 1987 Census of Agriculture identified 132,000 farms whose operators or senior partners were women. This represented 6 percent of all farms, and was an increase of 10,000 in 5 years, at a time when the overall number of farms was falling. A large minority of these women were widows, for nearly one-fourth of them were 70 years old or over, twice the percentage found among male farmers. Nevertheless, there are many young women farming (p. 8).

Women made up approximately 33 percent of unpaid family workers (Dudden, 1985). The National Opinion Research Center conducted a survey sponsored by the United States Department of Agriculture (USDA). The survey looked at jobs performed by farm wives in 1980-81. The National Opinion Research Center (1982) found:

> ...most had household responsibilities which often included child care, and almost a third worked at off-farm jobs. The majority had at least some responsibilities for bookkeeping, running farm errands, and caring for a home garden or for animals intended for family consumption. In addition, many performed much heavier tasks, such as operating machinery. From one-third to one-half the women were involved in fieldwork and making major farm purchases, marketing farm products, and supervising hired or family labor. On livestock operation, about two-thirds contributed to animal care, including herding livestock and milking dairy cows (p. 10).

Women also enroll in college to earn degrees in agriculture. Dudden (1985) stated, "...women comprise about one-third of the total agricultural programs [sic] in college" (p.15). Most professional women, in the agricultural labor force majored in agronomy, dairy science, agricultural engineering,

rural sociology, agricultural business, education, extension and journalism. Some women in the agricultural labor force earned degrees in fields other than agriculture (Dudden, 1985). Approximately 47 percent of women in the study by Thomas and Schiflett (1988) majored in animal science, agricultural economics, agronomy, agricultural education, wildlife and fisheries science, agricultural engineering, and range science. Approximately 38 percent of the participants majored in horticulture, recreation and parks, biology, and food science. McCracken, Barrick, and Beard (1984) stated:

> Examination of the data revealed that children of full-time farmers were more likely than the others to choose employment in production agriculture and employment in agricultural business. Children of non-farmers were less likely than the other two groups to choose to attend a 4-year college or university to study agriculture or become employed in production agriculture or in agricultural business. (p. 55).

McCracken, Barrick, and Beard (1984) found that there was no difference between male and female regarding their plans after graduation.

Summary

The history of women in agricultural education is fairly recent but the history of women in agriculture is not new. Women have been in agriculture from the very beginning. Their role has been that of a farm wife. As a farm wife, they helped create many of the institutions and organizations in

the United States. These institutions consisted of religion, education and politics. In the area of religion they provided comfort, and took care of the welfare functions and also maintained the church. In the area of education, they helped to create good school systems and they were the teachers in these schools. They also played a role in politics. They formed anti-slavery and temperance associations, joined the Grange, Farmers Alliances and the Populist Party and organized other organizations including farm bureaus.

Women performed other duties as farm wives. They took care of animals and planted and harvested the crops. Women, irrespective of their racial backgrounds, have worked in agriculture. Besides these roles they still had to maintain the house.

The role of being a farm wife was not their only role in agriculture. As early as 1900, women were employed by the Extension Service. In the beginning, they were employed primarily in the area of home economics but today they are in all areas of Extension.

Whittington (1990) talked about women in agriculture in her article. She stated:

> Women throughout history have provided much of the silent leadership in agriculture. They have made major farming decisions, scientific discoveries, and worked long, hard hours for the advancement of agriculture. Women deserve to publically [sic] work in and draw a salary from a profession where they have been a valuable part of its evolvement (p.18).

The participation of women in the work force has changed over the years. Since the 1960's their participation has doubled. Both Wright (1990) and Whittington (1990) discussed women moving into nontraditional employment. Wright (1990) listed women moving into such fields as law, medicine and management. In 1989, according to Wright (1990), 57.5 percent of all women were in the civilian labor force. Wright also stated that the number of married women either seeking employment or were already employed had increased since 1960. According to Parmet (1990), this has not always been the case.

In 1969, membership into the FFA was opened to female students. In 1972, Congress passed Title IX of The Education Amendment. In 1976, Title II was passed. The purpose of both of these laws was to prevent sex discrimination, sex stereotyping, and sex bias.

In the area of vocational education, women were often placed in areas that were considered suitable for them. According to Vetter (1985), these areas were home economics, office occupations, health occupations, and distribution. This is no longer the case. By 1980, 21.9 percent of the student enrollment in agriculture was female (Vetter, 1985).

The reasons given by women for enrolling in agriculture were: "sounded interesting", "like the work", "to learn another skill", and "it was recommended by others" (Sproles, 1987 and Kendall and Miller, 1983). McCracken, Barrick, and

Beard (1984) cited these reasons: "to gain knowledge", "prepare for an occupation", and "reputation of the FFA chapter".

Sproles (1987) found that females seek advice from themselves, parents and vocational teachers. Kendall and Miller (1983) found that the male parent was not as helpful for nontraditional female students. Sproles (1987), found the students were less likely to turn to the guidance counselor for advice.

Dudden (1985) found that women in his study came from both on and off farm backgrounds. He found that most came from a non-farm background. McCracken, Barrick, and Beard (1984) found that more students came from either part-time farming or non-farming backgrounds.

When women majored in agriculture in college, they were found in just about every area. McCracken, Barrick, and Beard (1984) found that students from a non-farm background were less likely to go into agriculture.

CHAPTER III

METHODOLOGY

Population And/Or Sample

The population for the study was all female agricultural education students in the State of Tennessee. According to the enrollment statistics there were approximately 2461 female students enrolled in the agricultural education program for the 1989-90 school year. These statistics were supplied by the Department of Vocational Education in Nashville Tennessee. The study was conducted in the Spring of 1991. The enrollment data for the 1989-90 school year were the latest available from the State Department of Education.

The following formula from McCall (1982) was used to calculate the size of the sample to be used in the study:

$$n = \pi (1 - \pi) / [(\epsilon^2 / Z^2) + \pi (1 - \pi) / N] \text{ (p. 194).}$$

According to the book by McCall (1982) the symbols mean the following:

- n is the estimated number of individuals necessary in the sample for the desired precision and confidence.
- π is the preliminary estimate of the proportion in the population.
- Z is the two-tailed value of the standardized normal deviate associated with the desired level of confidence.
- ϵ is the acceptable error, or half of the maximum acceptable confidence interval.

N is the number of individuals or entities in the population (p. 194)

The preliminary estimate of the proportion in the population (π) was set at .50 to minimize error variance (ϵ) was set at .05. The desired level of confidence was 95 percent. Therefore, Z = 1.96 (McCall, 1982).

The following is the calculation for the study:

$$n = .5\ (1 - .5) / [(.05^2 / 1.96^2) + .5\ (1 - .5) / 2461].$$
$$n = .5\ (.5) / [(.0025 / 3.8416) + .5\ (.5) / 2461]$$
$$n = .5\ (.5) / [(0.00065077) + .25 / 2461]$$
$$n = .5\ (.5) / [0.00065077 + 0.000101584]$$
$$n = .5\ (.5) / 0.000752354$$
$$n = .25 / 0.000752354$$
$$n = 332.3\ (\text{sample size is } 332)$$

The size of the sample needed for the study was 332 students under these predetermined conditions.

After determining the size of the sample, each high school in the state which had an agricultural education program was assigned a number. Using a random sample procedure, the schools were selected.

All female students in each randomly selected school were chosen until the researcher identified a sufficient number of schools to reach the needed number of students. A total of 30 schools were initially selected. Teachers at these schools were first asked to participate in a letter signed by the researcher and teacher educator. Non-respondents were contacted again by letter two weeks after the first mailing. They were also contacted by phone. Three teachers informed us

by phone that they did not want to participate. The researcher was unable to reach the other (8) teachers.

The State of Tennessee is divided into 3 sections: (1) East, (2) Middle, and (3) West. The initial random sample of schools produced ten schools from each region. The initial response rate from each region was (1) East - 100 percent, (2) Middle - 90 percent and (3) West - 30 percent. To meet the required sample size, three additional schools were randomly selected to participate. Teachers from all three additional schools agreed to participate. Two of the schools were from Middle Tennessee and one was from East Tennessee.

