FACTORS INFLUENCING FEMALE IDAHO AGRICULTURAL EDUCATION GRADUATES' DECISIONS REGARDING CAREER ENTRANCE

A Thesis

Presented in Partial Fulfillment of the Requirements for the

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by

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AUTHORIZATION TO SUBMIT THESIS

This thesis of Andrea Christine Schumaker, submitted for the degree of Master of Science with a major in Agricultural Education and titled, "Factors Influencing Female Idaho Agricultural Education Graduates' Decisions Regarding Career Entrance," has been reviewed in final form, as indicated by the signatures and dates given below. Permission is now granted to submit final copies to the College of Graduate Studies for approval.

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ABSTRACT

For the past three decades a shortage of agricultural educators at the secondary level has been evident. Foster (2001) stated, "In a traditional male dominated field, like agricultural education, artificial barriers based on attitudinal bias often prevent qualified women from reaching their potential…. there are very few role models for young women entering the profession" (p. 386). Whent (1993) goes on to say that probably the most common bias toward women in agricultural education was the expectation that women in agriculture want to, or are capable of, teaching only horticulture. These biases raise the question and help conclude that factors exist which serve as barriers to females entering secondary agricultural education programs or not staying within the field.

The purpose of the study was to describe the reasons why female graduates choose to either enter the teaching profession or pursue other opportunities after completing their degree in agricultural education from the University of Idaho, replicating similar studies from Arizona and Mississippi (Foster, 2001, 2003). The study results indicated that women chose not to teach secondary agricultural education was primarily because a better opportunity presented itself. Almost 50% of the respondents who are currently teaching or have taught felt they have faced barriers due to their gender.

Furthermore female graduates indicated that they were satisfied with the University of Idaho's assistance with helping them obtain a teaching position. The majority of females who choose not to teach felt their pay was better if not significantly better than if they had chosen a career in secondary education. Many of the female graduates discussed work life balance and listed family as the greatest barrier faced by female graduates.

VITA

Work Experience

College of Western Idaho:

August 2009 to Present – Admissions Manager supervising 8 one stop specialists and advisors at the Ada County Campus. Serve on the training committee along with a focus on Recruitment and Outreach. Collegiate FFA Advisor.

United States Peace Corps Volunteer:

June 2008 to May 2009 - Volunteer working with the Rural Agricultural Development Authority in Jamaica. This included setting up community gardens, field visits, working with 4-H programs, and grant writing.

Latah County Youth Services:

August 2007 to May 2008 - Worked with at risk youth, coordinated and supervised Latah County Ambassador program to decrease drug and alcohol abuse.

University of Idaho Residence Life:

August 2005 to May 2008 - Various tasks including resident assistant selection and training, budgeting and supervising community service projects, and supervising 10 resident assistants annually.

University of Idaho Latah County Extension:

May 2007 to August 2007- Summer intern for the 4-H extension office. Experience included working with youth in various settings including 4-H camps, trainings, supervising volunteers, and fundraisers. Trained in child protection.

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They say you should use this space to acknowledge those who have helped you along the way- it is unfortunate that it is only limited to this space in a bound book. It also almost feels like I am writing my Oscar winning speech- the cliché of, I am forever grateful to my family, friends, and all those who made this possible… yada yada yada. But in all seriousness, it is important for me to acknowledge and take a moment to appreciate the love and support I have received along the way.

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CHAPTER I

INTRODUCTION

Nationally, a shortage of agricultural educators at the secondary level has been evident for nearly three decades (Kantrovich, 2010). It was estimated that in 2012, hundreds of positions would be unfilled across the United States, simply because not enough students are choosing to be agricultural educators (NAAE, 2012). The 2012 Annual Report released by the National Association for Agricultural Education (NAAE) asked states if they were currently facing a shortage of secondary certified agriculture teachers. The following statements were made from around the nation:

1. "Yes, we are hiring alternatively certified teachers every year," Georgia.
2. "Yes, because of retirements, new program additions, expanding programs," California.

The National FFA Organization added that the shortage of qualified agriculture teachers was the greatest challenge facing FFA and agricultural education (National FFA Organization, 2011). National FFA also noted that recruitment of agricultural education instructors must begin in the secondary classroom. This involved identifying those students who had the potential to work with agricultural education and then guiding them through all of the processes and serving as a mentor. Ken Couture (2008), an agricultural education instructor and NAAE Region VI Vice President stated:

> "This generation of students is looking for a different kind of workplace, one that rewards collaboration, problem solving and flexibility. Are we modeling a career path for those potential teachers that will attract them into our profession? (Couture, 2008)"

National Team Ag Ed, composed of the National Council for Agricultural Education in conjunction with the 10X15 management team, made an effort to change the way agricultural education looks by the year 2015. The 10X15 initiative set the goal to have 10,000 quality agricultural education programs in place by 2015. The priorities and goals outlined within the 10X15 initiative; related to this study included:

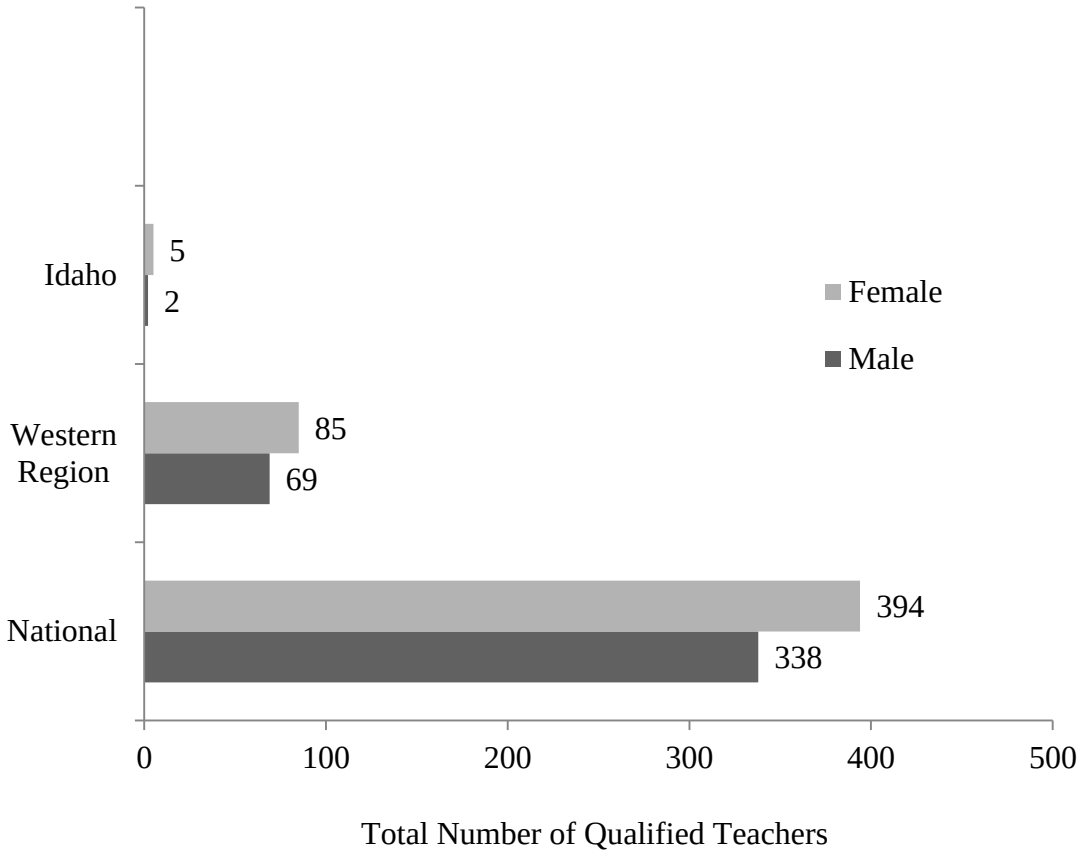
1. Define a quality secondary agricultural education program;
2. Secure an abundant supply of well trained, highly qualified teachers to serve within all roles at the national, regional, state, teacher educator, and teacher level; and
3. Develop a strong brand and promotional plan for agricultural education involving strong marketing and communications strategies (National FFA, 2011).

Efforts at the state level to recruit students into the agricultural education profession included the grassroots efforts of current agricultural education instructors identifying those students who show a passion and drive for the field of study. Once identified, the faculty in the Department of Agricultural and Extension Education at the University of Idaho began working closely with that student to ensure they initiated preparation to enroll and attend at the University of Idaho, majoring in agricultural education. These students enrolled in a broad array of topical coursework to help prepare them to be successful within the secondary classrooms: agricultural education, agricultural communications, horticulture, plant science, animal science, agricultural business, soil science, and agricultural mechanics. The capstone of the agricultural education major was the student teaching experience with a cooperating teacher in the field with an outstanding agricultural education program which included all three components of quality secondary agricultural education programs: supervised agricultural experience (SAE), leadership development through the FFA, and

secondary classroom instruction. As of 2014, the University of Idaho had trained more than 80% of the high school agricultural education teachers in the state of Idaho (Agricultural Education Directory, 2014).

A national study conducted every 4 years indicated the supply and demand of secondary agricultural education instructors. Trends showed that the amount of teaching positions was level however the amount of newly qualified teachers had been declining since 1980 (Camp, Broyles, & Skelton, 2002). The data also included demographic information regarding gender. Figure 1 indicated the most recent data of newly qualified teachers by gender at the national, western region, and Idaho levels (Kantrovich, 2010).

Figure 1. Newly Qualified Teachers by Gender (2006-2009)



In every case, the data indicated that the number of female graduates exceeded that of their male counterparts at the national, regional, and state levels. However in the 2014-2015 school year, 92 men (72%) and 35 women (28%) were teaching agriculture in the state of Idaho (Agricultural Education Directory, 2014). This study investigated why women obtained a degree in Agricultural Education from the University of Idaho with the intent to teach in the high school classroom, but instead took employment in another profession or chose to not work. This mixed methods study was designed to assist the University of Idaho; specifically the College of Agricultural and Life Sciences Department of Agricultural and Extension Education, better understand the determining factors for female graduates in deciding whether or not to pursue a career as a secondary agricultural instructor.

STATEMENT OF THE PROBLEM

Foster (2001) stated, "In a traditional male dominated field, like agricultural education, artificial barriers based on attitudinal bias often prevent qualified women from reaching their potential…. there are very few role models for young women entering the profession" (p. 386). Whent (1993) went on to say that probably the most common bias toward women in agricultural education was the expectation that women in agriculture want to, or are capable of, teaching only horticulture. Furthermore, studies also show that in the early 1980's Pennsylvania had 23 female agricultural education instructors but in the early nineties, only six women remained in teaching (Baker & Baggett, 1995). These biases raised the question and helped conclude that factors exist which serve as barriers to females entering secondary agricultural education programs or keep them from staying in the field.

PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of the study was to describe the reasons why female graduates choose to either enter the teaching profession or pursue other opportunities after completing their degree in agricultural education from the University of Idaho.

The specific objectives of this study were:

1. Describe the female students graduating with a Bachelor of Science Degree in Agricultural Education from the University of Idaho.
2. Describe the employment status of female graduates immediately after earning a degree in Agricultural Education from the University of Idaho.
3. Identify perceived barriers to entering the agricultural education profession upon graduation experienced by female degree earners.
4. Describe the rationale of secondary female agricultural education graduates for not entering the teaching profession.
5. Describe the rationale of secondary female agricultural instructors for maintaining employment as a secondary agricultural instructor.
6. Describe perceived barriers, obstacles, and challenges faced by secondary female agricultural instructors.

CHAPTER II

REVIEW OF LITERATURE

INTRODUCTION

The review of literature for this study has been divided into the following sections:

1. Description and demand for Agricultural Educators at the secondary level.
2. Description of high school female enrollment in agricultural education courses.
3. Role models and their impact on females.
4. Job outlook and placement for male and female Agricultural Education Instructors.
5. Women and Gender Bias within the education field.

DESCRIPTION AND DEMAND FOR AGRICULTURAL EDUCATORS AT THE SECONDARY LEVEL

Describing the field of agricultural education and any challenges within the field was important for the University of Idaho to identify, regardless of gender. This information was gathered to assist the department, college, and university when identifying the need for agricultural instructors when defining the future of agricultural education.

Census data from 2007 provided the following information related to agriculture:

1. In 2007 there were approximately 3.3 million US farm operators and their average age was 57.
2. There were 306,209 women farmers in 2007 an increase of 29 percent from 2002.
3. Total land in farms was estimated at 919.9 million acres in 2010, compared to the 1.04 billion acres in 1980.

4. Since 1987, the average size of the U.S farm had averaged around 455 acres.
5. Agriculture employs more than 21 million American workers (15% of the total U.S workforce) to produce, process, sell and trade the nation's food and fiber (American Farm Bureau, 2007).
6. Finally, less than two percent of the population is involved in production agriculture however, 100 percent of the population is involved in the consumption of agricultural products (American Farm Bureau, 1997).

These challenges indicated the need for agricultural education programs, especially when considering the age of the majority of farm operators. Educating youth at an early age could lead to an increased awareness to the agricultural industry and a desire to become one of the 21 million employed by the industry.

