

FEMALE AGRICULTURAL EDUCATORS IN GEORGIA

John C. Ricketts, University of Georgia
Rhonda Stone, Coffee County High School
Elaine Adams, University of Georgia

Abstract

Nationally, there is a gap between the number (43%) of newly qualified and potential agricultural education teachers that are female and the number (22%) of female agriculture teachers (Camp, Broyles, & Skelton, 2002). This non-experimental and descriptive survey was designed to determine the demographics of female agricultural educators in Georgia (N=70), and to determine their self-perceptions regarding acceptance by others in the profession in an effort to close the aforementioned gap. The average female agricultural educator in Georgia was 32 years old, had never married or was married with one child, had a Masters degree and six years of teaching experience, had previous experience with either the FFA or 4-H in high school, had previous experience in some agricultural industry area, spent an average of 43 hours a week completing her professional duties with an additional 23 hours dedicated to personal and family obligations. Additionally, she contacts her female mentor (another agricultural educator) on a daily or weekly basis through e-mail. Georgia female agricultural educators were rather indifferent about their gender as a barrier. In fact, females in this study were satisfied with their careers and felt accepted by students, administrators, parents of students, and the community. Recommendations include using the results of this study to recruit female teachers into the profession, more effective use of volunteers and resources (Foster, 2003), and a more formal system of mentoring for female agricultural educators (Foster, 2001).

Introduction and Theoretical Framework

Agriculture education programs were originally designed for males and have been traditionally male dominated since their creation, forming an “attitudinal bias” against women in the profession (Foster, 2001, p. 384). When the National FFA Organization was established in 1928, it was a social outlet and club for male students enrolled in Vocational Agriculture classes. It was not until well after the Civil Rights movement that women were allowed membership. With the admission of women into the program in 1969, Vocational Agriculture changed dramatically. As female enrollment increased, many male teachers seemed uncomfortable in dealing with the new dynamic of females in the program (Foster, 2001). The need for female agriculture educators surfaced and was soon to be reinforced by developing issues such as socio-economic changes, legislation, and court decisions mandating nondiscriminatory practices in education. As a result, women began to consider educational occupations that had traditionally been male intensive (Ries, 1980). Agricultural education, a traditionally male occupation, became a viable career option for women (Cano, 1990).

Even though agricultural education was now a viable career option for women, these women found difficulty in breaking down gender barriers, dispelling myths about their abilities, and establishing their worth. Agriculture is perceived by the general public to be a male career choice even though the influence of women is far-reaching (Webb & Iverson, 1994). When women began being accepted into agriculture education, there was still the unfounded bias that women were only suited to teach horticulture classes, because employers and other agriculture educators rationalized that women could not physically handle other agricultural areas, that others would not accept women within other areas, that marriage would end women’s professional careers, and that women would be a distraction for men within the workplace (Whent, 1994). Foster reported that at the end of each school year when contracts were brought before her local Board of Education, a school board member approached her annually to say, “You’ve done an outstanding job this year. Both my children love your classes and I believe they have learned a great deal. However, I want you to know that I voted against re-hiring you because I believe a woman’s place is in the home” (Foster & Conrad, 1998, p. 19). In times like these a female mentor is helpful. According to Whittington (1988) failure to provide necessary support (like a mentor) can cause women to leave non-traditional professions like agriculture teaching. Mentorship level (Burlew, 2005) or the quality of mentorship is associated job satisfaction (Chao, Walz, & Gardner, 1992).

However, a review of the literature and a review of many states’ teacher directories may suggest that a woman’s place is in the agricultural education classroom. Gregg, Hampton, and Juergenson (1975) concluded “women do not have any more problems in the classroom than men and that contrary to common belief, women are accepted in the community, even though in most areas, agriculture teaching is still considered to be a man’s profession” (p. 272). Cano (1990) reported that male teachers perceived female teachers as competent to teach agricultural subject matter. Fortunately, as perceptions of female agricultural educators change, more women are seeking to enter the profession.

The number of female agriculture teachers has risen in recent years (Knight, 1987; Camp, 1998, Camp, et al., 2002), and extrapolation of Camp’s, et al. 2002 data reveals that 43 percent

of the newly qualified potential teachers that graduated in 2001 were female. According to The United States Department of Labor's (2005) statistics, females make up 46.48 percent of the total United States workforce, meaning that the percentage of trained agriculture teachers that are female almost equals the percentage of females that are represented in the workforce in America. These numbers are encouraging, but there seems to be more to the story.