Teachers in 25 schools agreed to participate in the study after they were contacted in the manner described. However, data from one school were not received until after all data had been analyzed and it should also be noted that although two randomly selected schools had female teachers who agreed to participate in the study, they did not return student questionnaires even though they agreed to do so when contacted by phone. There was not enough time to select other schools to participate in the study so the resulting sample was comprised of 292 students from 22 schools. In the State of Tennessee at the time of the study, there were approximately 235 agricultural education teachers. Of these 235 teachers, approximately 7 were females (3 percent) and 228 were males (97 percent).

State enrollment data indicated that there were 453 females enrolled in the programs selected to participate in the study. This exceeded the number needed for an adequate sample of female students. However, due to three schools choosing not to participate and some errors in state enrollment data the resulting sample size was 295 (or approximately 89 percent of the needed sample size). Two hundred ninety-two usable surveys were returned from these 295 students. Three students chose not to participate. This sample was considered adequate to generalize the study findings to all female students enrolled in agricultural education programs in Tennessee with a confidence level of slightly less than 95 percent. However, no attempt was made to generalize the findings to the female students of the seven female teachers.

Instrumentation

The instrument, for the study, was in the form of a questionnaire. The questionnaire was developed by the researcher after reading related research. A copy of the questionnaire is found in Appendix B.

The questionnaire consisted of questions pertaining to (a) the demographics of the students, (b) why the students enrolled in agricultural education, (c) their major instructional area, (d) whom the students seek advice from

regarding career goals, and (e) the students career goals upon graduating from high school. All questions had closed-ended response categories from which they selected their responses. The questions, which pertained to why they enrolled in agricultural education and to whom they seek advice in regards to their careers, were rated by the student on a scale of 1 to 4. The question, which pertained to the influence that each reason had on the student enrolling, was based on the following scale: 1 = no influence, 2 = not much influence, 3 = a little influence, and 4 = a lot of influence. The question, which pertained to whom the student seeks career advice, was based on the following scale: 1 = never, 2 = not very often, 3 = pretty often, and 4 = very often.

The instrument was given to the three professors on the researcher's Graduate Committee in an effort to improve its content validity. They were allowed to make suggestions for improvement. After the committee approved the questionnaire and the proposed study, a proposal to conduct the study was sent to the Human Subjects Committee at the University of Tennessee. The Human Subjects Committee approved the study and gave permission to conduct a field test. The researcher conducted the field test at a school not selected for participation in the study. After the instrument had been field tested and changes made, the instrument was again sent to the researcher's Graduate Committee for minor changes. The

instrument was then approved for the study.

Procedure

After conducting the field test and gaining approval from the Human Subjects Committee at the University of Tennessee, a letter from the researcher's major advisor, and a consent form were sent to the schools which had been selected at random to participate in the study (See Appendix A). After receiving the consent forms from the schools, copies of the forms were sent to the Human Subjects Committee. After sending the forms to the Human Subjects Committee, the researcher sent a questionnaire packet to the teacher. The teacher was asked to distribute the questionnaires to the female students and to give the following instructions: (1) to read the letter attached to the questionnaire, (2) their participation was strictly voluntary, (3) the information will in no way be used to identify them, and (4) after completing the questionnaire, return it to the teacher. A letter from the researcher was attached to each questionnaire. The letter explained the purpose of the study and also informed them that they had a right to participate or not participate. After completing the questionnaires, they were asked to return them in the accompanying envelope. The teacher then mailed the completed forms to the researcher at the University of Tennessee (See Appendix B). Upon receiving

the questionnaires, the teachers were sent letters of appreciation for participating in the study (See Appendix C).

Data Analysis

The data, gathered for the study, were analyzed using the University of Tennessee Computing Center IBM 3081 mainframe computer and the statistical package for the Social Scientists (SPSS) release 4.0. Descriptive statistics and appropriate inferential tests were used in the analysis.

CHAPTER IV

PRESENTATION OF DATA AND FINDINGS

The purpose of this chapter is to present the findings regarding career goals of female high school students in agricultural education in Tennessee.

Demographic Data

The demographic characteristics of female high school agricultural education students in Tennessee are reported in Table I. The questions which pertained to the demographic data are:

1. What grade are you in?
2. Do you live on a farm?
3. What is the gender of your agricultural education teacher?
4. What is the number of years of high school agriculture you have completed?
5. What is your major agricultural instructional area?

The first question dealing with the demographics of the student is about their grade level. In Tennessee, agricultural education is offered at all four levels in high school: 9th (freshman), 10th (sophomore) 11th (junior) and 12th (senior). There were 292 students who responded to the study and an analysis of these students by grade level indicated: 84 (28.8 percent) were in the 9th grade, 79 (27.1

TABLE I. DEMOGRAPHICS OF FEMALE HIGH SCHOOL AGRICULTURAL EDUCATION STUDENTS IN TENNESSEE.

CHARACTERISTICS	NUMBER*	PERCENT
STUDENT GRADE LEVEL		
9th	84	28.8
10th	79	27.1
11th	60	20.5
12th	69	23.6
TOTAL	292	100.0
LIVE ON A FARM		
YES	71	24.5
NO	219	75.5
TOTAL	290	100.0
GENDER OF TEACHER		
MALE	292	100.0
FEMALE	0	0.0
TOTAL	292	100.0
YEARS OF AGRICULTURAL EDUCATION COMPLETED		
1	207	72.1
2	47	16.4
3	19	6.6
4>	14	4.9
TOTAL	287	100.0

TABLE I (Continued)

CHARACTERISTICS	NUMBER*	PERCENT
INSTRUCTIONAL AREAS:		
AGRICULTURAL PRODUCTION	45	16.5
AGRICULTURAL MECHANICS	22	8.1
AGRICULTURAL SUPPLIES	1	.3
AGRICULTURAL SCIENCE	87	31.9
AGRICULTURAL PRODUCTS	6	2.1
AGRICULTURAL RESOURCES	7	2.6
ORNAMENTAL HORTICULTURE	96	35.2
OTHER AGRICULTURE	9	3.3
TOTAL	273	100.0

*In some cases totals will not sum to 292 because students chose not to answer a question.

percent) were in the 10th grade, 60 (20.5 percent) were in the 11th grade and 69 (23.6 percent) were in the 12th grade.

The students were asked whether they lived on a farm or not and the students were given the choice of selecting yes or no. The response to this question was 290 (99 percent) students. The researcher found that 71 (24.5 percent) lived on a farm and 219 (75.5 percent) did not live on a farm.

The students were asked the gender of their agricultural education teacher. The choice was either male or female. The number of students, that responded to this question was 292 (100 percent). It was found that all teachers were male.

The students were asked the number of years of high school agriculture which they had completed. The choices were one, two, three, or four or more. The number of students which responded to this question was 287 (98 percent). The number of students which had completed one year of agricultural education was 207 (72.1 percent), 47 (16.4 percent) of the students had completed two years, 19 (6.6 percent) had completed three years, and 14 (4.9 percent) had completed four or more years of agricultural education.

The students were also asked to identify their major agricultural instructional area. The students were given the following choices: (1) Agricultural Production, (2) Agricultural Mechanics, (3) Agricultural Science,

(4) Agricultural Supplies, (5) Agricultural Products, (6) Agricultural Resources, (7) Ornamental Horticulture, and (8) Other Agriculture. The number of students which responded to this question was 273 (93 percent). Among these, 45 (16.5 percent) selected Agricultural Production; 22 (8.1 percent) selected Agricultural Mechanics; one (.3 percent) selected Agricultural Supplies; 87 (31.9 percent) selected Agricultural Science; six (2.1 percent) selected Agricultural Products; seven (2.6 percent) selected Agricultural Resources; 96 (35.2 percent) selected Ornamental Horticulture; and nine (3.3 percent) selected Other Agriculture.

Career Goals

The second objective of the study was to identify the career goals of female students enrolled in agricultural education in high school in Tennessee. In order to accomplish this objective, the students were asked whether they planned to go to college or enter the work force upon graduating from high school. Table II reports the response of the students relative to their career goals. The response to this question was 289 (99 percent) students. Among these 206 (71.3 percent) stated that they were going to go to college upon graduating from high school; and 83 (28.7 percent) stated that they were going to enter the work force.