"Do we still need Agricultural Education," a study conducted by Dr. Rosco Vaughn in 1999 begs the question of defining whether or not there is still a need for agricultural education asking if there is a place for agriculture in the classroom or can these same skills be taught by science and business teachers in secondary education. The study also looked at a need to redefine agricultural education with the current methods and content being taught. The study asserted that agricultural education programs should be proactive instead of reactive. Vaughn (1999) indicated that recruiting high quality agricultural instructors served as an indicator for the success of agricultural education moving forward:

> "a need to attract and keep high quality teachers. Bright young people entering agricultural education will ensure it sustains itself in future years. Teachers need the support of strong state and national leaders to help them keep abreast of

> changes in teaching technology and methodology along with technical knowledge in agriculture".

There was also a focus on having the ability to deliver instructional methods that were diverse and aided in reaching a very diverse audience. Vaughn (1999) further clarified that it was apparent that agriculture and agricultural education programs were no longer about cows and plows, but reached an audience that contains environmental, economic, and sustainable efforts within agricultural education. While this study took place in the late 1990s, could an increase in female agricultural instructors nearly 20 years later help with enrollment in high school agricultural courses and lead to eventual careers within secondary agricultural education?

DESCRIPTION OF FEMALE ENROLLMENT IN SECONDARY AGRICULTURAL EDUCATION PROGRAMS

Is there a reason why females were not traditionally drawn to agricultural education in high school? A 1988 study by the committee on Agricultural Education in secondary schools indicated:

> "White males have mainly made up enrollment in vocational agriculture programs in the past and continue to do so. During the past decade, the enrollment of females has increased. Female enrollment has concentrated in a limited number of specialized vocational agriculture programs. Enrollment of minorities in vocational agriculture is disproportionately low."

Females in Nebraska schools were not made aware of the opportunities available to them within the field of agriculture (Bell & Fritz, 1992). The lack of awareness led to the top three reasons for females not pursing or being interested in agriculture which included: a lack of career information explaining career opportunities to females interested in going into the agricultural industry, counseling services not providing awareness of nontraditional employment and careers for all students, and finally a lack of existing support networks encouraging students to participate in agricultural education courses. The most significant difference was that a large majority of the female respondents (92%) had not participated in a junior high exploratory program related to agricultural education, which led to confusion about agricultural education and the career opportunities available to females. However, the small percentage of female respondents who had the junior high exploratory program did not have the confusion about careers and what agricultural education was all about (Bell & Fritz, 1992).

Furthermore, when students thought about a career related to agriculture it typically equated to only farming and ranching. The difficulty was apparent when teachers tried to convince their students of the breadth of agriculture, the students should also consider the science or business sides of the industry. The limited view of the agricultural industry lead to a negative perception on what agriculture actually was and convinced students that agriculture could be viewed as a negative career choice (Orthel, Sorensen, Lierman, & Riesenberg, 1989). When females actually asked about their decision making process in college, they concluded that the women were not provided career information helping to explain both traditional and non-traditional employment opportunities for their gender. Females also experienced agricultural education programs in a format that was not

responsive to their needs, and simply had difficulty scheduling agricultural education courses. Along with these findings, the most glaring need by females was a support system by counselors, instructors, parents, and students to help increase female enrollment (Bell & Fritz, 1994).

When evaluating secondary agricultural education programs and female involvement, it was important to also look at the State and National FFA Organizations and Career Development Events (CDEs) components. In research related to what motivates students to participate in CDEs, students were primarily motivated by seeing their trophies displayed in the classroom, the opportunity to win scholarships, and the support they received from past FFA and community members. Students were also motivated by success and they like to be recognized for a job well done (Russell & Kelsey, 2009).

ROLE MODELS AND THEIR EFFECTS ON FEMALES

While it was challenging to find information about agricultural education and the impact that role models have on females within the field, comparable research had been conducted related to mathematics education. Women were not drawn to the math field because of their own beliefs about the field and their perceptions of what was appropriate based on their gender. It was discussed that in order to dispel this myth, secondary teachers could provide lessons that show females actually working in the field (i.e bring in a guest speaker who is a female agricultural education teacher) and demonstrate career viability regardless of gender. Role models were key for females, it was also important to note that boys also need to be exposed to females in those careers as well so they can perceive those careers as appropriate for females as well as males (Wiest & Johnson 2005).

Finding mentors has shown to have a notable impact on women when looking at how to overcome real and perceived barriers. Teacher retention could potentially be increased for all new teachers by giving them a person they can contact allowing them to talk about issues they are facing as a new teacher in the profession. For a lot of women, mentoring systems were not in place and women within the profession perceived that mentoring programs would add a lot of value to teacher induction programs (Baxter, Stephens, & Thayer-Bacon, 2011).

JOB OUTLOOK AND PLACEMENT OF AGRICULTURAL EDUCATION GRADUATES

Kelsey (2006) assessed female students who took at least one pre-service course at Oklahoma State University from 1999-2004 and also included the 13 female agricultural instructors currently teaching at the secondary level. The study found that 9 of the 36 female respondents had a low commitment to teaching agricultural education. Five of these women were current students looking for other career options. Two of these women also indicated their gender was a factor for leaving agricultural education because they did not think the prospects of employment were high as they were female. Over a four year span, 57% of the women who entered the agricultural education teacher program left before getting to their student teaching experience. Of the women who finished the program and graduated with a degree in agricultural education 52% of those women did not go on to teach agricultural education (Kelsey 2006). Furthermore female graduates that were working as Extension Educators also commented on their career options and explained they faced the work life

balance, the lack of mentors, and the lack of acceptance from their male colleagues (Foster & Seevers, 2003).

When considering females' pre-service teacher preparation program, Kelsey (2006) indicated that women were treated equitable by their professors and staff at the University level. However when females were participating in student teaching experience, they experienced gender bias and sex stereotyping from their male peers, male secondary agricultural education instructors, and male school administrators. For some of these women, this was the first time they were exposed to some form of gender bias and sex stereotyping. Overall, the women in the Oklahoma study were satisfied with the University and their preparation for their career however some expressed regret that they has not received counseling from faculty about the possible gender biases they might encounter in the field(Kelsey, 2006). Furthermore, a recommendation to include an in-service training for new teachers, current teachers, and administrators along with a course on gender challenges in the classroom should be taught at the University level to help teachers prepare for their career and know the barriers and how to handle them before they are faced with those challenges would help minimize the negative impact of these experiences (Baxter, Stephens, & Thayer-Bacon, 2011).

WOMEN AND GENDER BIAS WITHIN THE EDUCATION FIELD

Foster (2000) provided insight into the decision making women engage in when deciding not to teach. The original study was to describe the basic profile and demographics of women agricultural educators. However, it was realized when the surveys were opened that another study should be conducted based on the feedback received. The women

included very personal thoughts and comments regarding some of the questions. Foster (2001) reported that women, unlike men, asked questions regarding their agricultural education career such as:

1. Can I do this and have children?
2. How do I deal with the guilt of not being good at everything, i.e mom, career, etc.?
3. Do I feel supported by my spouse?
4. How can a balance be maintained?

Respondents provided insightful comments that were very personal in nature. "I am leaving teaching due to the demands it places on my family. I spend way too much time away from home," or "traditional attitudes, a lot of male teacher's had/have wives at home to raise children, keep house work, etc.. doing both is tricky." Female agricultural education graduates have historically transitioned into the classroom at a lower rate than men and may be an untapped source of potential teachers to address the overall agricultural education instructor shortage (Kantrovich, 2010).

Similarly, Kelsey (2006) noted that women felt gender bias in their early field experience, student teaching, along with applying and interviewing for jobs. One participant spoke of her experience in an interview. When she was sitting in the lobby waiting for her interview she overhead the principal tell the superintendent, "I told you I don't want to interview any females for this position." She was interviewed for the position, but not hired. Another certified female agricultural education graduate was not hired for a position; instead a male without an agricultural education teaching certificate was hired. Other women have faced gender biased interview questions, perceptions they are not capable of teaching

agriculture and agricultural mechanics content, and felt that they were forced to focus on urban rather than rural job settings to increase their chances of employment.

Wakfield (2006) found that the majority of female agricultural instructors were within their beginning teaching years (0-5 years' experience). The primary content areas that the female agricultural education instructors taught were: agricultural business management, horticulture, agricultural mechanics, agricultural resources and agricultural science. Agricultural mechanics was seemingly a male dominated content area. However, mechanics courses were taught by 52% of the respondents, but 32% found the content difficult to teach. The females also experienced some bias by their male counterparts, but more-so by the students and parents of agriculture students (Cano, 1990). Even though these biases existed, studies also indicated that male and female agricultural education instructors were overall very satisfied with their jobs (Castillo, Conklin, & Cano, 1999). Furthermore, at the University level females also faced gender bias when trying to seek industry support, disciple, and industry ties when compared to their male counterparts (Crowe & Goldberger, 2009).

Lastly, Kelsey (2007) identified the underrepresentation of women within the agricultural education teaching field. Kelsey's findings "indicated that women were treated equitably by teacher education faculty and staff. However, they experiences sex stereotyping and gender bias from male students and peers, male secondary agricultural education teachers, and male school administrators."

CONCLUSION

A shortage of agricultural education instructors existed and National Team Ag Ed has established initiatives to address this problem. The Farm Bureau (American Farm Bureau, 2007) also provided data along with the profile of agriculture and a need for agriculture and agricultural education within the secondary classroom. In addressing the teacher shortage, female agricultural education instructors faced a variety of gender stereotyping barriers when teaching at the secondary level. As numbers of female graduates at the collegiate level increases, the knowledge and awareness of what factors and barriers were facing female graduates became increasingly more important.

CHAPTER III

METHODOLOGY

INTRODUCTION

In the 2014-2015 academic year, 92 men and 35 women teaching were secondary agricultural education courses in the state of Idaho (Agricultural Education Directory, 2014). This study investigated the factors that influenced female graduates from the University of Idaho decisions to teach secondary agricultural education. The mixed method approach was designed to aid the University of Idaho, specifically the College of Agricultural and Life Sciences Department of Agricultural and Extension Education in better understanding the determining factors for female teachers in pursuing a career as a secondary agricultural education instructor.

THEORETICAL FRAMEWORK

According to Foster (2001) the concept of feminist research provides a lens to better regard the issues that arise with females and finding that right work life and family balance. This research was an attempt to better understand the barriers faced by female agricultural educators, even if they did not ultimately choose a career in secondary agriculture. The research was designed to better gather demographic data of female graduates as well as gauge their enjoyment with career choice. The theory used for this research was constructivism, where the researcher will identify those experiences and determine if those experiences were an accurate representation of reality (Doolittle & Camp, 1999). The impact of pre-service preparation, student teaching experiences, and job searches may have been

experiences that students used to "actively construct meaning through personal experiences" related to gender bias and life/work balance.

TARGET POPULATION AND SAMPLE SELECTION

The target population for this study was University of Idaho female graduates from the College of Agricultural and Life Sciences with degrees in Agricultural Education in the fall, spring, and summer semesters. The target population for this study included every female having graduated from the University of Idaho with a degree in Agricultural Education beginning from the year the department was formed in 1928. Upon approval from the Institutional Review Board (Appendix C) the survey was created and information obtained to begin gathering data. According to University of Idaho Advancement Information office (2014), the earliest female graduate was in 1979. The University of Idaho Advancement Information office provided the names, e-mail address, graduation year, and degree granted. The population (n=69) was provided by the University of Idaho and to protect the identity of the women surveyed, only participant numbers identified respondents. These participant numbers were used in all charts and direct quotations in the findings.

LIMITATIONS AND DELIMITATIONS

Creswell (2008) defined limitations of a study as the "potential weaknesses or problems with the study identified by the researcher" (p. 207). The following limitations to this study were identified:

1. The population was limited to females who graduated from the University of Idaho with a degree in Agricultural Education.

2. The findings were limited to graduates with the teaching option for Agricultural Education and did not include those graduates who earned an Agricultural Education non-teaching option, Agricultural Industry Management, and Communications, or Agricultural Science Communications and Leadership degree programs.
3. The information for the participants was provided by the University of Idaho Advancement Information office, most of the contact information was still linked to their University of Idaho account. The Idaho Agricultural Education directory (2014) was used to identify more accurate contact information, or using the contact information provided, which the participant may no longer use.

Leedy and Ormrod (2010) defined delimitations as, "what the researcher is not going to do in the study" (page 57). The following delimitation was identified:

1. The population was delimited to female Agricultural Education graduates from the University of Idaho Department of Agricultural and Extension Education.
2. The population was delimited to female Agricultural Education graduates from the University of Idaho Department of Agricultural and Extension Education whose contact information was current with the University of Idaho or the Idaho Vocational Agriculture Teachers' Association.

METHODOLOGY

The survey employed a mixed method approach. A case study was used to allow the respondents to answer some open-ended questions. This approach was defined by Creswell (2013) as, "a qualitative approach in which the investigator explores a real-life, contemporary bounded system or multiple bounded systems over time, through detailed, in

depth data collection involving multiple sources of information (e.g. observations, interviews, audiovisual materials, documents and reports), and reports a case description and case themes (p. 97). A quantitative component was also used. Leedy and Ormond (2010) defined this approach as, "measure variables in some way, perhaps by using commonly accepted measures of the physical world or carefully designed measures of psychological characteristics or behaviors (e.g. test, questionnaires, rating scales" (p. 94).