In summarizing Foster's (2003) report of national datum, Knight (1987) found approximately five percent of secondary agriculture teachers to be female, and Camp et al. (1998, 2002) found the number to be 15.8 percent and 22 percent, respectively. Although the numbers of female agriculture teachers are rising, and the number of newly trained and potential female agriculture teachers is noteworthy, only 22 percent of secondary agriculture teachers are female. One-fifth is not equality. What is happening to females that at one point decided they wanted a career in agricultural education?

The need for female agricultural educators is great since 38% of the National FFA Organization's membership is female. In fact, those females hold greater than 50% of state leadership positions across the country (National FFA, 2005). Today's agricultural education professionals are teaching, training, developing, and working with female and male students (Sibiga & Mannebach, 1997) on an almost equal basis.

Educational and hiring institutes are continuing to open their doors to female educators, but are not retaining as many women as men within the field. An Iowa State University study (Carter, 1992), reported that from 1980 to 1985 fewer females than males took initial jobs related to their majors and more females started at lower salaries. In addition, females were not as satisfied with their current positions and felt uncomfortable or hindered in the workplace because of their gender, supervisors' demands for overtime, and child care issues (Carter, 1992). Whent surmised that there are subtle and blatant embedded biases that limit the acceptance of women within agriculture education programs and that most agriculture educators are unaware of these biases (Whent, 1994).

Foster, Pikkert and Husmann (1991) studied self-perception of gender bias among women agriculture educators, and concluded that female agriculture teachers were satisfied in their current positions. However, Foster, et al. also determined gender bias was viewed as a deterrent to women entering the agricultural education profession. In fact, significant factors that have been found to contribute to the occupational success or failure of a female include: the pressure or support received from co-workers, family members, and friends, and level of perceived discrimination and sexual harassment (Cano, 1990). Cano reported findings from Kane (1978) and Knight, Henderson, and Ries (1980), which suggested that the major concern shared by women who teach agricultural education, was acceptance by their co-workers, namely male agricultural educators. Despite these problems, Foster's (2001) national study indicated that the vast majority of women loved their work.

The theoretical framework for this study is based on Bandura's (1977) Self-efficacy Theory. According to Bandura, self-efficacy expectations refer to a person's beliefs concerning his or her ability to successfully perform a given task or behavior such as teaching agriculture. Low self-efficacy expectations of a behavior lead to less frequency of performing the behavior

and sometimes avoidance of the behavior. Furthermore, Bandura articulated four sources of information through which expectations can be learned and/or modified. These sources of information include experience (i.e. as with others in the agricultural education profession), modeling (i.e. as from a mentor), verbal persuasion (i.e. as from community leaders), and physiological provocation. Betz and Hackett (1981) extended Bandura's theory into career-related behaviors, specifically to help clarify the continued under representation of women in historically male subjugated careers, like agricultural education. In an effort to contribute to growth of female agriculture teachers in Georgia and to thwart the attrition of these educators through recruitment and counseling, this study was conducted to determine the demographics and self-perceptions of female agricultural educators in Georgia.

Purpose and Objectives

The primary purpose of this study was to identify current female agricultural education teachers in Georgia and to develop a demographic profile for those women. Additionally, this study sought to describe the perceived self-perceptions of female agricultural educators in Georgia. Specific objectives for the study were as follows:

1. Describe female Agricultural Educators in Georgia according to selected personal qualities/characteristics.
2. Describe the mentors of these female Agricultural Educators and the level of support received from other women in the field as perceived by the respondents.
3. Describe female agricultural teachers' self-perceptions regarding acceptance by others in the profession.

Methods and Procedures

Participants and Instrumentation

The population of this study was all female agricultural educators (N = 70) in Georgia. Fifty-nine participants responded to request for participation from the researchers, yielding an 84.29% response rate. The instrument was adapted from and similar to Foster's 2001 and 2003 national surveys, which described female agricultural educators in the profession. Educational experts of both sexes and multiple academic disciplines reviewed the instrument for content and face validity. As with the Foster studies, reliability was not calculated, because "...asking about many personal attributes and behaviors produces very little measurement error" (Salant & Dillman, 1994, p.87).