TABLE II. CAREER GOALS OF FEMALE AGRICULTURAL EDUCATION STUDENTS IN TENNESSEE.

CAREER GOAL	NUMBER*	PERCENT
AFTER HIGH SCHOOL:		
COLLEGE	206	71.3
WORK-FORCE	83	28.7
TOTAL	289	100.0

*In some cases totals will not sum to 292 because students chose not to answer a question.

Students' Background In Relation To Their Career Goals

The third objective was to study the differences between female agricultural students who lived on a farm and those who did not, with regard to their career goals. Table III reports the findings from this analysis.

As reported in Table III, 71 of the students stated they lived on a farm. Among these, 56 (78.9 percent) planned to go to college; and 15 (21.1 percent) planned to enter the work force when they graduated from high school. Furthermore 216 of the students reported they did not live on a farm. Among these 149 (69.0 percent) planned to go to college; and 67 (31.0 percent) planned to enter the work force upon graduating from high school. Based on the data in Table III there is no reason to conclude that a significant difference exists between female students with a farming background and those without a farming background, regarding their career choice ($x^2 = 2.1$, df = 1, and p = .15). Predominantly female students in both categories chose to attend college.

Table IV continues with objective three of the study. It placed the students into two major categories: (1) Students who lived on a farm, and (2) Students who did not live on a farm. These two categories were further divided into two other categories: (1) Students who planned to major in agriculture in college and (2) Students who planned to major

TABLE III. THE BACKGROUND OF FEMALE AGRICULTURAL EDUCATION STUDENTS IN RELATION TO THEIR CAREER GOALS.

CAREER GOAL	FARMING BACKGROUND FARM N* (%)	NON FARM N* (%)
PLAN TO GO TO COLLEGE	56 (78.9)	149 (69.0)
PLAN TO ENTER WORK FORCE	15 (21.1)	67 (31.0)
TOTAL	71 (100.0)	216 (100.0)

$x^2 = 2.1$ df = 1 p = .15

Tested for significance at the .05 level (Continuity Correction was used).

*Five students in this category did not respond regarding their career choice.

TABLE IV. BACKGROUND OF FEMALE AGRICULTURAL EDUCATION STUDENTS IN RELATION TO WHETHER THEY PLAN TO MAJOR IN AGRICULTURE OR ANOTHER FIELD IN COLLEGE.

COLLEGE MAJOR	FARMING BACKGROUND FARM N* (%)	NON FARM N* (%)
AGRICULTURE	17 (30.4)	31 (20.9)
OTHER THAN AGRICULTURE	39 (69.6)	117 (79.1)
TOTAL	56 (100.0)	148 (100.0)

$x^2 = 1.51$ df = 1 p = .22

Tested for significance at the .05 level (Continuity Correction was used).

*Students who planned not to go to college would not have answered the question concerning college major.

in fields other than agriculture in college.

Among the 206 students which stated that they planned to go to college, 204 (99.0 percent)of the students responded to both of the following questions: (1) Do you live on a farm? and (2) Do you plan to major in agriculture. Among these, 56 (27.5 percent) said they lived on a farm; and 148 (72.5 percent) said they did not live on a farm. Among the 56 students who lived on a farm and planned to go to college: 17 (30.4 percent) planned to major in agriculture; and 39 (69.6 percent) planned to major in fields other than agriculture. Among the 148 students who did not live on a farm but planned to go to college, 31 (20.9 percent) planned to major in agriculture; and 117 (79.1 percent) students planned to major in fields other than agriculture. Based upon the data reported in Table IV there is no reason to conclude that a significant difference exists between female students who live on a farm and those who don't with regard to their choice of college majors ($x^2 = 1.51$, df = 1, and p = .22). Predominantly female students in both categories chose to not major in agriculture.

The researcher also compared the students background with the area of agriculture they chose to major in when attending college. However, there were not enough data to determine if there was a significant relationship between their background

and the area of agriculture they considered entering in college. The researcher also compared the background of the students, who chose not to major in agriculture, and the area they planned to major in when attending college. There were not enough data to determine if there was a significant difference. The researcher also studied the students who had chosen to enter the work force upon graduation from high school. There were not enough data to determine if there was a significant difference between their background and the area of the work force that they planned to enter.

Reasons Females Enroll In Agricultural Education

The fourth objective of the study was to identify the reasons females enrolled in agricultural education in high school. The question which accomplished this objective asked the students to: indicate the amount of influence each of these reasons may have had upon their choosing to enroll in agriculture in high school by circling the appropriate number to the right of each reason. The students were given the following choices: 1 = no influence, 2 = not much influence, 3 = a little influence, and 4 = a lot of influence. The students were given the following reasons for enrolling in agriculture: (1) Interest in a career in agriculture, (2) To meet others, (3) Agriculture sounds interesting, (4) A friend is taking it, (5) Meets an elective requirement, (6) To

compete in contest, (7) FFA's reputation, and (8) Other.

The results of this analysis are reported in Table V. The mean and standard deviation for each reason for enrolling in agricultural education were calculated. The reasons ranked in the following order: (1) Agriculture sounds interesting (mean of 2.85 and a standard deviation of .98), (2) To meet others (mean of 2.79 and a standard deviation of .99), (3) FFA's Reputation (mean of 2.43 and a standard deviation of 1.18), (4) Interested in a career in agriculture (mean of 2.40 and a standard deviation of 1.03), (5) Meets an elective (mean of 2.33 and a standard deviation of 1.12), (6) Friend is taking agriculture (mean of 2.32 and a standard deviation of 1.19), (7) To compete in contests (mean of 1.91 and a standard deviation of 1.09). The reason "other" had a mean of 3.00 and a standard deviation of 1.29. Therefore, it was the highest rated reason, but it was not one specific reason. Reasons students gave in the <u>other</u> category were it allowed them to make projects to take home and it was an easy grade.

<u>Students' Major Instructional Area In Relation To Their Career Goal</u>

The fifth objective of the study was to identify the female students major instructional area and relate them to their career goals. The first question related to this objective was: What is your agricultural instructional area?

TABLE V. REASONS FEMALE AGRICULTURAL EDUCATION STUDENTS ENROLL IN AGRICULTURAL EDUCATION IN HIGH SCHOOL.

REASONS	MEAN*	STANDARD DEVIATION
INTEREST IN A CAREER IN AGRICULTURE	2.40	1.03
TO MEET OTHERS	2.79	.99
AGRICULTURE SOUNDS INTERESTING	2.85	.98
FRIEND IS TAKING AGRICULTURE	2.32	1.19
MEETS AN ELECTIVE REQUIREMENT	2.33	1.12
TO COMPETE IN CONTESTS	1.91	1.09
FFA'S REPUTATION	2.43	1.18

*Scale ranged from no influence (1) to a lot of influence (4).

They could chose one of the following: (a) agricultural production, (b) agricultural mechanics, (c) agricultural supplies, (d) agricultural science, (e) agricultural products, (f) agricultural resources, (g) ornamental horticulture, and (h) other agriculture. The second question associated with this objective was: Upon graduating from high school, do you plan to go to college or enter the work force? They could chose between going to college or the work force. The third question was: Do you plan to major in agriculture? The choice given to the student was to either select yes or no.

Table VI deals with part of objective five. In Table VI the researcher reports the relationship between the instructional area of the student and its effect on whether the student was going to college or entering the work force upon graduating from high school. In order to determine if their was a significant difference, the researcher combined the small categories into one category called "other agriculture". The categories combined into one were: agricultural supplies, agricultural products, agricultural resources, and other agriculture. The data indicate that there were no significant differences in the students instructional area regarding whether they planned to go to college or enter the work force ($x^2 = 4.85$, df = 4, p = .30). In the area of agricultural production, 32 (71.1 percent)

TABLE VI. CAREER GOALS OF FEMALE AGRICULTURAL EDUCATION STUDENTS IN RELATION TO THEIR MAJOR INSTRUCTIONAL AREA.