INSTRUMENTATION

The survey instrument used was developed by Dr. Billye Foster (2003) and was used by the researcher with her permission (Foster, 2014). The original survey questionnaire was reviewed by a panel of 6 experts, including two female teacher educators and female graduate students in agricultural education, for content and face validity. It was also field tested on a group of female secondary level business teachers. Minor wording changes on selected questions were made as a result of their input (Foster, 2003).

The questionnaire was loaded into Survey Monkey. All female agricultural education graduates from the University of Idaho were solicited by e-mail notifying them of the study and inviting them to participate. Conducting a survey online had several advantages as it reached a larger audience and prevented the costs of mailing materials. As Leedy and Ormond (2010) stated, "Survey Monkey provides a website with numerous templates that make questionnaire design easy and enable the researcher to present a variety of item types (e.g. multiple-choice, rating scales) (203)." Using the online survey tool allowed for follow up of non-respondents and late respondents.

The question format was primarily yes or no questions, check all that apply, Likert-type rating scales, and two open ended questions asking them to explain any barriers or challenges faced as an educator due to gender and what they perceive to be the greatest challenge faced by female Agricultural Education graduates (Appendix A). The original questionnaire contained six sections focusing on educational background, teaching experience, mentoring/motivation, professional treatment, and demographics. The section related to Desert Roses newsletter and website was changed to reflect services offered by the University of Idaho as Desert Roses does not apply to Idaho women.

All 48 respondents (69.56%) were used in the data analysis. Non-response error can be a threat to the external validity of a study anytime the response rate is below 100 %. To account for non-response, early and late responders were compared for statistical differences (Lindner, Murphy, & Briers, 2001). Late responders were defined as the later 50 % (n=24) of the respondents (Lindner, et al., 2001). The 0.05 level of significance was established *a priori* when comparing early and late responders. A variety of data points were compared between early and late responders using a Chi-Square analysis. As shown in Table 1, none of the variables considered exceeded the 0.05 level of significance established *a priori.*

Table 1. Chi-Square Analysis of Early and Late Responders to Assess Generalizability

Variable	Chi-Square Value	Significance
Age	10.731	.217
Marital Status	1.457	.834
Children	.784	.376
Highest Degree Held	2.300	.513
Interest in Increasing Education	2.637	.104
Enrollment in Secondary Ag Classes	2.424	.119
FFA Membership	1.500	.221
Currently teaching	.000	1.000
Ever taught	.508	.776
Teaching experience in years	5.244	.387
Beginning salary	5.867	.555
Ending (current) salary	7.175	.411
Current employment status	1.192	.551

DATA COLLECTION PROCEDURES

The survey (Appendix A) was sent to all 69 women identified as members of the population via Survey Monkey. An initial invitation was sent in April asking the population to participate. Three follow up e-mails were sent monthly (May, June, and July) reminding them to participate. Finally a final request was made in August requesting participation.

ANALYSIS OF DATA

The data collected was analyzed through Survey Monkey, Microsoft Excel, and Statistical Package for Social Sciences (SPSS) version 19. Survey Monkey allowed the researcher to convert the responses into figures and tables, which totaled and averaged the most common and uncommon responses. Qualitative analysis was used for the open ended questions when compiling the results by using Survey Monkey, the major professor, and other agricultural educators to determine the most common themes within a response. The

response rates and dates can be found on Table 2 and the participant e-mails and notifications can be found in Appendix B.

Table 2. Female Respondents Response Rate with Survey Dates and Percentages

Date Survey Invite/Reminder Sent	**Total Responses (n)**	**Percentage (%)**
April 24, 2014	22	32.35%
May 13, 2014	18	26.47%
June 24, 2014	4	5.88%
July 28, 2014	2	2.94%
August 1, 2014	2	2.94%
Total Responses	48	64.64%

Of the total population (N=69), 29 females (42%) identified as graduates that the researcher had invalid or out of date e-mail addresses for. With the help of the University of Idaho's Department of Agricultural and Extension Education, the researcher was able to obtain better e-mail contacts for the female graduates. Of the population (N=69), 3 individuals had invalid contact information and did not receive the survey.

SUMMARY

This study used a mixed method approach allowing for quantitative methods with the survey components of:

1. Likert-type scales
2. Yes or no responses
3. Check all that apply

The responses gathered data where means and standard deviations can be computed. The Qualitative approach with the open-ended questions and responses allowed for common

themes to be organized (Foster, 2003). This study was tested for validity, reliability, and non-response error.

CHAPTER IV

FINDINGS

INTRODUCTION

The purpose of the study was to describe the reasons why female graduates chose to either enter the teaching profession or pursue other opportunities after completing their degree in Agricultural Education from the University of Idaho. The researcher used a series of research questions with the permission of Dr. Billye Foster (2014) to utilize her survey instrument to address this problem as a replication of her previous studies. The survey was conducted in April with an initial e-mail invitation to the 69 members of the population. Follow up emails were sent in May, June, and July reminding those who hadn't completed the survey to participate. A final e-mail was sent in August to the remaining participants. Of the 69 participants invited to the survey, 1 opted out, 20 took no action, and 48 responded yielding a 69.6% response rate.

SURVEY RESULTS

The data collected from the surveys was analyzed using Microsoft Excel, Survey Monkey, and the Statistical Package for Social Sciences (SPSS). The survey consisted of yes or no questions, check those that apply, and Likert-type scale questions. The Likert-type scale used a rating of no weight on decision (1), some weight on decision (2), neutral (3), somewhat heavy on decision (4), and extremely heavy on decision (5) allowing participants to only choose the one they most identified with. Lastly, open ended questions were available for the participants to complete which helped gain further insight into the female graduate's perceptions of gender bias and barriers in the agricultural education profession.

RESEARCH QUESTIONS

After doing an extensive review of literature regarding female Agricultural Education graduates, it became apparent there been no research done recently on the subject. Additionally, no literature was available relating to a specific state, nor were targeted questions asked about female Agricultural Education graduates' decisions regarding entrance into the teaching profession. This allowed the researcher to develop the following research questions:

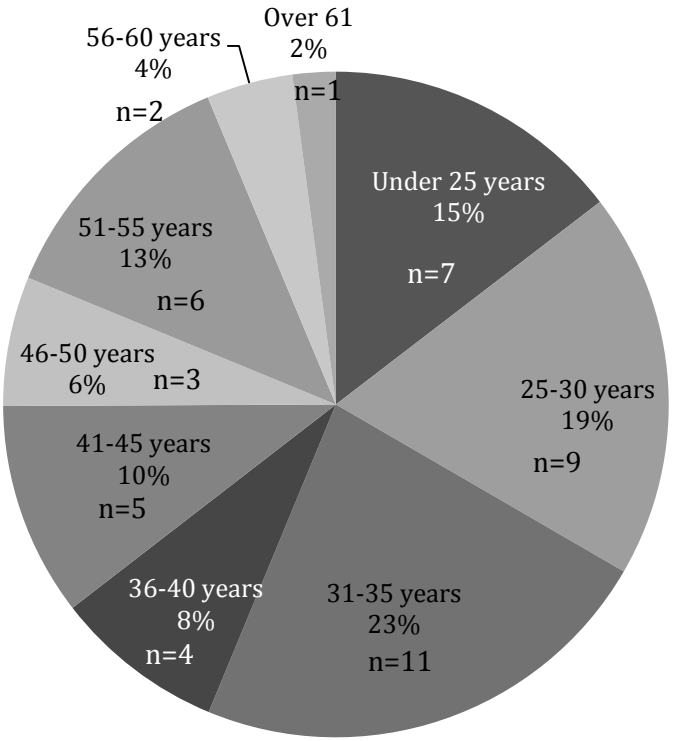
1. Identify the number of students graduating with a Bachelor of Science degree in Agricultural Education from the University of Idaho by gender.
2. Describe the employment status of female graduates immediately after earning a degree in Agricultural Education from the University of Idaho.
3. Identify perceived barriers to entering the agricultural education profession upon graduation experienced by female degree earners.
4. Describe the rationale of secondary female agricultural teachers for not entering the teaching profession.
5. Describe the rationale of secondary female agricultural instructors for maintaining employment as a secondary agricultural instructor.
6. Describe perceived barrier, obstacles, and challenges faced by secondary female agricultural instructors.

Objective 1: Describe the female students graduating with a Bachelor of Science Degree in Agricultural Education from the University of Idaho.

The information obtained by the University of Idaho Advancement Information Office (2014) identified 69 total female graduates from the University of Idaho earning a degree in agricultural education with the first being in 1979 and the most recent in 2013. The initial questions in the survey were demographic in nature and aided in better understanding the total population.

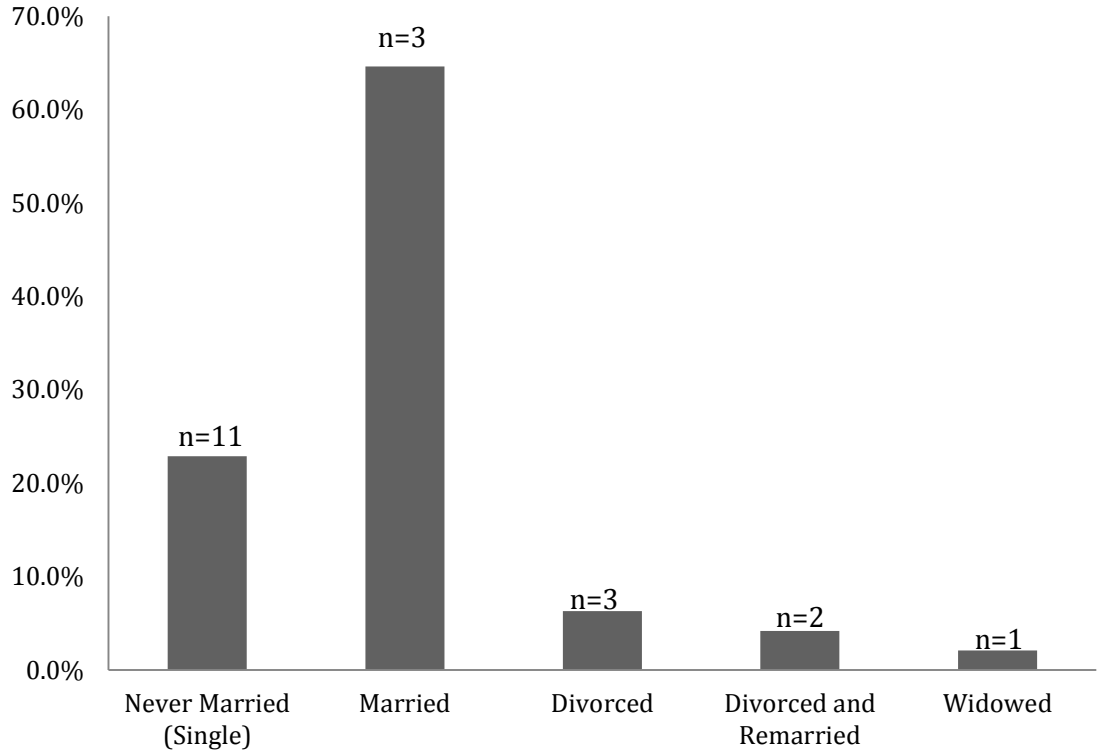
Of the 48 respondents, 56.3% (n=27) were 35 years old or younger while 43.75% (n=21) were 36 years old or older at the time of the study (Figure 2).

Figure 2. Ages of Female Graduates Participating in Study



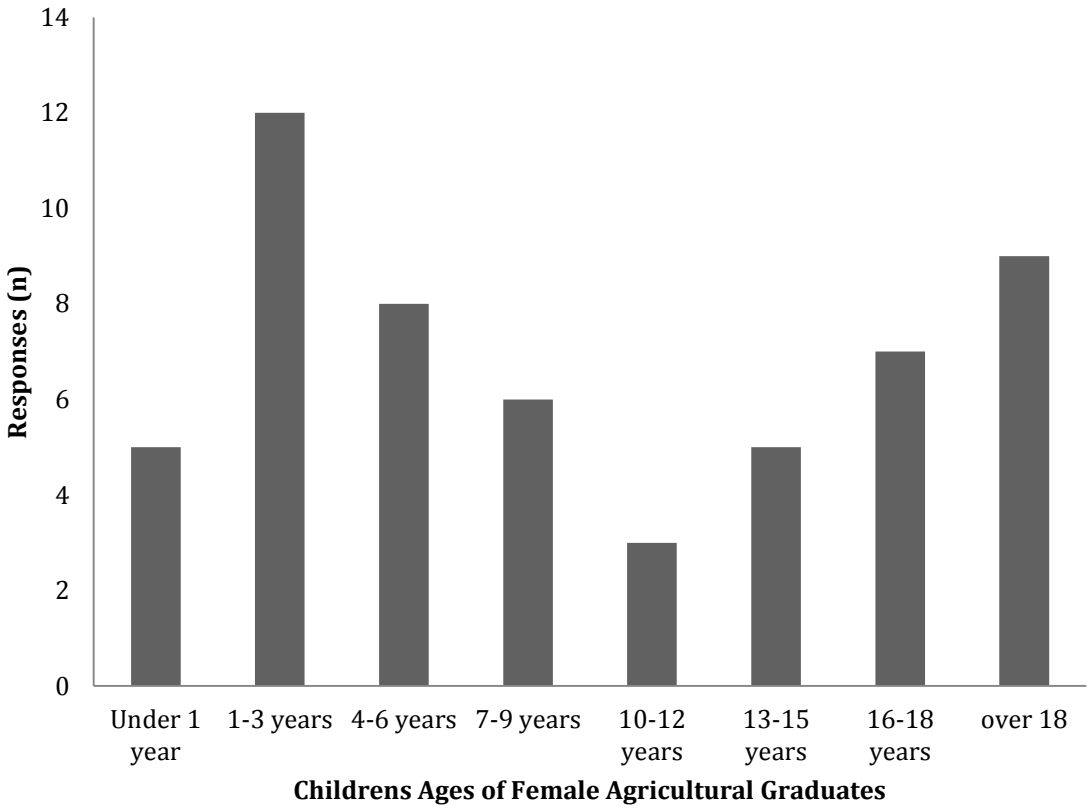
The female graduates were asked to clarify their current marital status. Of the 48 respondents 64.58% (n=31) reported being married, 22.92% (n=11) reported being single or never married, while 6.25% (n=3) indicated they were divorced, 4.17% (n=2) were divorced but remarried at the time of the study, and 1 respondent (2.08%) was widowed (Figure 3).