Design and Procedures

Survey research was implemented for this non-experimental and descriptive study. Specific demographic variables of interests were female teachers' years experience, educational level, time expenditures in the classroom, time expenditures on the job not in the classroom, time

expenditures with family, previous industry experience, subject matter taught, age, marital status, and number of children. Two additional variables, teachers' self-efficacy and teachers' level of mentor support were also evaluated.

The survey was administered and data was collected at local agriculture teachers meetings hosted by the State Department of Education. The Statistical Package for the Social Sciences (SSPS 10.1) was used to analyze the data. Means and standard deviations were computed on all questions requiring an agreement rating response.

Findings

Objective one: Demographic Profile

Twenty one percent of Georgia teachers are female. Of the 84% that responded to this the survey, 43% were married and 44% have never been married. Among the respondents, 5% were divorced, 8% were divorced and remarried, and 34% had children. Ages ranged from 23 to 51 with an average age of 32.45 years. Forty percent of respondents had taught 1-5 years, 15% had taught 6-10 years, 10% had taught 11-15 years, 7.5% had taught 16-20 years, and 7.5% had taught over 20 years.

Fifty-one percent of respondents had agricultural education courses in high school and were former members of The National FFA Organization. Sixty-six percent of the respondents conveyed previous experience in some area of the agricultural industry. Thirty-six percent of the women held Bachelors degrees, 44% held Masters degrees, 17% held Specialist degrees, and 3% held Doctoral degrees.

Respondents reported a variety of subjects taught. Topics most frequently taught by women were FFA/Leadership/SAE (75%), Greenhouse Production (69%), and Landscape Design (69%). Topics least likely taught by women were Aquaculture (15%) and Agricultural Business/Marketing (16%). Table 1 details the courses taught by female Georgia agricultural educators.

In addition to time in the classroom (22.5 to 30 hours per week), female agricultural education teachers spend an average of 21 hours per week on related activities. Participants reported weekly averages of seven hours preparing for class, seven hours on FFA activities, five hours on SAE visits, two hours in committee meetings, and 11 hours on other work-related activities. With all activities combined, these women of agricultural education in Georgia obligated 43 hours per week to their career. Respondents spent 23 hours per week on personal/family-related activities, an average of six hours for house/yard work, ten hours for family obligations, two hours for healthcare, three hours for religious activities, and two hours for activities for their own children's education.

Table 1
Subject matter taught by respondents ($\mu = 59$)

<u>Subject</u>	<i>n</i>	%
FFA/Leadership/SAE	44	74.58
Greenhouse Production	41	69.49
Landscape Design	41	69.49
Floral Design	36	61.01
Plant Science	36	61.01
Animal Science	30	50.85
Forestry	25	42.37
Natural Resources	23	38.98
Agricultural Mechanics	20	33.90
Soil Science	18	30.51
Companion Animals	15	25.42
Nursery Production	12	20.34
Food Science	11	18.64
Other	11	18.64
Agricultural Business/Marketing	9	15.25
Aquaculture	8	13.56

Objective two: Mentors and Support Systems

Most (85%) female agricultural educators reported some type of regular contact with other female teachers in the profession. When asked about the gender of their mentors, 23% of participants reported having a male mentor, 47% had female mentors, and 30% had mentors of both genders.

Forty-three percent of respondents reported their mentors to be other high school agricultural educators. Twenty-two percent of the respondents reported that teachers of other subjects were their mentors. Other reported mentors included female agriculture educators' friends (10%), parents or relatives (9%), spouses (5%), former agriculture educators (4%), and college professors or advisors (4%).

Only 25% of the respondents had contact with their mentors on a daily basis. Another 26% reported weekly contact, while 16% made monthly contact, 20% made quarterly contact, and 1% only made contact on a yearly basis. The female agriculture educators rated e-mail as their main form of contact with their mentor or support system. Respondents also felt that phone

calls, professional meetings, and in-person contacts were important methods of contacting their mentor.

Objective three: Self-perceptions of acceptance

In this study, female agriculture educators in Georgia were asked to rate statements that offered insight into self-perceptions regarding acceptance by others in the profession. Teachers were asked to rate items using a five-item summated rating scale ranging from strongly disagree to strongly agree. Item means are reported in descending order in Table 2.