CAREER GOALS	AGRI. PROD. N* (%)	AGRI. MECH. N* (%)	AGRI. SCIENCE N* (%)	ORNAM. HORT. N* (%)	OTHER AGRI. N* (%)
COLLEGE	32	16	66	61	18
	(71.1)	(76.2)	(76.7)	(63.5)	(78.3)
WORK FORCE	13	5	20	35	5
	(28.9)	(23.8)	(23.3)	(36.5)	(21.7)
TOTAL	45	21	86	96	23
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

$x^2 = 4.85$ df = 4 p = .30

Tested for significance at the .05 level (Pearson's Chi-Square was used).

*Twenty-two students did not answer questions concerning career goals.

students planned to enter college; and 13 (28.9 percent) students planned to enter the work force upon graduating from high school. In the area of agricultural mechanics, 16 (76.2 percent) students planned to enter college; and 5 (23.8 percent) students planned to enter the work force. In the area of agricultural science, 66 (76.7 percent) students planned to enter college; and 20 (23.3 percent) students planned to enter the work force. In the area of ornamental horticulture, 61 (63.5 percent) students planned to enter college; and 35 (36.5 percent) students planned to enter the work force. In the area of other agriculture, 18 (78.3 percent) students planned to enter college; and 5 (21.7 percent) students planned to enter the work force upon graduating from high school. However, as indicated in the Chi Square test these differences are not significant. Female students in all categories predominantly plan to attend college.

The next group of questions designed to help meet objective five were: (1) What is your major agricultural instructional area? and (2) Do you plan to major in agriculture? There were insufficient data to determine a significant difference with the Chi-square test when comparing students' major instructional area in high school to their plans to major in agriculture in college.

Person(s) Students Most And Least Look To For Career Advice

The sixth objective of the study was to identify persons whom females most and least rely on for advice in choosing careers. The question which accomplished this objective was: Below is a list of persons whom you may seek advice from concerning your career choices. Indicate how often you seek advice from these individuals by circling the most appropriate response to the right of each one. The students were given a key: 1 = never, 2 = not very often, 3 = pretty often, and 4 = very often. The students were given the following individuals that they might look to for career advice: (1) agricultural teacher, (2) male friends, (3) female friends, (4) guidance counselor, (5) minister, (6) "myself", (7) other teachers, (8) male parent or guardian, (9) female parent or guardian, and (10) other. In the category other, the students were ask to specify the individual.

Table VII reports the persons students most and least rely on for career advice. The mean and the standard deviation were calculated for each of these choices. The rank of the choices were: (1) myself (mean of 3.22 and a standard deviation of 1.05), (2) female parent or guardian (mean of 3.14 and a standard deviation of 1.00), (3) female friend (mean of 2.92 and a standard deviation of .98), (4) male parent or guardian (mean of 2.71 and a standard deviation of 1.12), (5) agricultural teacher (mean of 2.45 and

TABLE VII. PERSONS FEMALE STUDENTS MOST AND LEAST RELY ON FOR ADVICE IN CHOOSING A CAREER.

PERSONS	MEAN*	STANDARD DEVIATION
AGRICULTURAL TEACHER	2.45	1.03
MALE FRIEND	2.41	.92
FEMALE FRIEND	2.92	.98
GUIDANCE COUNSELOR	2.10	1.11
MINISTER	1.63	.91
MYSELF	3.22	1.05
OTHER TEACHERS	2.18	1.00
MALE PARENT OR GUARDIAN	2.71	1.12
FEMALE PARENT OR GUARDIAN	3.14	1.00

*Scale ranged from never (1) to very often (4).

a standard deviation of 1.03), (6) male friends (mean of 2.41 and a standard deviation of .92), (7) other teachers (mean of 2.18 and a standard deviation of 1.00), (8) guidance counselor (mean of 2.10 and a standard deviation of 1.11) and (9) minister (mean of 1.63 and a standard deviation of .91). The category, other, had a mean of 2.93 and a standard deviation of 1.23. The reason, for excluding the category other from the top five, was because not all of the students responded to this category.

The Desired College Majors Of Female High School Agricultural Students

The seventh objective of the study was to determine the desired college majors of females who plan to attend college. This section is divided into two sections: (a) those students who plan to major in agriculture; and (b) those students who plan to major in other fields besides agriculture.

In objective two of the study students were asked: Upon graduating from high school, do you plan to go to college or enter the work force? From the students that responded 206 (71.3 percent) students said that they plan to go to college. After students indicated that they planned to attend college, they were asked the following question: Do you plan to major in Agriculture? The students were given the choice yes or no. From the 206 students who plan to attend college, 205 (99 percent) students responded to this question. As reported

in Table VIII, the response, to whether students plan to major in agriculture in college, was 49 (23.9 percent) students said yes; and 156 (76.1 percent) students said no.

A. Students Who Planned To Major In Agriculture In College

Students were asked the question: Do you plan to major in Agriculture? Among the students which responded to this question, 49 (23.9 percent) students said yes. From the 49 students, 48 (98 percent) students responded to the question which asked: If you plan on attending college, what area of agriculture are you planning to major in?

Table IX list the responses of the students who planned to major in agriculture in college. The response to this question was: 5 (10.4 percent) students indicated that they planned to major in Agribusiness; 0 (0 percent) students indicated that they planned to major in Agricultural Economics; 2 (4.2 percent) students indicated that they planned to major in Agricultural Education; 4 (8.3 percent) students indicated that they planned to major in Agricultural Engineering; 1 (2.1 percent) student indicated that she planned to major in Agronomy; 8 (16.7 percent) students indicated that they planned to major in Animal Science; 0 (0 percent) students indicated that they planned to major in Entomology; 3 (6.2 percent) students indicated that they planned to major in Food Science; 1 (2.1 percent) student

TABLE VIII. THE PLANS OF FEMALE STUDENTS IN AGRICULTURAL EDUCATION WHO PLAN TO GO TO COLLEGE.

PLAN TO MAJOR IN AGRICULTURE	NUMBER*	PERCENT
YES	49	23.9
NO	156	76.1
TOTAL	205	100.0

*The totals only include those students who plan to go to college. Students who checked the category work force did not have to answer this question.

TABLE IX. INTENDED AGRICULTURAL MAJORS OF FEMALE STUDENTS ENROLLED IN AGRICULTURAL EDUCATION WHO PLAN TO MAJOR IN AGRICULTURE IN COLLEGE.

MAJOR	NUMBER*	PERCENT
AGRIBUSINESS	5	10.4
AGRICULTURAL ECONOMICS	0	0.0
AGRICULTURAL EDUCATION	2	4.2
AGRICULTURAL ENGINEERING	4	8.3
AGRONOMY	1	2.1
ANIMAL SCIENCE	8	16.7
ENTOMOLOGY	0	0.0
FOOD SCIENCE	3	6.2
FORESTRY	1	2.1
HORTICULTURE	10	20.8
PARKS AND RECREATION	0	0.0
PLANT SCIENCE	1	2.1
VETERINARY MEDICINE	8	16.7
WILDLIFE AND FISHERIES	4	8.3
OTHER	1	2.1
TOTAL	48	100.0

*These totals only include those students who plan to major in agriculture. One student chose not to indicate the area she planned to major.

indicated that she planned to major in Forestry; 10 (20.8 percent) students indicated that they planned to major in Horticulture; 0 (0 percent) students indicated that they planned to major in Parks and Recreation; 1 (2.1 percent) student indicated that they planned to major in Plant Science; 8 (16.7 percent) students indicated that they planned to major in Veterinary Medicine; 4 (8.3 percent) students indicated that they planned to major in Wildlife and Fisheries; and 1 (2.1 percent) student indicated that she planned to major in some other field.

B. Students Who Plan To Major In Areas Other Than Agriculture

The second part of objective seven deals with students who selected to go to college but major in areas besides agriculture. The students, who answered no to the question: Do you plan to major in Agriculture, were then asked to answer the following question: If you are not going to major in agriculture, what area do you plan to major in? The students were given the following choices: (1) Architecture, (2) Business, (3) Communications, (4) Education: Non-Agricultural, (5) Engineering, (6) Home Economics, (7) Liberal Arts, (8) Nursing, (9) Social Work, (10) Other.