Figure 3. Marital Status of Female Respondents Participating in Study



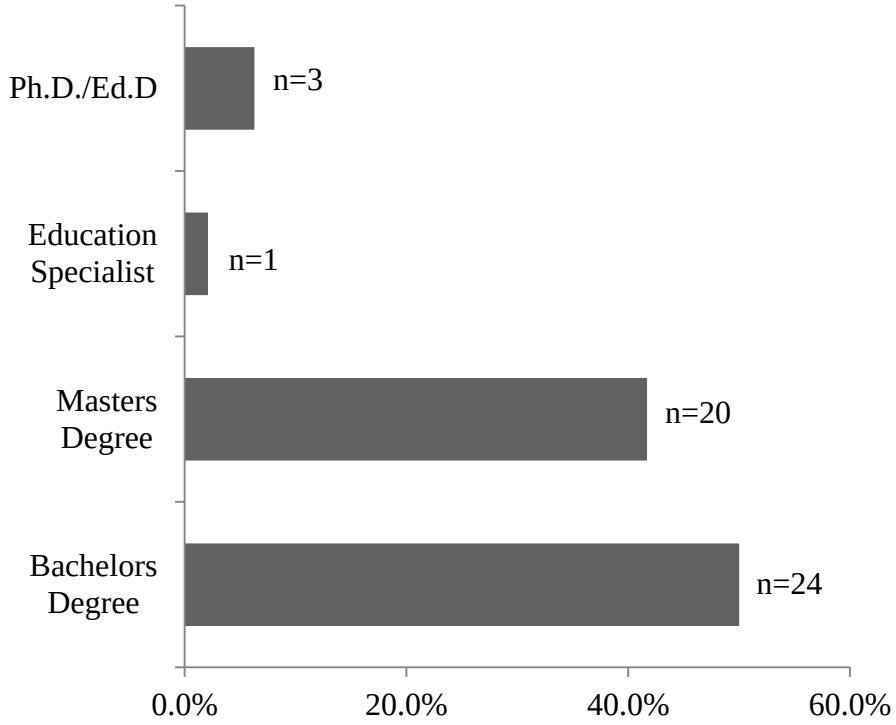
The respondents indicated that 60.42% (n=29) had children and the other 39.58% (n=19) do not have any children. Of the 29 respondents did have children, there were a total of 56 children under the age of 18 in the household or an average of 1.93 children per respondent (Figure 4).

Figure 4. Ages and Number of Children of Female Graduates Participating in Study



Furthermore, the respondents were asked to specify the highest level of education attained. A total of 50% of the respondents (n=24) have a bachelor's degree, while 41.67% hold a master's degree (n=20), and 2.1% (n=1) hold an education specialist, and 6.3% (n=3) hold a PhD, or Ed.D (Figure 5).

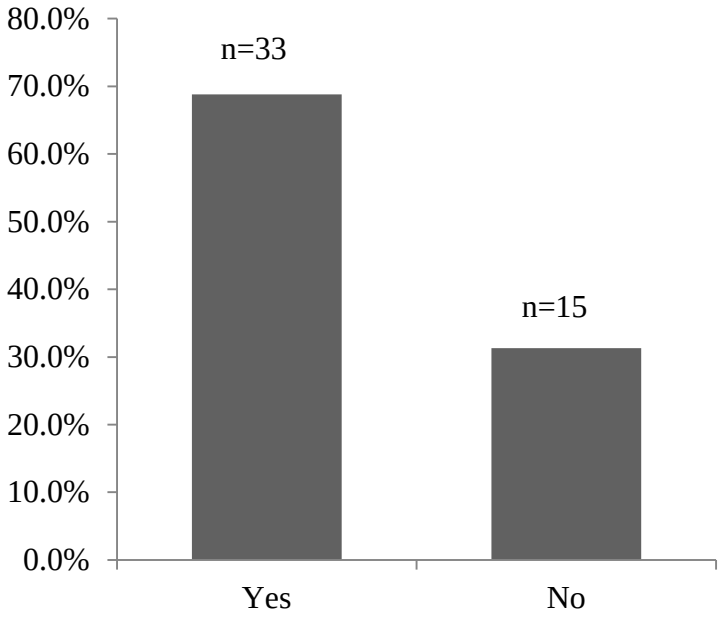
Figure 5. Highest Education Level of Female Graduates Participating in Study



Additionally, the respondents were asked to specify their degree. Of the respondents 83.33% (n=40) held an Agricultural Education degree. The other 16.67% hold Agricultural Education degrees, but also held degrees in various related subjects which included: Animal Science, Home Economics, Extension Education, Human Resource Training and Development, Ag Business, and Computer Science. Thirty-five of the respondents (79.92%) indicated that they had a desire in increasing their level of education. Thirteen of the respondents (27.08%) had no desire to continue their education at the time of the study.

To gather additional demographic information about the respondents, the respondents were asked to indicate if they had taken agricultural education classes in high school and whether or not they were involved with FFA. Of the total respondents (n=48), 68.75% (n=33) stated that they had taken agricultural classes in high school while 31.25% (n=15) said they did not take agricultural courses in high school (Figure 6).

Figure 6. Females Response to Completing High School Agricultural Courses

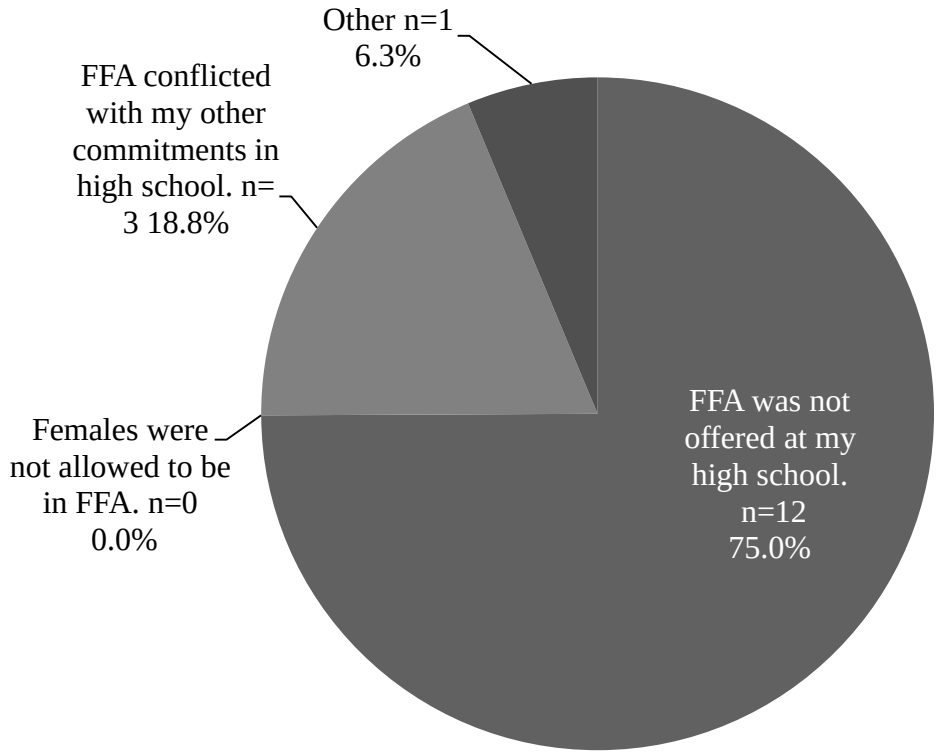


Of the 15 respondents stating they did not take agricultural classes in high school, 80% (n=12) indicated that agricultural education classes were not offered or available at their school, 6.67% (n=1) stated that the secondary agricultural courses conflicted with their schedule, while none of the respondents indicated that females weren't allowed to enroll in secondary agricultural courses. Finally, 13.33% (n=2) marked other. Respondent 33 stated the fact that she was homeschooled, which is why she wasn't able to attend agricultural courses. Respondent 16 left the following comment, "When I was in Junior High School I took a course from the teacher that taught the Agriculture classes. He was knowledgeable teacher, but did not have strong classroom management. It turned me off to taking any courses from him."

Finally, the respondents were asked about their involvement in FFA. Of the total respondents (n=48), 66.67% (n=32) stated they were a member of FFA in high school and the other 33.33% (n=16) stated they were not involved in FFA. Of the respondents not

involved in FFA (n=16), 75% (n=12) indicated that FFA was not offered at their high school, while 18.8% (n=3) indicated that FFA conflicted with the other activities/commitments in high school, none of the respondents indicated that females were not allowed to be in FFA, and 1 respondent (n=1) 6.3% marked other and left the following comment: "As I stated before, I did not take any ag classes and it was a requirement for FFA."

Figure 7. Reasons Females Were Not Involved with FFA in High School



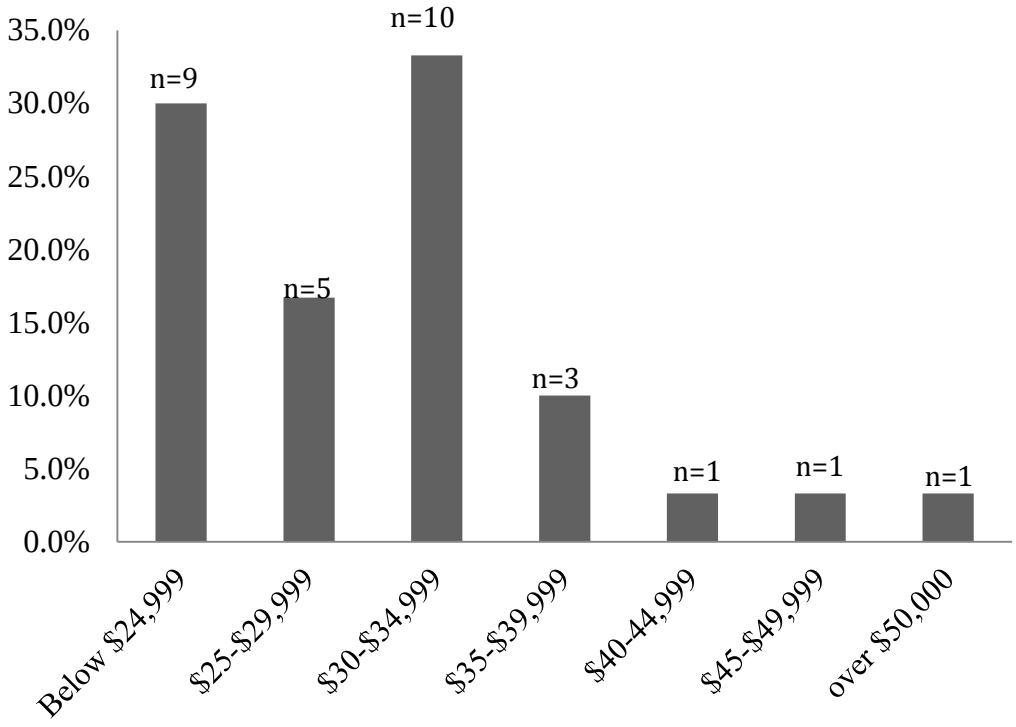
Objective 2: Describe the employment status of female graduates immediately after earning a degree in Agricultural Education from the University of Idaho.

Of the total respondents (n=48), 62.58% (n=30) of the women have taught or are currently teaching secondary agriculture. Of the 30 respondents that have taught, 53.33%

(n=16) were teaching high school agricultural education at the time of the study, while 46.66% (n=14) have taught but were not currently teaching in the classroom. The remaining 37.5% (n=18) of the respondents had never taught secondary agricultural education.

The beginning salary range for the teaching respondents started at $24,999 or below (30%, n=9). The average starting salary was between $30,000 and $34,999 (33.33%, n=10). One respondent (3.33%) reported starting at $45,000 to $49,999 while one respondent (3.33%) reported starting at over $50,000 (Figure 8).