Table 2
Self-perceptions of acceptance in the profession ($\mu = 59$)

Perceptions	M	SD
I feel accepted by my students.	4.56	0.53
I feel accepted by my administrators.	4.24	0.86
I feel accepted by parents of my students.	4.24	0.80
I feel accepted by my community.	4.17	0.77
I am challenged with balancing my family and career.	4.17	0.99
I feel satisfied in my profession.	4.12	0.81
I feel accepted by my male peers.	3.76	1.01
I feel I have to prove that I am adequate to be an agriculture teacher.	3.47	1.13
I have experienced some career barriers due to my gender as a female.	3.14	1.14
I have experienced barriers or challenges as a teacher due to my gender.	3.10	1.12
I feel that male teachers view me as inadequate in my career.	2.48	1.14

Note. 1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree.

Conclusions

According to the respondents of this study, the profile of the female agricultural educator in Georgia is a 32 year old who was either never married or is married with one child, holds a Masters degree, has six years of experience, had experience with either the FFA or 4-H in high school, and had previous experience in some area within the agricultural industry. This woman spends an average of 43 hours completing her professional duties weekly with an additional 23 hours involved in personal and family obligations. She contacts her female mentor, who is probably another agriculture educator, on a daily or weekly basis through e-mail. Additionally, Georgia females in this study most preferred teaching about the FFA, leadership development, and SAE, followed by instruction in greenhouse management and landscape design.

Comparatively, Foster's (2001) national study described the typical female agricultural educator as a 33 year old who was married with children, held a bachelors degree with hopes to pursue a higher level of education, had ten years or less experience, had experience with agricultural education and FFA in high school, and had some previous experience in the agriculture industry. Foster's (2001) national profile of the female agricultural education teacher also described a woman who spent an average of 51.8 hours at her professional occupation each

week and an additional 17 hours meeting family obligations. Foster's typical female had contact with other women in the field once a month, usually by telephone, but also at professional meetings. Her mentor was male and was probably her high school agricultural education teacher (Foster, 2001).

The third objective sought to determine the self-perceptions of female Georgia agricultural educators regarding acceptance by others in the profession. The findings of this study differ from the findings of previous studies (Foster et al., 1991; Kane, 1978; Knight et al., 1980) suggesting that gender bias could be a definite deterrent to women entering the profession. Georgia female agricultural educators were rather indifferent about their gender as a barrier. In fact, females in this study were satisfied with their careers and felt accepted by students, administrators, parents of students, and the community. According to Bandura's (1977) a behavior may be influenced by perceived self-efficacy, so if teaching is a behavior that can persist or cease, the findings of this study indicate that female agriculture teachers should be successful.

Recommendations

As in many states and across the country (Camp, et al., 2002), there is a significant teacher shortage in Georgia. The findings of this study should be published and presented as a recruitment tool for programs of agricultural education. Female students looking for a career need to be made aware of the fact that females in agriculture education are a relatively young group of professionals who value and complete advanced degrees, who work approximately 43 hours per week, who have the option to teach a wide variety of topics, and who have a relatively low divorce rate compared to the national average.

Forty-three hours a week is not that excessive, but the additional 23 hours per week for personal and family responsibilities may begin to wear on female agriculture educators. The authors of this study would like to join Rosencrans and Seevers (2001) and Foster (2003) in recommending that female (and male) agricultural educators identify and use volunteers and community resources more effectively. This could help working agricultural women to achieve more balance in their lives.

This study did not answer any questions pertaining to why the percentage of female agriculture teachers is lower compared to the percentage of newly qualified potential female agriculture teachers. To assist with this problem, state agricultural education leaders should endorse the use of a formal mentoring system that pairs experienced women in the field with beginning teachers (Foster, 2001). Additionally, future research should attempt to experimentally determine the cause of the discrepancy between the number female agriculture teachers and the number of newly qualified potential female agriculture teachers.

References

- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, (2), 191-215.