According to the question do you plan to major in Agriculture, 156 (76.1 percent) students said no. These students than answered the second question if you are not

going to major in agriculture, what is your intended major? Among the 156 students which said that they did not plan on majoring in agriculture, 144 (92 percent) students selected other majors. Table X reports the intended majors of these students. The response was 3 (2.1 percent) indicated that they plan to major in Architecture; 23 (16.0 percent) students indicated that they plan to major in Business; 6 (4.2 percent) students indicated that they plan to major in Communications; 8 (5.5 percent) students indicated that they plan to major in Education: Non-Agricultural; 4 (2.8 percent) students indicated that they plan to major in Engineering; 2 (1.4 percent) students indicated that they plan to major in Home Economics; 3 (2.1 percent) students indicated that they plan to major in Liberal Arts; 31 (21.5 percent) students indicated that they plan to major in Nursing; 12 (8.3 percent) students indicated that they plan to major in Social Work; and 52 (36.1 percent) students indicated that they plan to major in "other areas". The students were asked to indicate what these areas were and they listed: Law, Medicine, and Cosmetology.

The Desired Area Of Work Of Those Students Who Plan To Enter The Work Force Upon Graduating From High School

The eighth objective of the study was to identify the desired careers of females, who plan to enter the work force. This objective relates back to objective two of the study. Objective two sought to identify the career goals of females

TABLE X. INTENDED COLLEGE MAJORS OTHER THAN AGRICULTURE OF FEMALE STUDENTS ENROLLED IN AGRICULTURAL EDUCATION WHO PLAN TO ATTEND COLLEGE.

COLLEGE MAJORS	NUMBER*	PERCENT
ARCHITECTURE	3	2.1
BUSINESS	23	16.0
COMMUNICATIONS	6	4.2
EDUCATION: NON-AGRICULTURAL	8	5.5
ENGINEERING	4	2.8
HOME ECONOMICS	2	1.4
LIBERAL ARTS	3	2.1
NURSING	31	21.5
SOCIAL WORK	12	8.3
OTHER	52	36.1
TOTAL	144	100.0

*The total reflects only those individuals who selected that the planned to go to college but did not plan on majoring in agriculture. Twelve students who selected that they did not plan on majoring in agriculture did not indicate what they planned to major in college.

in high school agriculture in Tennessee. To accomplish objective two, students were asked: Upon graduating from high school, do you plan to go to college or enter the work force? Among the 289 students which responded to this question, 83 (28.7 percent) students indicated that they planned to enter the work force upon graduating from high school. Therefore, these students were asked to respond to questions which related to the work force. This section will be divided into two parts: A. General Work Force Occupations, and B. Work Force Occupations In Agriculture. The questions which accomplish objective eight are: (1) Which occupational category best describes the work force the area you plan to enter; and (2) If you checked Agricultural, Fishery, Forestry, and Related Occupations above, which occupation best describes the area you plan to enter? The students were asked to select one of the following areas of work: (1) Professional, Technical and Managerial Occupations, (2) Clerical and Sales Occupations, (3)Service Occupations, (4) Agricultural, Fishery, Forestry, and Related Occupations, (5) Processing Occupations, (6) Machine Trades Occupations, (7) Benchwork Occupations, (8) Structural Work Occupations, and (9) Other. The second question had the following choices: (1) Plant Farming Occupations, (2) Animal Farming Occupations, (3) Fishery and Related Occupations, (4) Forestry Occupations, (5) Hunting, Trapping and Related Occupations, and (6) Other.

A. General Work Force Occupations

This section will deal with the following question: Which occupational category best describes the work force area you plan to enter? There were 83 students who indicated they plan to enter the work force. Seventy (84 percent) responded to the question about their choice of an occupational area in the work force.

Table XI lists the choices of occupations for those students who plan to enter the work force upon graduating from high school. The responses were 10 (14.3 percent) students selected the Professional, Technical and Managerial Occupations; 20 (28.6 percent) students selected the Clerical and Sales Occupations; 12 (17.1 percent) students selected Service Occupations; 8 (11.4 percent) students selected Agricultural, Fishery, Forestry and Related Occupations; 5 (7.1 percent) students selected Processing Occupations; 2 (2.9 percent) students selected Machine Trades Occupations; 0 (0.0 percent) students selected Benchwork Occupations; 2 (2.9 percent) students selected Structural Work Occupations; and 11 (15.7 percent) students selected Other Occupations. Examples, of what students listed under the other category, were child care and own their own business.

B. Work Force Occupations In Agriculture

This section will address the responses from those

TABLE XI. OCCUPATIONAL CHOICES OF FEMALE AGRICULTURAL EDUCATION STUDENTS WHO PLAN TO ENTER THE WORK FORCE UPON GRADUATING FROM HIGH SCHOOL.

OCCUPATION	NUMBER*	PERCENT
PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS	10	14.3
CLERICAL AND SALES OCCUPATIONS	20	28.6
SERVICE OCCUPATIONS	12	17.1
AGRICULTURAL, FISHERY, FORESTRY AND RELATED OCCUPATIONS	8	11.4
PROCESSING OCCUPATIONS	5	7.1
MACHINE TRADES OCCUPATIONS	2	2.9
BENCHWORK OCCUPATIONS	0	0.0
STRUCTURAL WORK OCCUPATIONS	2	2.9
OTHER OCCUPATIONS	11	15.7
TOTAL	70	100.0

*The total only reflects those students who indicated that they planned to enter the work force upon graduating from high school. Thirteen students who indicated that they planned to enter the work force did not indicate which area they planned to enter.

students who selected Agricultural, Fishery, Forestry and Related Occupations. In the previous section, students answered the question: Which occupational category best describes the work force area you plan to enter? One of the choices was Agricultural, Fishery, Forestry and Related Occupations and eight students choose this area. These eight students were then asked to answer the following question: If you checked Agricultural, Fishery, Forestry and Related Occupations above, which occupation best describes the area you plan to enter? The students were given the following choices: (1) Plant Farming Occupations,(2) Animal Farming Occupations, (3) Fishery and Related Occupations, (4) Forestry Occupations, (5) Hunting, Trapping and Related Occupations, and (6) Other Occupations. From the eight students, who answered Agricultural, Fishery, Forestry and Related Occupations, 8 (100 percent) students answered the question dealing with this area.

Table XII presents the areas these eight students chose. The responses of the students were, 2 (25.0 percent) students selected that they would go into Plant Farming Occupations; 4 (50.0 percent) students selected that they would go into Animal Farming Occupations; 0 (0.0 percent) students selected Fishery and Related Occupations; 1 (12.5 percent) student selected that she would go into Forestry and Related Occupations; 0 (0.0 percent) students selected

TABLE XII. HIGH SCHOOL FEMALE AGRICULTURAL EDUCATION STUDENTS WHO PLAN TO ENTER THE WORK FORCE AREA OF AGRICULTURAL, FISHERY, FORESTRY AND RELATED OCCUPATIONS.

OCCUPATION	NUMBER*	PERCENT
PLANT FARMING OCCUPATION	2	25.0
ANIMAL FARMING OCCUPATION	4	50.0
FISHERY AND RELATED OCCUPATIONS	0	0.0
FORESTRY OCCUPATIONS	1	12.5
HUNTING, TRAPPING AND RELATED OCCUPATIONS	0	0.0
OTHER OCCUPATIONS	1	12.5
TOTAL	8	100.0

*The total indicates only those students who planned to enter the area of the agricultural area of the work force upon graduating from high school.

Hunting, Trapping and Related Occupations; 1 (12.5 percent) student selected the category, "Other Occupations".

Discussion Of The Findings

The purpose of the study was to determine the career goals of female agricultural education students in the State of Tennessee.

The study first presented the demographics of the students. In the section on demographics, the following were studied: (1) Student's Grade, (2) Student's background, (3) Gender of the student's teacher, (4) Years of agricultural education the student had completed, and (5) The student's major agricultural instructional area. The researcher found that students came from all grades and from different backgrounds. The students all had male teachers and that the majority of students had completed only one year of agricultural education. The students in the study came from all instructional areas with most of the students in ornamental horticulture.