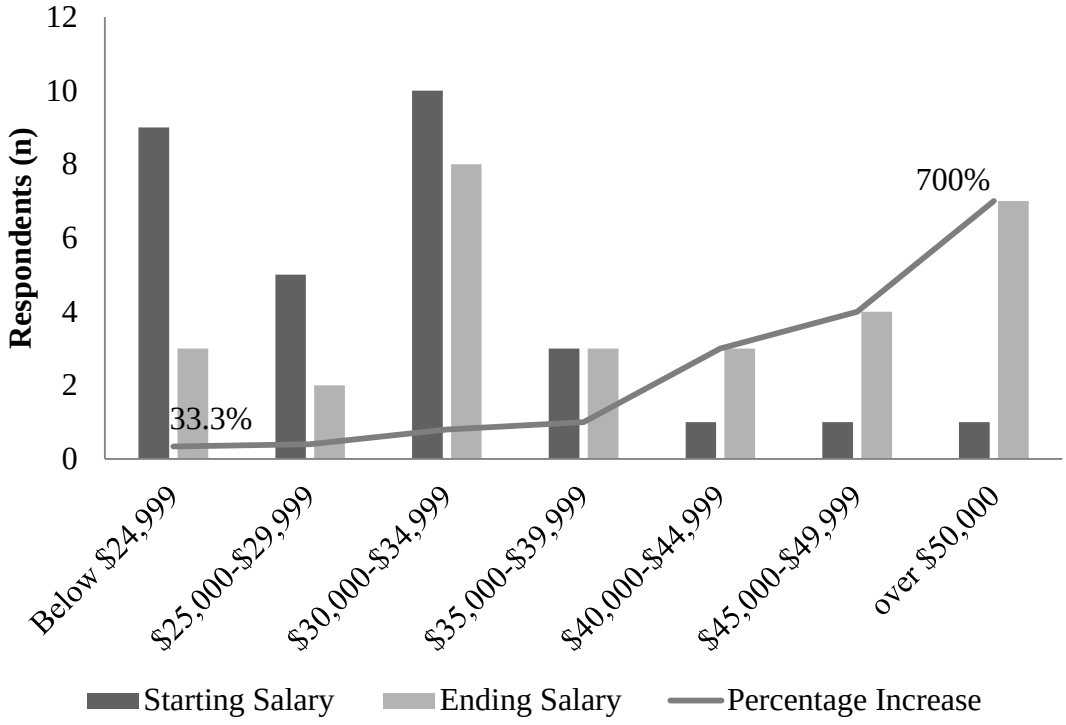
Figure 8. Starting Salary for Beginner Female Teachers



The respondents were also asked to specify their current salary or the salary they had when they stopped teaching. Of the 30 respondents who have taught secondary agricultural education, 10% (n=3) ended with a salary below $24,999, 6.67% (n=2) ended with a salary between $25,000 and $25,999, 26.6% (n=8) ended with a salary between $30,000 and

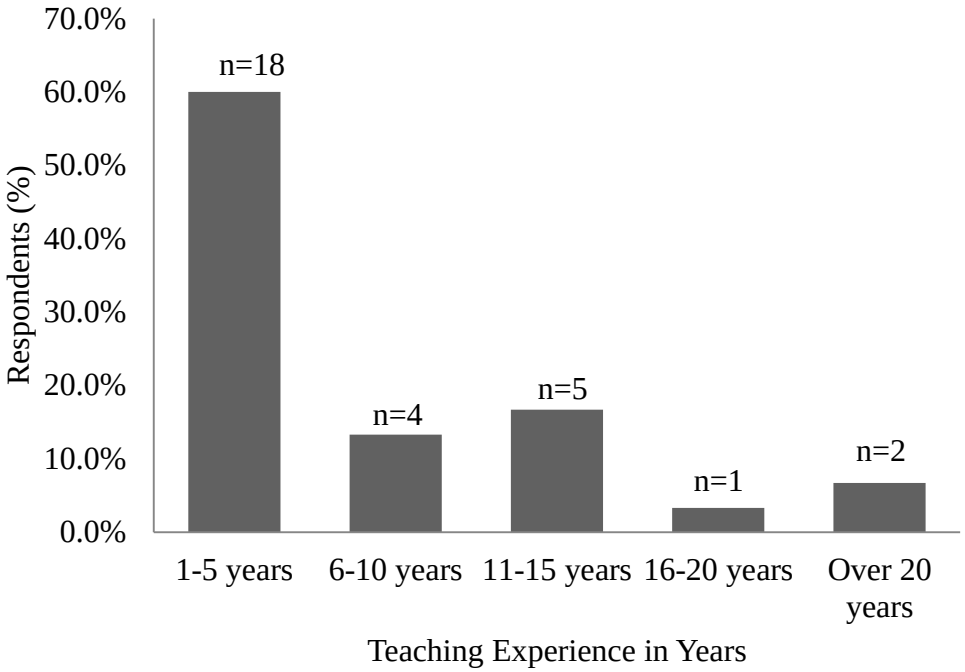
$34,999, 10% (n=3) ended with a salary between $35,000 and $39,999, 10% (n=3) ended with a salary between $40,000 and $44,999, 13.3% (n=4) ended with a salary between $45,000 and $49,999 and finally 23.3% (n=7) ended with a salary over $50,000 (Figure 9).

Figure 9. Female Respondents Beginning and Ending Salaries Compared



Of the 30 respondents who have taught secondary agricultural education, 60% (n=18) taught 5 years or less and would be considered beginning teachers, 13.33% (n=4) taught 6-10 years, 16.66% (n=5) had 11-15 years of experience, 3% (n=1) had 16-20 years of experience, and only 2 respondents (6.66%) had over 20 years of experience.

Figure 10. Female Secondary Agriculture Teaching Experience in Years



Of the 18 respondents that were not currently teaching secondary agriculture, 94.44% (n=17) were currently employed while 5.56% (n=1) were unemployed. Of the 17 respondents that were currently employed, six (35.2%) were working in extension as either an educator or in 4-H youth development or with FFA (Table 3).

Table 3. Employment Titles for Agricultural Education Degree Earners Not Currently Teaching

Respondent	Job Title
48	Extension Educator
47	Seasonal Office staff for X Outdoor Center
42	Program Technician
37	Administrative Assistant Senior
34	Operations Manager
33	Extension Educator
31	Extension Professor in Family and Consumer Sciences
30	Program Specialist
24	Owner/operator for X Farm
22	Associate Director, X Lab
20	Research Engineer
14	Post Secondary Instructor
11	Production Supervisor
7	County Extension Educator 4-H Youth Development/Livestock
5	Manager of X Distribution
3	State FFA Coordinator
2	4-H Youth Development Specialist

Objective 3: Identify the perceived barriers faced by female degree earners upon graduation with a degree in Agricultural Education.

The respondents were asked an open-ended question: what do you perceive to be the greatest challenge faced by female agricultural education graduates? The most common words that were presented included: ability, acceptance, community/support, experience, family, life, perception, stereotyping, teachers/administrators, and none. A total of 46 respondents answered this question (95.83%) while 4.17% (n=2) skipped the question. All of the comments provided were included. Responses were divided into categories with response being assigned to only one category:

1. Acceptance:
    a. Respondent 35: “Some of the male students not thinking you know what you are talking about.”
    b. Respondent 5: “Acceptance in the field and pay.”
    c. Respondent 41: “I think that the presumption that they will get married and move away is challenging. There's also a bit of an "old school" mentality in some communities that causes people to believe that women don't have the ability to manage a class of high school boys that are rough around the edges.”
    d. Respondent 18: “Acceptance in the role, because this is still a male dominated career path.”
2. Community/Support:
    a. Respondent 32: “Being perceived in the community as an individual who knows nothing about agriculture.”
    b. Respondent 29: “Regardless of gender, you have to have the community support for a successful program. Administration & other teachers will come & go but your community will stay the same.”
    c. Respondent 19: “The perception of community members (parents, etc) that a female doesn't know how to teach/participate in shop curriculum.”
    d. Respondent 1: “Lack of support for education by community leaders.”
    e. Respondent 37: “Gender bias in some communities, especially with regards to production agriculture and shop related lessons.”

3. Experience:
    a. Respondent 40: “I think a lot of them don't have a strong agricultural background.”
4. Family:
    a. Respondent 46: “The dichotomy of trying to be the best teacher and advisor and being there to support their own family and children (when they come along). When I was really struggling emotionally with leaving my first two children with a childcare provider a colleague once said to me: "Men often feel like they are not providing enough for their family if their salary is not where they want it to be, and women often feel like they are not providing if they cannot put in the hours at home that they would like to." Six years have gone by since that time and in my personal experience of talking to other fathers and mothers I have found this to be very true. It is not gender bias, it is just something often innately deep inside fathers and mothers.”
    b. Respondent 45: “Balancing home and work commitment, esp w children.”
    c. Respondent 38: “Initially, I didn’t feel there were any. Like most men, I was able to put my entire life into school/FFA. It wasn’t even too hard with just one child because I brought her everywhere. When I had the others, it just became too difficult....time, money, etc. For example, we are training teams intensely the week that school is out....for most teachers, it is just a donation of time. For me, it is time away from my kids AND an additional $70 per day for daycare for me to DONATE time that I can’t count towards my extended because I will be WAY over my 38 days as it is. If my kids fall sick, I either

let my co-workers or FFA kids down by not showing up...or face huge guilt by asking someone to come babysit a child who is sick and just wants their mom."

d. Respondent 33: "Balancing family and career. Especially in the Extension system with extended hours of service during weekends and evenings."
e. Respondent 30:" Balancing professional life and home life."
f. Respondent 27: "Time management between work and family."
g. Respondent 21: "Balancing marriage, and starting a family. I took six years off when my kids were little - because screaming kids have no place in meetings and it's not fair to my students to have to chase my kids."
h. Respondent 15: "Having to choose between FFA/ school and family responsibilities."
i. Respondent 12: "Balancing family and work and finding the right helpmate to live with us. Also having students/parents who will live with our children growing up in the chapter right along with their children, there are just times when we cannot up and leave our kids home with dad (newborns). I remember bringing my newborn daughter to IVATA summer conference (she will be 16 next month) I was really looked down on - it seems to be slightly more tolerated as more women have entered the field, but the young women are still very self-conscience. Also the feeling of guilt when we miss something - trying to be in 2 places at once last night I left a CDE early to see that same daughter from the above story be inducted into the National Honor

Society, I got to the ceremony just as it was ending. Missed the end of the CDE and missed seeing her big moment...how do you choose?"

j. Respondent 8: "Balancing a career and family. I don't think I will be able to do a good job as an ag teacher and be a good mom. I see other women who have families struggle with this that already have children. It seems like the when children come into the picture the ag program then tends to go downhill."

5. Life:
    a. Respondent 43: "Depends on the person."
    b. Respondent 34: "Teaching in any school is a challenge, but I think for women ag teachers it is finding a program where you can best utilize your talents without getting buried by your weaknesses."
    c. Respondent 11: "There are many great opportunities out there for female agricultural education graduates, one challenge may be finding those opportunities in a desired location. Many students in agricultural programs, not just female, desire opportunities to utilize their education and skills near where they were raised. Often there is not an abundance of available positions when they are facing entering the workforce."
6. Perception/Ability:
    a. Respondent 44: "Perception of lack of experience in agricultural mechanics or fabrication. Perception of lack of competence in dealing with male students."

b. Respondent 28 stated, “How we are perceived in our ability to teach Ag Mechanics type of courses.”
c. Respondent 23 wrote, “One thing I have had a problem with is not only being female but being young. Teaching ag mechanics my students come in not respecting me because I am female and young. I have discipline problems from students who have other male older teachers that do not have the same problem. It takes time in the shop to prove yourself as a teacher. It is still an uphill battle with some students.”
d. Respondent 20 stated, “Perception of skills, etc, when considered by older male educators, farmers, ranchers, etc.”
e. Respondent 36: “People will occasionally second guess what you do because you are a female.”
f. Respondent 7: “jobs...slowly I'm seeing more females going into teaching, but I'm thinking those hiring may still want a male taking on the jobs??”

7. Stereotyping:
    a. Respondent 48: “stereotyping.”
    b. Respondent: “Stereotyping.”
    c. Respondent 26: “Their own belief in gender inequality.”
    d. Respondent 14: “Overcoming the stigma that females cannot operate machinery or work in a shop environment.”
8. Teachers and Administrators:
    a. Respondent 25: “I think it's tough to network and get to know other ag teachers in the state when you're female. Lots of the 'circle' in Idaho is still a

good ol' boys club. Being a young teacher, and a girl, make it tough to network, I think."

b. Respondent 2: "Times have changed a lot from when I was starting my career. I think sometimes administration, especially males, don't feel that females can handle discipline issues and shop classes."
c. Respondent 39: "Not being immediately accepted as an equal. A woman, unlike a man, must prove herself and earn the respect of the male teachers. (Of course this was more than a decade ago.)"
d. Respondent 22: "A lack of mentors. How are we supposed to know how to balance life and work if we never see any other women doing this?"
e. Respondent 16: "Our own self confidence. I my opinion there are as in all professions either you have it or you don't. There are a lot of great ag. teachers out there both male and female, life is what you make of it! However, I will say one of the biggest challenges that I faced came more from the industry, and trying to get the same deals at my department vs. what other departments with Male teachers where getting was sometimes difficult. (I felt that sometimes they would try to stick it to ya, if you will). It took time to build the relationships. Additionally, I had a smaller program than others in my district. On the same hand I had some suppliers that were great and would really work with me."