- Berlew, L. D. (2005). Multiple mentor model: A conceptual framework. *Journal of Career Development, 17*(3), 213-221.
- Betz, N. E. & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology, 28*, 399-410.
- Camp, W. (1998). A national study of the supply and demand for teachers of agricultural education in 1996-1998. Blacksburg: Virginia Tech, College of Agriculture and Life Sciences, Available online at <http://aaae.okstate.edu/Reports/2001/Supply%20&%20Demand%20Study.doc>
- Camp, W., Broyles, T., & Skelton, N. S. (2002). A national study of the supply and demand for teachers of agricultural education in 1999-2001. Blacksburg: Virginia Tech, College of Agriculture and Life Sciences, Available online at <http://aaae.okstate.edu/Reports/teachersupply2002.pdf>
- Cano, J. (1990). Male vocational agriculture teachers' attitude and perception towards female teachers of agriculture. *Journal of Agricultural Education, 31* (3), 19-23.
- Carter, R.I. (1992). *Leadership roles of women in agriculture*. Ames, IA: Iowa State University, Ames, Iowa. (CRIS Proj. No. IOW02947)
- Chao, G. T., Walz, P. M., & Gardner, P. D. (1992). Formal and informal mentorships: A comparison on mentoring functions and nonmentored counterparts. *Personnel Psychology, 45*, 619-636.
- Foster, B. (2001). Women in agricultural education: Who are you? *Proceedings of the the 28th Annual National Agricultural Education Research Conference*, pp. 1-22. Retrieved on September 12, 2005 from <http://www.aaaeonline.org/>
- Foster, B. (2003). Profiling female teachers of agricultural education at the secondary level. *Journal of Career and Technical Education, 19* (2) Retrieved on September 12, 2005 from <http://scholar.lib.vt.edu/ejournals/JCTE/v19n2/foster.html>
- Foster, B. & Conrad, M. (1998). Through the side door...women in agricultural education. *The Agricultural Education Magazine, 71* (3), 18-19.
- Foster, R., Pikkert, J., & Husmann, D. (1991). Self-perception of gender bias among women in agricultural teachers. *Proceedings of the National Agricultural Education Research Meeting*, 238-245.
- Gregg, T., Hampton, D., & Juergenson, E. M. (1975, June). Some myths about women agriculture teachers. *The Agriculture Education Magazine, 273-274*.

- Kane, R. D. (1978). *Preparing to teach non-traditional vocational education*. Columbus, OH: The National Center for Research in Vocational Education.
- Knight, J. (1987). Current status of women teachers of vocational agriculture and their perception of their place in the profession. *Proceedings of the National Agricultural Education Research Meeting*, 223-236.
- Knight, J. A., Henderson, J., & Ries, A. (1980, December). *A model for the recruitment, retention, and placement of female students in secondary vocational education programs which have traditionally been for males*.
- National FFA Organization (2005). *FFA Statistics*. Retrieved September 12, 2005 from the National FFA Web site: http://www.ffa.org/about_ffa/html/ffa_statistics.htm
- Ries, A. E. (1980.) *Relationship of perceived sex bias and the decision of women to teach production agriculture*. Unpublished master's thesis, The Ohio State University, Columbus, OH.
- Rosencrans, C. & Seevers, B. (2001). Involvement of volunteers in agricultural education programs in New Mexico. *Journal of Agricultural Education*, 42 (1), 71-80.
- Salant, P., & Dillman, D.A. (1994). *How to conduct your own survey*. New York: John Wiley & Sons, Inc.
- Sibiga, M. P. & Mannebach, A. J. (1997, November/December). Agricultural education: Changing because you change. *Agricultural Education Magazine*, 70, 12-13.
- United States Department of Labor. (2005). *Labor force statistics from the current population survey*. Bureau of Labor Statistics. Retrieved September 12, 2005 from <http://www.bls.gov/cps/home.htm>
- Webb, A. W. and Iverson, M. J. (1994). Women in young farmer education programs. *Proceedings of the Southern Agricultural Education Research Meeting*, March 20-21, 1994. Greenville, South Carolina.
- Whent, L. (1994, June). Understanding impediments to diversity in agricultural education. *The Agricultural Education Magazine*, 66, 9-11.
- Whittington, M. S. (1988). *The current status of the female vocational agriculture teachers in Ohio with regard to support and encouragement, subtle sexual harassment and sex discrimination, and job enjoyment*. Unpublished doctoral dissertation, The Ohio State University, Columbus.