The students were also asked to state their intentions upon graduating from high school. Agricultural education was once intended to be vocational and prepare persons for the world of work but the findings of the study indicated that a majority of students plan to go to college. The study also compared the students' background with their career goals.

Findings from the study determined that a student's background could not be used to indicate a career goal. It was also no indication of whether the student plans to major in agriculture in college. A majority of the female students regardless of their background planned to major in fields other than agriculture in college.

The researcher wanted to determine the reason female students enroll in agricultural education. The students were asked to rate the reasons on a scale of 1-4, 1 meaning no influence and 4 meaning a lot of influence. It was found that students tended to enroll in agricultural education because agriculture sounded interesting and to meet others. The reason with the least amount of influence was to compete in contests.

The researcher wanted to determine if the students' major agricultural instructional area had any affect on the student's career goal. It was found that their instructional area had no influence on the students' career goal.

Another purpose of the study was to determine the persons females turn to for advice. The researcher found that they tended to seek advice first from themselves, then female parents or guardians and then their female friends. The persons from whom they least seek advice were the minister, guidance counselors, and other teachers.

Female students studying agriculture in high school

tended to want to attend college and go into fields other than agriculture. This was the desire of 76.1 percent of the respondents in the study. Many of the students (36.1 percent) chose the category other. They were asked to specify their choice. These students listed such areas as law, medicine and cosmetology. The students (45.8 percent) who chose one of the fields identified, tended to choose nursing, business and social work. There are students who do want to major in agriculture in college. The majority of these students (54.2 percent) chose areas such as horticulture, animal science and veterinary medicine.

The students who intended to enter the work force were asked to choose the category which best described their intended occupation. Among these students, 61.4 percent chose clerical and sales occupations, service occupations, and other occupations. There was a category agricultural, fishery, forestry and related occupations. Some students (11.4 percent) planned to enter this occupational area. Among these students who plan to enter this area, a majority (75.0 percent) plan to go into animal farming occupations, and plant farming occupations.

The researcher believes that these data can better help us understand why females take agriculture, from whom they seek advice regarding careers and what they plan to do upon graduating from high school.

CHAPTER V

SUMMARY OF MAJOR FINDINGS

Statement of the Problem

Over the last 20 years agriculture has gone through a change. The occupations in agriculture have gone from being predominantly filled by males to a mixture of males and females. Also agricultural education has changed from males only to admitting both male and females. In order to understand and meet this change, agricultural education teachers must understand the career goals of female students. By understanding their career goals, agricultural education teachers can better prepare the female students for their goals. The problem can be stated: What are the career goals of the female high school agricultural education students in Tennessee?

Purpose and Objectives

To be able to study the problem, several factors were considered. The objectives of the study were to: (1) Identify the demographic profile of the respondents; (2) Identify the career goals of females in high school agriculture in Tennessee; (3) Study the differences between female agricultural students who live on a farm and those who don't with regard to their career goals; (4) Identify the reasons

females enroll in agricultural education in high school; (5) Identify females' desired major instructional area and relate them to their career goals; (6) Identify persons female agricultural students most and least rely on for advice in choosing careers; (7) Determine the desired college majors of females, who plan to attend college upon graduating from high school; (8) Identify the desired careers of females, who plan to enter the work force upon graduating from high school.

Limitations

This study was limited to female students in high school agricultural education programs in the State of Tennessee. Further, due to sampling bias it was limited to only female students having male teachers.

Population and/or Sample of the Study

The females enrolled in agricultural education in secondary programs in Tennessee comprised the population for the study. The population was made up of female agricultural education students who attended school during the 1991 Spring Semester. The sample was drawn from the information for the 1989-90 school year supplied by the Department of Vocational Education in Nashville, Tennessee. According to the information, there were approximately 2461 female high school

students in agricultural education in Tennessee. Using the formula for determining the size of the sample for this study, the researcher found the sample size should be 332 female students. The formula used was:

$$n = \pi (1 - \pi) / [(\epsilon^2 / Z^2) + \pi (1 - \pi) / N]$$ (McCall, 1982, p.194).

After determining the size of the sample, each school was given a number. A random list of numbers were drawn and from this list schools were selected for participation.

Instrumentation

The instrument used in this study was in the form of a questionnaire. It was reviewed by the professors on the researcher's Graduate Committee and then the study was sent to Human Subjects Committee at the University of Tennessee for approval. After the Human Subjects Committee approved the study, the questionnaire was field tested at a high school not selected for participation in the study. After minor changes were made in the instructions, the questionnaire was given to the members of the researcher's Graduate Committee for final approval before sending it to the participants. A copy of the questionnaire is in Appendix B.

Procedure for Collecting Data

Before the questionnaires were sent to the schools, the teachers were sent a letter from the researcher's major

advisor and a consent form. A copy of both are in Appendix A. After the teachers returned the forms a copy of the form was sent to the Human Subjects Committee of the University of Tennessee. After the copy was sent to the Committee, a packet of questionnaires for the students was sent to the teacher with a cover letter. Also enclosed were instructions to the teacher (See Appendix B). After receiving the completed questionnaires, the teacher was sent a letter of appreciation (See Appendix C).

Data Analysis

The data for the study were analyzed using the University of Tennessee Computing Center IBM 3081 mainframe computer and the Statistical Package for the Social Scientist (SPSS) Release 4.0.

The data were reported using appropriate descriptive statistics, and inferential tests. Means were used to compare differences in obtaining data for objectives four and six. The Pearson's Chi-square test was used to test for significant relationships between specified independent and dependent variables.

Major Findings

The following is a summary based on the findings of this study.

1. The students in agricultural education were at all four

grade levels. The study showed an even distribution among the four levels.

2. The majority of females in agricultural education did not live on a farm (75.5 percent). Therefore, they did not have the traditional agriculture background.

3. Among the female agricultural students, the majority had only completed one year of agricultural education (72.1 percent).

4. The female students tended to be in two major instructional areas: a. ornamental horticulture (35.2 percent) and b. agricultural science (31.9 percent).

5. The majority of the female students in agricultural education were planning to attend college (71.3 percent) when they graduate from high school. Some students planned to enter the work force (28.7 percent).

6. There was no significant difference in career goals between students living on farms and those who lived elsewhere.

7. There was no significant difference in choice of majors between students living on farms and those who live elsewhere.

8. The major reasons (besides the <u>other</u> category) female students enroll in agricultural education were:
a. agriculture sounds interesting (mean of 2.85), b. to meet others (mean of 2.79), and c. FFA's reputation (mean of 2.43).

The study showed the reasons that had the least amount of influence were: a. to compete in contest (mean of 1.91), b. a friend is taking agriculture (mean of 2.32), and c. meets an elective requirement (mean of 2.33). The category "interested in a career in agriculture" placed in the middle with a mean of 2.40.

9. There was no significant difference in career goals among the major instructional areas of the students.

10. The persons female students often consult for career advice were: a. "myself" (mean of 3.22), b. female parent (mean of 3.14), c. female friend (mean of 2.92) and d. male parent or guardian (mean of 2.71). The persons female students least consult for career advice were: a. minister (mean 1.63), b. guidance counselor (mean of 2.10), c. other teachers (mean of 2.18) and d. male friends (mean of 2.41). The category agricultural education teacher placed in the middle with a mean of 2.44.

11. Female students who plan to go to college predominantly do not plan to major in agriculture (76.1 percent).

12. The top three choices of the students who plan to major in agriculture in college were: a. horticulture (20.8 percent), b. animal science and veterinary medicine (16.7 percent each), and c. agribusiness (10.4 percent).

13. The students who plan not to major in agriculture (76.1 percent) selected the following areas: a. other (36.1

percent), b. nursing (21.5 percent) and c. business (16.0 percent). Under the category other students listed areas such as law, medicine and cosmetology.

14. The female students who chose to enter the work force upon graduating from high school (28.7 percent) selected the following top four categories as the areas they would enter: a. clerical sales and occupations, b. service occupations, c. other occupations, and d. professional, technical and managerial occupations.