9. None:
    a. Respondent 13: "I do not perceive any challenge faced by specifically female agriculture education graduates."

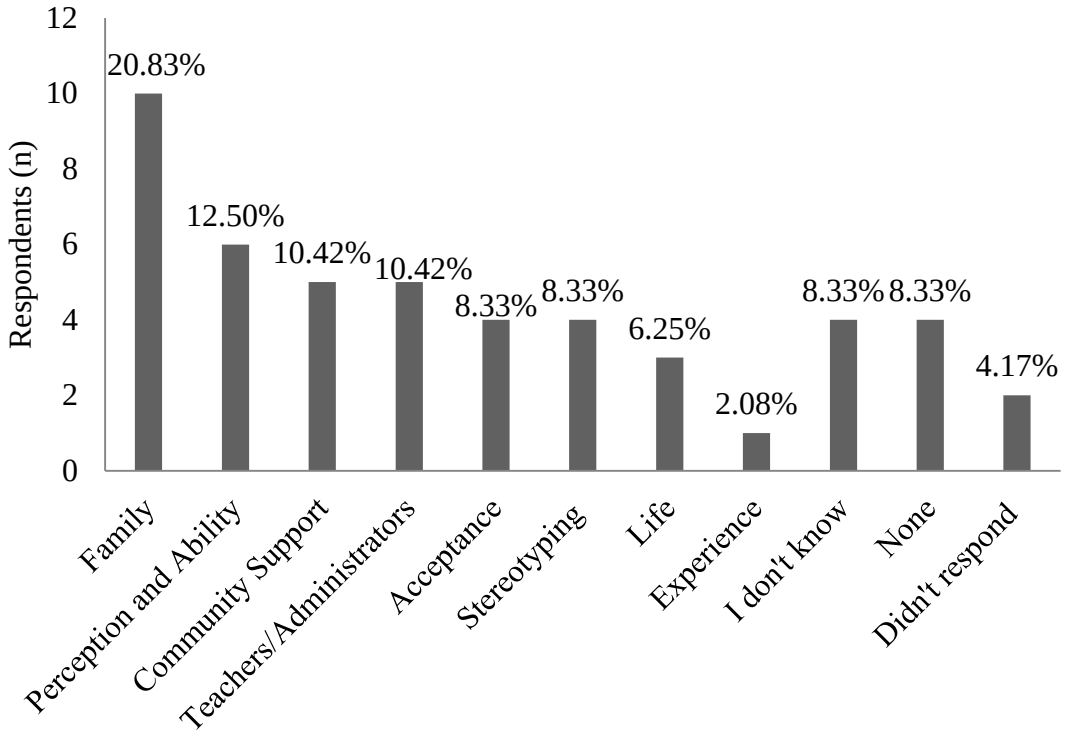
b. Respondent 6: “none!”

c. Respondent 4: “I don't feel like I had any challenges because I was female.”

d. Respondent 3: “I don't feel as if I had any different challenges than a male graduate. However, I understand if others felt the need to be a mother or something like that - but my challenges were self-inflicted, and not because I was a girl.”

Of the 46 respondents to this particular question, 20.83% (n=10) felt that family was the greatest barrier, only 2.08% (n=1) felt that experience was the greatest barrier (Figure 11).

Figure 11. Female Agricultural Education Degree Earners Perceived Barriers to Teaching



Objective 4: Describe the rationale of secondary female agricultural education graduates for not entering the teaching profession.

Of the total respondent pool (n=48), 18 (37.5%) respondents indicated they never taught or entered the teaching profession. Of those who had never taught, 16 (88.8%) actually indicated what their reasoning was behind not entering the profession. The factor that weighed most heavily ($\overline{X}$=3.43) was personal reasons with Professional Development ($\overline{X}$= 2.36) and level of preparedness ($\overline{X}$=2.21) rounding out the top three reasons. The least important factors (disagree to strongly disagree) were the opportunity to enter graduate school, health related, and family support ($\overline{X}$=1.43). The mean responses were reported to indicate the trend of responses on the Likert-type scale not to indicate central tendency (Table 4).

Table 4. Reasons Why Female Agricultural Education Graduates Chose Not to Teach

Reasons Females Chose Not to Teach	Mean
Personal Reasons	3.43
Professional Development	2.36
Level of Preparedness	2.21
Salary Competitiveness	2.21
Salary not reflecting effort	2.14
Other	2.10
Out of Class Expectations	2.00
Time and/or Resources	1.93
Credential Process	1.86
Rigor of Teaching	1.86
Commute Length (Place Bound)	1.79
Discipline Problems	1.79
Community Support	1.64
Support from Colleagues	1.64
Administrative Support	1.57
Family Support	1.43
Health Related	1.43
Opportunity to enter Graduate School	1.43

The 6 respondents (37.5%) who chose other were asked to identify other reasons for their career decision. Their comments included:

- Respondent 37: “program not offered in my school district, where I worked as a long-term substitute for eleven years
- Respondent 24: “My graduate and undergraduate degrees were not completed with the idea of pursuing a degree in secondary agricultural education. I completed my Master's degree with the intention of being qualified to apply for Extension educator positions.”
- Respondent 19: “Chose to stay home with my children.”
- Respondent 14:”Position availability in my special emphasis area”
- Respondent 7: “just decided to work for the X Business”
- Respondent 2: “Another opportunity came up and I took it that wasn't related to teaching at the secondary level.”

The female graduates were asked how satisfied they were with their decision to not teach. Half of the respondents (50%, n=8) indicated their reason for deciding to not teach was a better opportunity presented itself. Similarly, half of the non-teaching respondents (n=8) agreed that the University of Idaho assisted them satisfactorily for the teaching profession. Six respondents (37.5%) strongly disagreed that their student teaching experience was not what they expected. However, only 8% (n=2) of the non-teaching respondents perceived gender to be a factor in their decision not to enter the secondary classroom. Respondents agreed to strongly agreed ($\overline{X}$ = 4.19) that better available opportunities was the primary reason the graduates chose not to teach. The respondents generally disagreed to strongly disagreed ($\overline{X}$ = 1.87) that they were asked discriminating

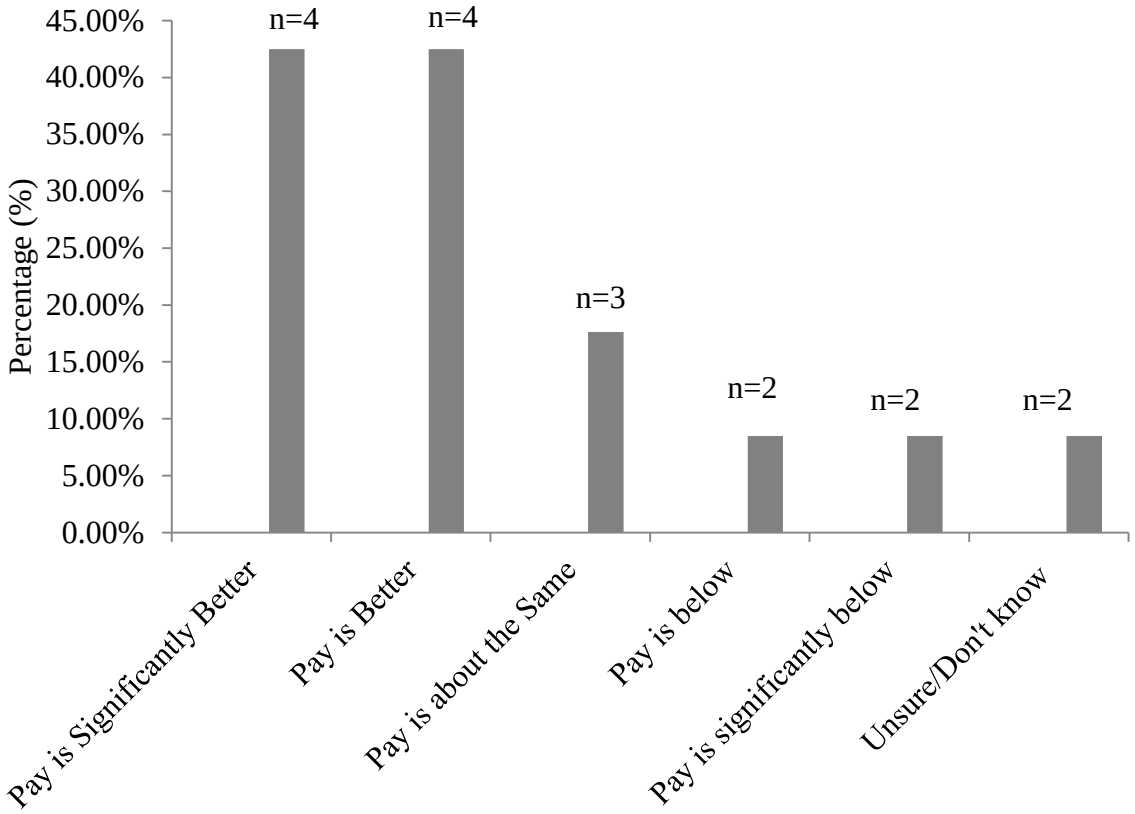
questions during their job interviews. The mean responses were reported to indicate the trend of responses on the Likert-type scale not to indicate central tendency. (Table 5).

Table 5. Level of Satisfaction by Female Agricultural Educations Graduates Decisions to Not Teach

Level of Satisfaction with Decision to Not Teach	Mean
A better opportunity presented itself and I decided to take it.	4.19
I am satisfied with the University of Idaho's assistance in helping prepare me to attain a teaching position.	3.27
I did not feel prepared to enter a career in teaching.	2.40
I felt there was a lack of support from the State Department of Education (Career/Professional Technical).	2.33
I felt gender was a factor when applying for teaching positions and this was discouraging.	2.20
My student teaching experience was not what I expected.	2.13
There was too much emphasis on academic subjects instead of secondary agriculture subjects.	1.93
I was asked discriminating questions during a teaching job interview.	1.87

The respondents were also asked to compare their current career path pay to their perception of secondary agricultural education teacher salary. Seventeen (94.4%) of the 18 non-teaching respondents rated the comparison on a Likert-type scale: the pay was significantly better (5), the pay was better (4), the pay was about the same (3), the pay was below (2), the pay was significantly below (1) or unsure/don't know. The most respondents (42.5%, n=4) felt their career currently paid significantly better than secondary teaching. Another 4 respondents (42.5%) felt that the pay was better, while 17.64% (n=3) felt the pay was about the same. Another 8.50% (n=2) felt the pay was below what a secondary teacher was earning, and 8.50% (n=2) felt the pay was significantly below. Of the total 17 respondents, 8.50% (n=2) were unsure about how much their current career pays compared to secondary teaching (Figure 12).

Figure 12. Non-Teacher Perceptions of How Teaching and Non-Teaching Salaries Compared



Finally; the respondents whom have never taught but are currently employed (n=17), where asked how their agricultural education degree prepared them for their current career path. This was an open-ended question and their comments were categorized as follows: Education, Experience, General Understanding, Leadership, and Requirement. The comments provided by the respondents were categorized as follows:

Education:

1. Respondent 47: "my degree didn't prepare me for my current job but I had a summer internship as part of my education that helped prepare me for my career."
2. Respondent 20: "I research cyber security - my coursework was in directly related areas."

3. Respondent 14: “Gave me the pedagogy background I needed to understand student learning in my courses.”
4. Respondent 5: “I would not have been able to get to this career without my degree. My degree helped me with understanding people, leadership, teaching, budgets, training, etc.”
5. Respondent 2: “Yes.”

Experience:

1. Respondent 42: “how I learn and how adults learn.”
2. Respondent 34: “Excellent experience dealing with people and specifically with performance reviews of myself and others.”
3. Respondent 31: “MS in Ag. Extension and Education prepared me for this position.”
4. Respondent 7: “In a lot of ways...all the classes I took helped tremendously...although it was also a combination of work experience and school that did it.”

General Understanding:

1. Respondent 30: My associate’s degree prepared me with a general understanding of agriculture to include animal science, plant science, soil science and business management. My undergraduate degree was in public communication where I studied a variety of communication practices such as public speaking, group communication, gender and communication, marketing, etc. My master’s degree is in Agricultural Education. This degree was helpful because I was able to take educational research classes, agricultural leadership and agricultural extension

courses. It helped to prepare me to continue my education and explore research topics that would be beneficial to my current career."

2. Respondent 22: "My degree in agricultural education gave me a broad knowledge of agriculture that I still use to understand what is going on in my projects. I learned about how people learned which prepared me for my PhD (which I am currently working on in addition to working)."
3. Respondent 11: "Agricultural and Business coursework."
4. Respondent 3: "Allow me to understand agricultural education in many different facets, and network with students and teachers across the state."