15. The female students who selected the category agricultural, fishery, forestry and related occupations (11.4 percent) under work force selected the following as their choices: a. animal farming occupation (50 percent), b. plant farming (25 percent) and c. forestry and other occupations (12.5 percent each).

Implications

After analyzing the data presented and with the changes which have taken place over the last 20 years, the following implications were drawn from the study:

1. The majority of the females comprising the population for the study did not live on farms (75.5 percent). If a farm background is basic for success in many agricultural occupations, the agricultural education programs should be structured to help these students compensate for a lack of

farm knowledge.

2. The majority of female students had only completed one year of agricultural education (72.1 percent). The agricultural education teachers need to examine their programs or recruitment procedure to determine how they can retain these students for more than one year.

3. There was an even distribution of female students in all grade levels. Since a majority of students (72.1 percent) only enrolled for one year, this indicated many of the students enrolled in upper level courses for the first time. If these students need basic knowledge in agriculture before enrolling in upper level courses then there should be basic courses for first year students and second and third level students should enroll in more advanced courses.

4. The majority of the female students tended to be enrolled in ornamental horticulture (35.2 percent) and agricultural science (31.9 percent). The agricultural education teachers should strive to adopt these courses to meet the needs of female students in their area.

5. The career plans of the female students indicated they were not enrolled in the agricultural education courses strictly for a chosen vocation. Many of the students had plans to enter college (20.9 percent) and study agriculture, others had plans to attend and not study agriculture (79.1 percent) and some had planned to seek occupations outside of

agriculture (88.6 percent). This will require that agricultural education teachers plan programs to help meet these diverse needs. It will require that the teachers teach "about agriculture" in many instances rather than to teach vocational agriculture.

6. The female students gave many reasons for enrolling in agricultural education. The top rated reason according to the mean score was, It sounds interesting (mean of 2.85). The agricultural education teachers should capitalize on this reason and strive to maintain the interest of the students and guide them toward many of the diverse occupations in agriculture, even those requiring training beyond high school for fulfilling job entry requirements.

7. The female students also listed Interested in a career in agriculture as a high choice for enrolling in agricultural education. The agricultural education teacher should also capitalize on this reason and help prepare them for selecting a course in agriculture according to their choice.

8. The female students tended to rely on themselves for career advice. Therefore, the agricultural education teacher needs to make sure that all students are given instructions on the diversity of careers in the field of agriculture. They also relied heavily on the female parent or guardian for advice on career choices. The agricultural education teachers should establish a good communication system with these

persons in keeping them informed on career opportunities in agriculture. This could be one of the activities conducted during supervisory visits to the homes of the students.

9. The agricultural teacher was ranked in the middle (mean of 2.45) as the individual female students consult for career advice. The agricultural teacher needs to make sure that the students are aware of careers in agriculture and to reinforce his/her role to aid students in career exploration.

10. The guidance counselor was rated low (mean of 2.10) as the individual female students consult for career advice. The guidance counselors need to be made aware of careers in agriculture. The agricultural education teachers need to make sure that the guidance counselors are supplied with information on careers in agriculture. Students need to also be made aware of the guidance counselors and their role in the school.

11. Many of the female students who plan to enroll in college were not planning to major in agriculture (76.1 percent). The agricultural education teacher should inform them of the many opportunities in agriculture that are available for women with a college education.

12. Many of the female students plan to enter occupations outside of agriculture (88.6 percent). This could be interpreted two ways: a. maybe the students were not sincere

in enrolling in agricultural education with an interest in agriculture (approximately 48.3 percent cited this reason as having no influence or not much influence on their reason for enrolling in agricultural education) or b. they had not been fully informed of the opportunities for females in agriculture. If they enrolled without sufficient interest in the field of agriculture, maybe the guidance counselors should have recommended they consider some other area of study (approximately 21.9 percent had an interest in nursing as a career and 28.6 percent had an interest in clerical and sales occupations).

Recommendations for Further Study

The following are recommendations for further study:

1. A similar study needs to be conducted to determine if a difference exist between male and female students in relation to their career goals, reason for taking agricultural education and to whom they consult for career advice.
2. A similar study needs to be conducted with female students in agriculture at the college level to determine how they rate their agricultural education experience in preparing them for college and also to determine if they even took agricultural education in high school, and if not, why.

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APPENDICES

APPENDIX A

TO: Selected Agricultural Education Teachers in Tennessee

FROM: Dr. John D. Todd, Professor
Agricultural and Extension Education

Mr. Robert T. Conder, Graduate Student
Agricultural and Extension Education

DATE: January 29, 1991

SUBJECT: Approval to Cooperate With a Study of Selected Agricultural Education Students in Tennessee

Robert Conder, a graduate student in agricultural and extension education, is making plans to conduct a research study as a partial requirement for a Master's Degree that would sample high school students in Tennessee. The study is entitled, "A Study of Career Goals of Women in High School Agricultural Education Programs."

Mr. Conder has received a list of all high schools in Tennessee that have females enrolled in agricultural education programs. He has randomly selected 30 of these programs for the study and your program was one of those selected. I can assure you there are not any questions in the instrument that are controversial or will place the student at risk. All questions relate to career goals and ambitions of the students in the field of agriculture or other fields.

Before conducting the study, we must have your signed approval to permit us to survey the selected females from your program. This is in compliance of a requirement of the Human Subjects Committee of The University of Tennessee. If approval is received for cooperating with the study, packet of survey forms will be mailed to you. The survey form will be comprised of a questionnaire that has been field tested. There will be one for each female in your program. You will be asked to let each female complete the survey form, and upon completing all, send them back with pre-paid postage to this department.

The questionnaire will be brief and easy to administer. It will only take 10-15 minutes to complete. The students should be told that their participation is voluntary and that they can discontinue with completing the instrument at any time they wish.

Mr. Conder has selected a very timely study for his thesis. I hope that you will cooperate. We will send all cooperating teachers a summary of the findings. The information given by the respondents will be kept confidential and their names will not be listed in the study. Only the names of the cooperating schools will be made known.

Mr. Conder is a very able graduate student. He is a resident of Jackson, Tennessee and received his baccalaureate degree from the University of Tennessee - Martin. He is currently satisfying certification requirements by completing student teaching at Horace Maynard High School with Mr. Paul Byerley as cooperating teacher. He plans to teach agricultural education in a high school in Tennessee.

If you will cooperate with the study, please return a note in the enclosed stamped envelope indicating that you will participate. This note should be on school letterhead stationery or on the enclosed note with a school stamp. The Human Subjects Committee must verify that the signed approval was officially from the school. All you would need to say on the approval letter would be that you will cooperate with the study being conducted by Robert Conder. We hope to receive all approval forms in time to complete the study during the Spring Semester, 1991.

/k

Enclosure

TO: Robert Conder, Graduate Student
Agricultural and Extension Education

Dr. John D. Todd, Professor
Agricultural and Extension Education

DATE: January 28, 1991

SUBJECT: Approval for Cooperating With the Requested Study

I will cooperate with the study being conducted by Robert Conder entitled "A Study of Career Goals of Women in High School Agricultural Education Programs." I will administer the survey instruments and upon completing, return them as requested. I grant permission for the females enrolled in my program to be respondents for the study.

Signed_____

School_____

APPENDIX B

March 11, 1991

Dear Agricultural Education Teacher:

I want to thank you for participating in this study. Enclosed you will find questionnaires for each of your female students. Please distribute the questionnaires to the students and read them the following instructions:

INSTRUCTIONS TO STUDENTS:

1. Please read the letter on top of the questionnaire before completing it.

2. Your participation is requested but is strictly voluntary.

3. The information will in no way be used to identify you.

4. After completing the questionnaire, please return it to your teacher.

After the students have completed the questionnaires, please put them into the pre-addressed stamped envelope and return them to me. Also, at the bottom of this letter, please indicate the total number of students who received a questionnaire and the number who chose not to complete it. I would appreciate it if you could return these by **March 30, 1991.**

Again, thank you for your and your students' participation.