Leadership:

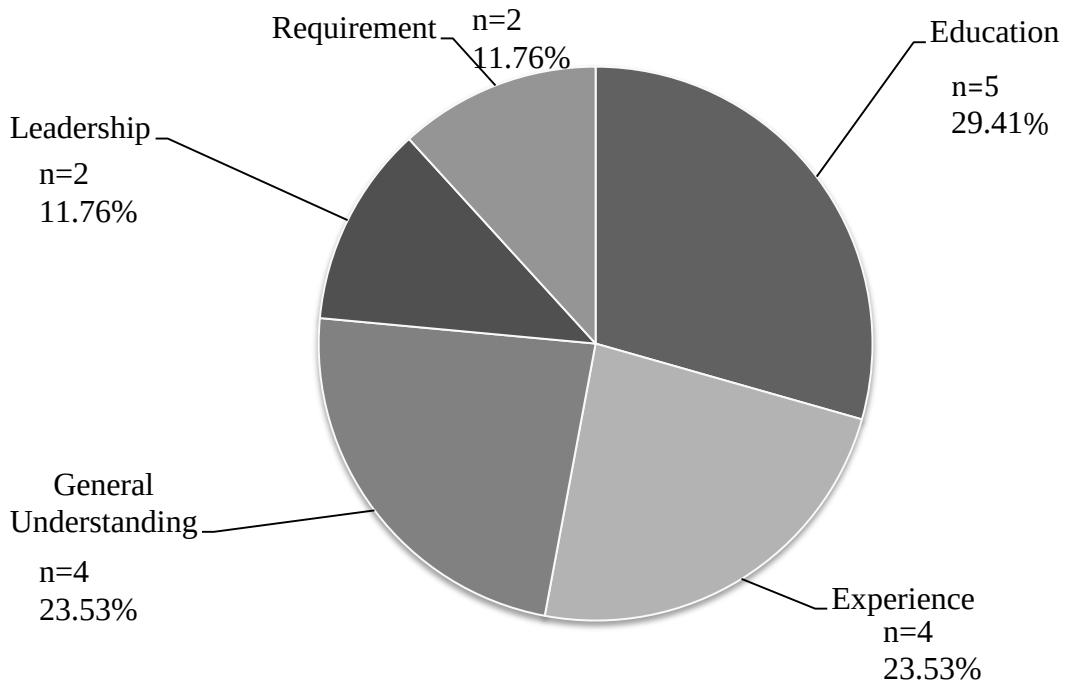
1. Respondent 37: "people, organizational, leadership and business skills."
2. Respondent 33: My degree gave me the needed background for teaching, organizational leadership, and research skills."

Requirement:

1. Respondent 48: "it is required."
2. Respondent 24: "I have a B.S. in Animal Science as well as my Master's degree in Extension Education."

When the responses were categorized, 29.41% (n=5) felt that their education (degree in hand) is what prepared them for their career while 23.53% (n=4) felt that it gave them the experience they needed to apply for the job they were looking for. Another 23.53% (n=4) felt their degree gave them a general understanding of agriculture, while 11.75% (n=2) felt it gave them some leadership skills and another 11.75% (n=2) stated that it was a requirement to have their current position (Figure 13).

Figure 13- Non-Teaching Female Graduates Perception of Ag Ed Preparation for Current Career



Objective 5: Describe the rationale of secondary female agricultural instructors for maintaining employment as a secondary agricultural instructor.

Of the 48 total respondents, 30 (62.5%) were either currently teaching or had taught secondary agriculture at some point in their career. Three content areas were taught by over 80% of the teaching respondents. A vast majority of the teaching respondents (93.3%, n=28) had been responsible for teaching content related to animal science. The second most commonly taught curriculum was Introduction to Agriculture (90.0%, n=27) followed by FFA content (86.7%, n=26). However, four content areas were taught 20% or less of the teaching respondents: Marketing (20%, n=6), Companion Animals (16.7%, n=5), Hydroponics (10%, n=3), and Aquaculture (3.3%, n=1). However, 36.7% (n=11) selected other. When the teaching respondents (n=30) selected other they were asked to identify the content area they taught:

1. Respondent 46: “Small Engines.”
2. Respondent 45: “Veterinary Science and Floral.”
3. Respondent 40: “Biology, Earth Science, and Life Science.”
4. Respondent 39: “Pre-Algebra, Conceptual Physics, Biology, General Science.”
5. Respondent 38: “Veterinary, Greenhouses.”
6. Respondent 32: “Earth Science and Small Engines”
7. Respondent 29: “Small Engines and Speech.”
8. Respondent 15: “Ag Science- Biology, Natural Resources, Ag Structures, Small Engines, Floriculture.”
9. Respondent 13: “Floriculture, Wildlife.”
10. Respondent 12: “Agricultural Science, Woods, Natural Resources/Environmental Sciences.”
11. Respondent 10: “Plasma Cam.”

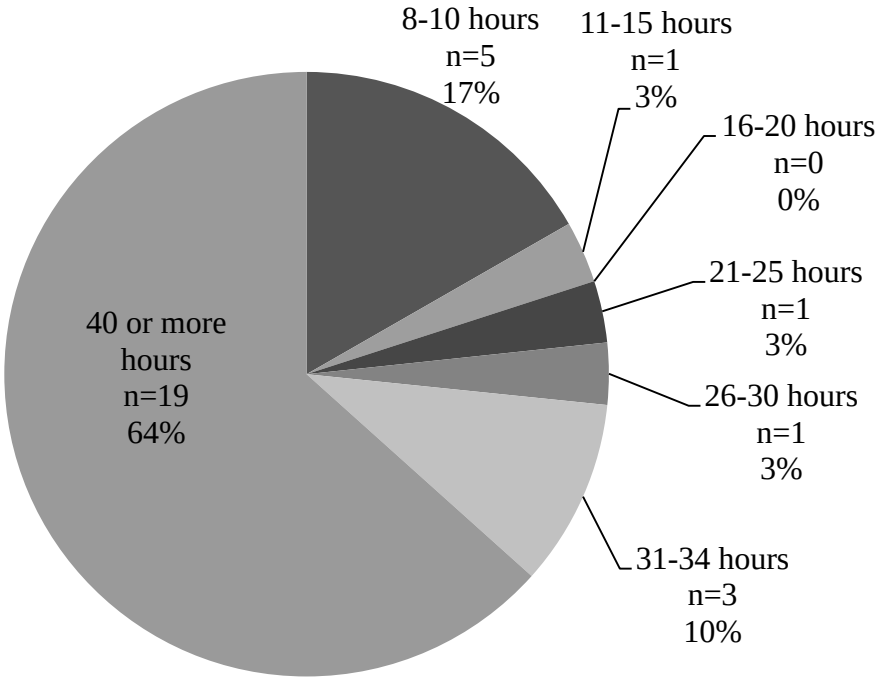
Content area responses were provided in 261 content areas from the 30 teaching respondents for an average of 8.7 different courses taught by teach teaching respondents (Table 6).

Table 6. Courses and Content Taught by Female Agricultural Education Graduates

Course/Content Taught	Percentage	Respondents (n)
Animal Science	93.3%	28
Introduction to Agriculture	90.0%	27
FFA	86.7%	26
Leadership	76.7%	23
Plant Science	76.7%	23
Horticulture	70.0%	21
Agriculture Mechanics	66.7%	20
Welding	60.0%	18
Soil Science	40.0%	12
Other	36.7%	11
Agriculture Business	33.3%	10
Equine Science	30.0%	9
Food Science	30.0%	9
Fabrication	30.0%	9
Marketing	20.0%	6
Companion Animals	16.7%	5
Hydroponics	10.0%	3
Aquaculture	3.3%	1

The teaching respondents (n=30) were also asked how many hours a week they spent in the classroom. Of the teaching respondents, 63.3% (n=19) indicated they spend 40 or more hours, 10% (n=3) indicated they spend 31-34 hours, 3.3% (n=1) indicated they spend 26-30 hours a week, another 3.3% (n=1) spend 21-25 hours a week, none of the respondents (n=0) indicated they spend 16-20 hours a week, 3.3% (n=1) stated they spent 11-15 hours, and 16.7% of the respondents (n=5) indicated they spent 8-10 hours a week in the classroom (Figure 14). It was important to note that full time and part time employment was not addressed within the survey.

Figure 14. Average Hours Spent per Week in the Classroom by Female Agricultural Education Instructors



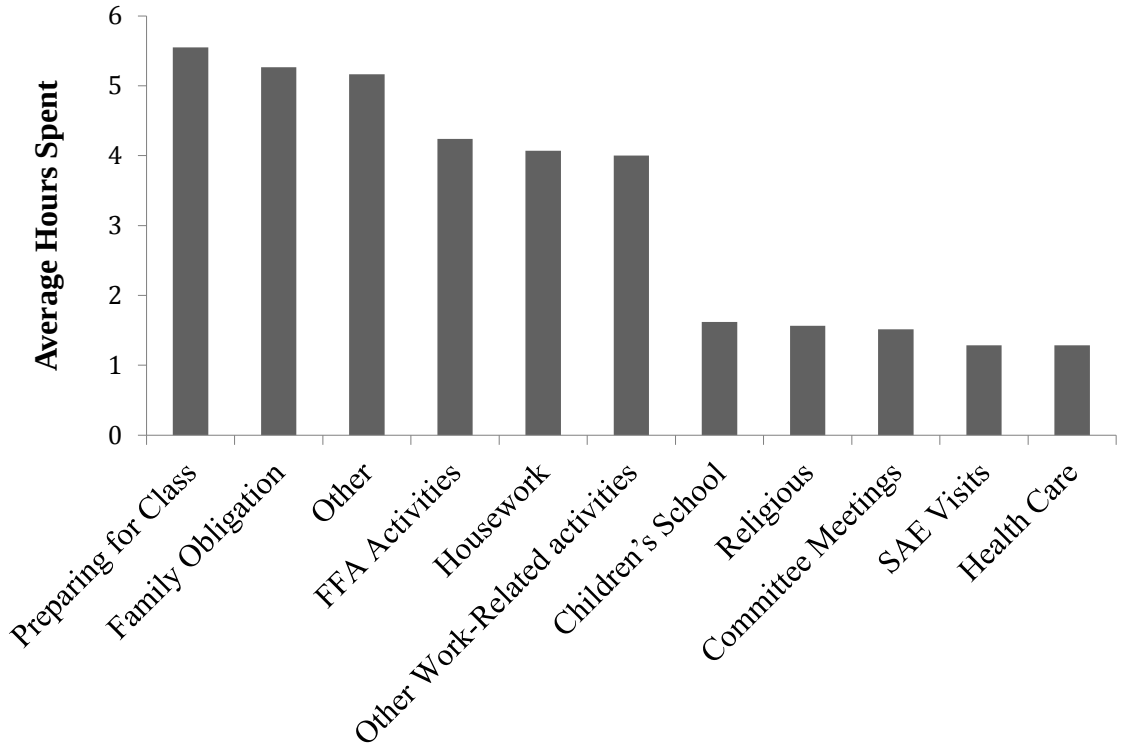
To further define the weekly time commitment of teachers, respondents were asked to clarify the amount of time they spend on activities related to classroom preparation and their personal life. Teaching respondents (n=30) spent an average of 5.55 hours preparing for class (n=29) closely followed by family obligations averaging 5.26 hours a week (n=30). Twelve of the respondents selected other and indicated on average they spend 5.16 hours (n=12) on those other areas:

1. Respondent 43: “Not currently teaching.”
2. Respondent 40: “Farming.”
3. Respondent 38: “Family livestock/irrigation/outside things.”
4. Respondent 23: “study time for additional praxis.”

5. Respondent 18: “I no longer teach but am politically involved and do volunteer work.”
6. Respondent 16: “I am answering this based on when I was teaching.”
7. Respondent 12: “Volunteering.”

Additionally, respondents averaged the most time in the following areas: 4.24 hours (n=29) on FFA activities, 4.06 hours on housework (n=29), and 4.00 hours (n=29) on other work related activities. Less time was spent on the following activities: 1.62 hours on children’s activities (n=29), 1.56 hours (n=30) on religious activities, 1.51 hours (n=29) on committee meetings, 1.28 hours (n=28) on SAE visits and 1.28 hours (n=28) on health care (Figure 15).

Figure 15. Average Hours Spent on Related Activities per Week by Female Respondents



The respondents who were teaching at the time of the study asked to specify how certain items weighed on their decisions to teach secondary agriculture. The factor that weighed the most heavily ($\overline{X}$=3.73) was personal reasons with Family Support ($\overline{X}$= 3.27) and level of preparedness ($\overline{X}$=2.93) rounding out the top three reasons. The least important factors were opportunity to enter graduate school ($\overline{X}$=1.87), credential process ($\overline{X}$=1.87), other ($\overline{X}$=1.75) and health related activities ($\overline{X}$=1.73). The mean responses were reported to indicate the trend of responses on the Likert-type scale not to indicate central tendency (Table 7).

Table 7. Reasons Why Females Chose to Teach Secondary Agriculture

Reasons Females Chose to Teach	Mean
Personal Reasons	3.73
Family Support	3.27
Level of Preparedness	2.93
Time and/or Resources	2.67
Community Support	2.57
Professional Development	2.53
Support from Colleagues	2.53
Out of Class Expectations	2.43
Administrative Support	2.37
Commute Length (Place Bound)	2.23
Rigor of Teaching	2.03
Salary not reflecting effort	2.03
Salary Competitiveness	2.00
Discipline Problems	1.97
Credential Process	1.87
Opportunity to enter Graduate School	1.87
Other	1.75
Health Related	1.73

The respondents who selected other were asked to further clarify their responses:

1. Respondent 43: “Currently not teaching.”
2. Respondent 40: “Loved agriculture and FFA.”
3. Respondent 38: “I just loved FFA and wanted to share those opportunities with others.”
4. Respondent 29: “Options to stay in agriculture & opportunity to continue in production Ag with family.”
5. Respondent 12: “Work with the FFA.”