Sincerely,

Robert T. Conder, Graduate Student
Agricultural and Extension Education

RTC/jmk

Enclosures

TOTAL NUMBER OF QUESTIONNAIRES WHICH WERE DISTRIBUTED _____

TOTAL NUMBER OF STUDENTS WHO CHOSE NOT TO PARTICIPATE _____

February 26, 1991

Dear Student:

Your school has been selected to participate in research regarding female agricultural education students. The title is "A Study of Career Goals of Females in High School Agricultural Education Programs." Your participation in this study will be greatly appreciated and will be of value to the study. By participating in this study you can help us understand the career goals of women in agricultural education and why you are in the program. This information can help teachers to plan a better program to meet your needs and can also help us attract more women like yourself into agriculture. The questionnaire will also help us to understand who you look to for advice st that we can provide them with information about careers in agriculture so that you can reach your career goal. The information will also help us to see who you least turn to so that we can improve the communication lines between you and them.

The questionnaire will take approximately 10-15 minutes of your time. However, your participation in the study is strictly voluntary, therefore, if you elect not to participate, then you can turn your questionnaire in and no questions will be asked. If you do participate, then the information will not be used in a way that will identify you and the information you provide will be kept confidential. Please do not put your name on the questionnaire. If you do fill out the questionnaire, this will inform me that you have agreed to participate in the study. At the top of the questionnaire you will notice a number. The first three numbers are used to identify the school and the last numbers identify the questionnaire. The school numbers informs me which schools responded and the questionnaire number lets me know how many students participated.

Again your help is needed and I appreciate you taking the time to fill out the questionnaire. After completing the questionnaire, place it in the envelope to be returned to me. Thank you for you help and cooperation.

Sincerely yours,

Robert Taylor Conder, Graduate Student
Agricultural and Extension Education

RTC/jmk

QUESTIONNAIRE CONCERNING CAREER GOALS OF FEMALES IN HIGH SCHOOL AGRICULTURAL EDUCATION

***All replies to questions on this form will remain confidential and your identity shall remain anonymous.**

(1) School Name _____

(2) What grade are you in? ____ 9 ____ 10 ____ 11 ____ 12

(3) Do you live on a farm? ____ Yes ____ No

(4) Is your high school agricultural teacher male or female (circle one) MALE FEMALE

(5) Indicate the amount of influence each of these reasons may have had upon your choosing to enroll in agriculture in high school by circling the appropriate number to the right of each reason. Use the following key to select your answer:

KEY: 1 means No Influence
2 means Not Much Influence
3 means A Little Influence
4 means A Lot of Influence

	No Influence			A Lot of Influence
Interest in a career in agriculture	1	2	3	4
To meet others	1	2	3	4
Agriculture sounds interesting	1	2	3	4
A friend is taking it	1	2	3	4
Meets an elective requirement	1	2	3	4
To compete in a contest	1	2	3	4
FFA's reputation	1	2	3	4
Other (Please specify) _____	1	2	3	4

(6) Number of years of high school agriculture you have completed: (Select one)

____ 1 ____ 2 ____ 3 ____ 4 or more

(7) What is your major agricultural instructional area? (Select only one)

_____ Agricultural Production
_____ Agricultural Mechanics
_____ Agricultural Supplies
_____ Agricultural Science
_____ Agricultural Products
_____ Agricultural Resources
_____ Ornamental Horticulture
_____ Other Agriculture (Please specify) _____

(8) Below is a list of persons whom you may seek advice from concerning your career choices. Indicate how often you seek advice from these individuals by circling the most appropriate response to the right of each one. Use the following key to select your answer:

KEY: 1 means NEVER
2 means NOT VERY OFTEN
3 means PRETTY OFTEN
4 means VERY OFTEN

	Never			Very Often
Agricultural Teacher	1	2	3	4
Male Friends	1	2	3	4
Female Friends	1	2	3	4
Guidance Counselor	1	2	3	4
Minister	1	2	3	4
Myself	1	2	3	4
Other Teachers	1	2	3	4
Male Parent or Guardian	1	2	3	4
Female Parent or Guardian	1	2	3	4
Other (Please specify) _____	1	2	3	4

(9) Upon graduating from high school, do you plan to go to college or enter the work force? (Select only one)

_____ College _____ Work Force

*IF YOU CHECKED WORK FORCE, SKIP TO QUESTION 12.

(10) Do you plan to major in Agriculture?

_____ Yes _____ No

*IF YOU CHECKED NO, SKIP TO QUESTION 14.

(11) If you plan on attending college, what area of agriculture are you planning to major in? (Select only one)

_____ Agribusiness
_____ Agricultural Economics
_____ Agricultural Education
_____ Agricultural Engineering
_____ Agronomy
_____ Animal Science
_____ Entomology
_____ Food Science
_____ Forestry
_____ Wildlife and Fisheries
_____ Horticulture
_____ Veterinary Medicine
_____ Plant Science
_____ Parks and Recreation
_____ Other (Please specify) _____

*IF YOU ANSWERED QUESTION 11, STOP. (DO NOT COMPLETE THE REMAINING QUESTIONS.)

(12) Which occupational category best describes the work force the area you plan to enter? (Select only one)

_____ Professional, Technical and Managerial Occupations
_____ Clerical and Sales Occupations
_____ Service Occupations
_____ Agricultural, Fishery, Forestry and Related Occupations
_____ Processing Occupations
_____ Machine Trades Occupations
_____ Benchwork Occupations
_____ Structural Work Occupations
_____ Other (Please specify) _____

(13) If you checked Agricultural, Fishery, Forestry and Related Occupations above, which occupation best describes the area you plan to enter? (Select only one)

_____ Plant Farming Occupations
_____ Animal Farming Occupations
_____ Fishery and Related Occupations
_____ Forestry Occupations
_____ Hunting, Trapping and Related Occupations
_____ Other (Please specify) _____

***IF YOU ANSWERED QUESTIONS 12 OR 13, STOP. DO NOT COMPLETE THE REMAINING QUESTION.**

(14) If you are not going to major in agriculture, what area do you plan to major in? (Select only one)

_____ Architecture
_____ Business
_____ Communications
_____ Education: Non-Agricultural
_____ Engineering
_____ Home Economics
_____ Liberal Arts
_____ Nursing
_____ Social Work
_____ Other (Please specify) _____

THANK YOU FOR YOUR TIME AND COOPERATION IN FILLING OUT THIS QUESTIONNAIRE.

APPENDIX C

April 2, 1991

To: Agricultural Education Teachers

I am writing to inform you that I have received your surveys. I want to thank you and your students for your help and time. As soon as the study is completed, I will send you a copy.

Again, thank you for your participation.

Sincerely,

Robert T. Conder, Graduate Student
Agricultural and Extension Education

RTC/jmk

VITA

Robert Taylor Conder was born on February 1, 1964 to Milton Dale and Merry Ella Conder of Jackson, Madison County, Tennessee. He attended Jackson Central Merry High School, where he was a member of the National Honor Society. He graduated from high school in 1982. He attended Jackson State Community College at Jackson, Tennessee, where he began his formal education in agriculture under James (Buddy) D. Harris Jr. He received an Associate of Science Degree in Agriculture. While at Jackson State Community College he received the F.E. Wright Scholarship in Agriculture, served as secretary of the Agricultural Club and vice-president of the Agricultural Club. Upon graduating from Jackson State, he received the W.S. Hamilton Award for Outstanding Agricultural Graduate. He graduated Cum Laude from Jackson State in 1984.

After graduating from Jackson State, he transferred to the University of Tennessee, Martin. He received a Bachelor of Science Degree in Agriculture in June, 1987 with a major in Animal Science.

He entered the University of Tennessee, Knoxville, in August 1989 and worked in the Department of Agricultural Economics and Rural Sociology for Dr. Larry VanTassell. In 1990, he was a Graduate Assistant in Agricultural and Extension Education Department. He was initiated into Gamma

Sigma Delta, The Honor Society of Agriculture, and Pi Lambda Theta, The National Honor and Professional Association in Education in November 1990. In January 1991, he was a student teacher at Horace Maynard High School in Maynardville, Union County, Tennessee under the supervision of Paul Byerley and Steve Massengill.

He is currently a full time graduate student in Agricultural and Extension Education and a substitute teacher at Horace Maynard High School.