Finally, the respondents were asked to rate their level of satisfaction with their teaching experience on a Likert-type scale. The most satisfying part of teaching for the respondents was the positive experiences and working relationships they had with their students ($\overline{X}$=4.50) followed by the positive experiences and working relationships they had with other teachers at their school ($\overline{X}$= 4.14). The respondents were also highly satisfied with positive experiences and working relationships with community members ($\overline{X}$=4.10) along with the positive experience and working relationships with advisory committee members ($\overline{X}$=4.07). There was also strong agreement from the respondents that they enjoy their teaching position with 80% (n=24) of the respondents showing they either agree or strongly agree with the statement. When discussing positive relationships the respondents were least satisfied with the relationships they had with parents ($\overline{X}$=3.97) and administrators ($\overline{X}$=3.37). In regards to the respondents preparedness and satisfaction with the University’s assistance in obtaining a teaching position, 73% (n=22) either agreed or strongly agreed with their assistance. The respondents disagreed with the statements regarding gender with 60% (n=18) disagreeing with the statement that gender has been a barrier to their career success.

Likewise 65% (n=19) stated they disagreed or strongly disagreed that gender has been a barrier to their overall career enjoyment. The mean responses were reported to indicate the trend of responses on the Likert-type scale not to indicate central tendency (Table 8).

Table 8. Level of Satisfaction with Teaching Experience by Female Graduates Whom Have or are Currently Teaching

Level of Satisfaction to Teach	Mean
I have had positive experiences and working relationships with my students	4.50
I have had positive experiences and working relationships with other teachers at my school	4.14
I have had positive experiences and working relationships with community members	4.10
I enjoy my teaching position	4.07
I have had positive experiences and working relationships with advisory committee members	4.07
I am satisfied with my University's assistance in helping prepare me to attain a teaching position	4.03
I have had positive experiences and working relationships with parents	3.97
I have had positive experiences and working relationships with my administration	3.37
Gender has been a barrier to my career success	2.33
I was asked discriminating questions during first job interview	2.30
Gender has been a barrier to my career enjoyment	2.24

Objective 6: Describe perceived barrier, obstacles, and challenges faced by secondary female agricultural instructors.

Of the 30 respondents who are currently or have taught, 46.67% (n=14) stated they have felt barriers or challenges due to their gender while 53.33% (n=16) reported they did not feel any challenges or barriers based on their gender.

The 14 teaching respondents who had a perceived barrier were asked to further specify what those challenges or barriers were. They were broken into the following categories; Family, Gender, Teachers/Administrators, and no comment.

1. Family:
    a. Respondent 38: “This is a career that can consume your life. There are all the standard expectations of teaching/dealing with students/communicating with parents/special ed/funding/etc....but add FFA training, PTE forms, time to shop for supplies for class and FFA, advisory committees, alumni committees, fund raisers, trips, professional development, SAE, greenhouse time, etc....it is very hard to be viewed as "successful" if you don’t excel at all of the above and more. When I made the decision to trim as much of the "extra" time I spent doing things that I wasn't paid for in order to be a MOM and nurture my own children/family, I lost the position of department head (after teaching for 15 years) and many people view me as having sort of quit or not putting any effort into FFA. I teach with a WONDERFUL partner, but I KNOW that he in no way understands why there are so many things I just can’t do anymore (mostly extra hours of time) and he feels he has to pick up a ton of slack in order for our FFA chapter to be successful. I have to just remember that my primary job is TEACHING, and that I have 38 days extra I am paid for....nothing else. My own children are the most important thing...and anything else I can manage is just bonus.”
    b. Respondent 15: “In a multiple teacher program with two other males, it has been difficult to convey my need to put the needs of my young family above

school and FFA responsibilities. I feel guilty for missing FFA events when I choose a family responsibility instead. In a single teacher program, I was able to better set boundaries and time schedules that worked with my family's needs. I am moving back to a single teacher program this year for that reason. It is difficult to move programs because it feels like a first year all over again. I thought moving to a multiple teacher program would allow me more freedom to work with my family schedule, but it has made it more difficult. At least in a single teacher program, I can say yes or no to events or activities with FFA when in a multiple teacher program I have to make a choice whether to attend or not which is hard when I want to be involved in everything. I also had a need to take my young daughters with me on long or overnight trips when they were nursing. My first school told me I needed to leave my baby home when I took students to National Convention even though my mom was paying her own way to come and care for the baby during times when I needed to be with students. I cancelled the trip which made students and parents upset. I think being a young working mom is hard in any career, but with the extra hours and duties of secondary agricultural education, it is very difficult- possible with the right support, but difficult. I've taken my kids to NAAE and IVATA conventions and always felt as though it were an intrusion and they were not welcome. This attitude that prevails needs to change if the profession wants to keep young mothers in the field."

2. Gender:
    a. Respondent 44: “In my first job application I was told the school would NEVER hire another woman.”
    b. Respondent 41: “I feel like parents and administrators don't take me seriously because I'm young and a woman. I feel like I constantly have to prove to parents that I have the knowledge and experience to do my job, and that if I were an older male, I wouldn't be under such scrutiny all the time.”
    c. Respondent 39: “As a young agriculture teacher, I experienced barriers not at my school or with my parents or community, but with the other agriculture teachers. It was difficult starting out to be seen as a serious, professional and capable teacher, when many male agriculture teachers treated me like I was a lady that taught flowers. (I began teaching horticulture.) Over a handful of years, forming relationships with many of my fellow ag teachers, it became much better and I began to be treated with respect as an equal. My first experience with this was fellow class members in my graduating class told me point blank that they believed they would be better shop teachers than I...because I was a woman.”
    d. Respondent 32: “I felt that the community that I taught in was not really receptive to a female teaching agriculture. On the first day, week, and month of school, students and parents questioned and challenged my abilities to teach the students agriculture and shop related activities. I never really felt that the community and I fit together. Even after the school year came to an end. I had personal barriers as well. One being the loss of a personal friend,

who was a fellow Agriculture Education classmate that I shared I called for encouragement on a rough day and shared my success with, took the joy out of my teaching experience."

e. Respondent 25: "1. Subject areas assigned to teach- tend to be topics/classes typically assigned to female ag teachers (as opposed to males) 2. Attitude of co-teachers - some condescending behavior towards unfamiliarity with subject area - seemed to stem from my gender."

f. Respondent 17: "Told in first interviews they could not hire a woman to teach agriculture, so I pursued a job teaching math and science."

g. Respondent 12: "My first job was on the reservation at X High School. My principal was biased toward all of the women teachers, not just because I was the ag teacher, he would corner me in the hall and yell and scream at me, he was very abusive. My current principal is dismissive of ideas that I give him. My husband (who also teaches in the same school) gives him the same ideas and he likes them. Again this is just toward me, it is toward most of the women on staff as we have tested among a number of us."

h. Respondent 1: "Gender and geographical location of education. (I taught in Florida)."

3. Teachers/Administration:

a. Respondent 21: "When I first started teaching Ag back in the early 1990's, there were advisors from other chapters who would disregard me in conversations. Of course, this was back when there were only three females teaching in the state....things have changed immensely for current day."

b. Respondent 10: “Barriers that has been faced have mostly occurred because of shop classes. Doubts from administration that I can't teach these classes.”

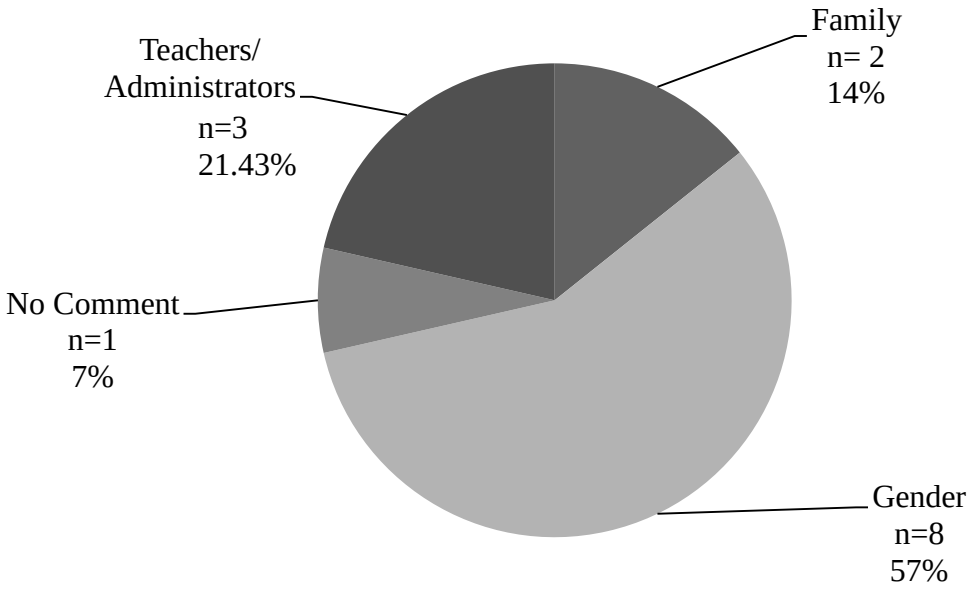
c. Respondent 9: “I am no longer an ag teacher, but when I was I found that other ag teachers were dismissive at best, and sometimes actively interfered with my work. Especially in Oregon, where I wasn't known well. But this was a long time ago - the early 1980s.”

4. No Comment:

    a. Respondent 45: “Decline to answer.”

Of the 14 teaching respondents to this question, 57.14% (n=8) felt that gender was the greatest barrier or challenge faced, 21.43% (n=3) felt that teachers or administrators was the greatest barrier or challenge faced, 14.29% (n=2) felt that family was the greatest barrier or challenge. Finally 7.14% (n=1) chose not to comment on what they felt was the greatest barrier or challenge (Figure 18).

Figure 16. Perceived Barriers Faced by Current Secondary Female Agricultural Instructors



CHAPTER V

SUMMARY, CONCLUSIONS, OBSERVATIONS, AND RECOMMENDATIONS

RESULTS

A survey was sent through Survey Monkey to sixty nine identified graduates from the University of Idaho Department of Agricultural and Extension Education having earned a degree in Agricultural Education. Of the 69 graduates invited to participate in the survey, 48 responded yielding a 69.6% response rate. Six objectives were identified and will be discussed in more detail. The female gradates helped identify their demographical information, employment status, perceived barriers by all females who have a degree in Agricultural Education, rationale for females not entering the teaching profession, rationale for females deciding to enter the profession, and finally the perceived barriers, obstacles, and challenges that female agricultural instructors face.

Objective 1: Describe the female students graduating with a Bachelor of Science Degree in Agricultural Education from the University of Idaho.

The University of Idaho Advancement Information Office (2014) provided a complete list of female graduates with degrees in Agricultural Education from the University of Idaho Department of Agricultural and Extension Education since the department's creation in 1928. The first female BS degree graduate in Agricultural Education was in 1979. The total number of female graduates from the University of Idaho with a Bachelor's Degrees in Agricultural Education (teaching option) was 69 women, all of whom were invited to participate in the study.

The age of the respondents ranged from 35 years old or younger (56.3%, n=27) while 43.75% (n=21) were 36 or older at the time of the study. Of the respondents, 65.5% (n=31) were married while 22.92% (n=11) reported being single or never married. The remainder of the respondents were either divorced (6.25%, n=3), remarried (4.17%, n=2), or widowed (2.08%, n=1). Over 60% of the respondents (n=29) indicated they had children while 39.58% (n=19) did not. When asked about their highest level of education 50% (n=24) of the respondents had earned a bachelor's degree, while 41.67% (n=20) held a master's degree, and a small percentage (8.33%, n=4) held either an education specialist or PhD. Nearly 80% (n=35) of the respondents also indicated that they had an interest in increasing their level of education.

Additionally, 68.75% (n=33) of the respondents took agricultural education courses in high school. Of the respondents who did not take agricultural classes in high school (n=15), the major reason they did not take the courses in high school was because the courses were not offered at their high school (80%, n=12). Coincidently, 66.67% (n=32) where members of FFA while 33.33% (n=16) were not involved in the FFA. The only respondent who was taking agricultural classes but was not involved with FFA indicated the she wasn't involved the FFA was because it conflicted with other commitments in high school.

The results of the study were comparable to the respondents studied by Foster (2003) in regard to age, degree, desire to increase education levels, children, involvement in FFA, and enrollment in high school agricultural courses. However at the time of the study, 28% of Idaho secondary agricultural education instructors were women in contrast to Foster (2003) who only identified 15% of secondary agricultural instructor jobs were held by women.

When compared to female agricultural educators in Georgia in 2006, the profile was also very similar. However only 51% of Georgia female instructors had enrolled in high school agricultural education courses and members of FFA (Ricketts, Stone, & Adams, 2006), while almost 70% of Idaho graduates indicated they were involved in FFA and enrolled in secondary agricultural education courses.

Objective 2: Describe the employment status of female graduates immediately after earning a degree in Agricultural Education from the University of Idaho.

Of the total respondents (n=48), 62.58% (n=30) of the women have taught or are currently teaching secondary agricultural education. Of the 30 teaching respondents, 53.33% (n=16) were teaching high school agricultural education at the time of the study, while 46.66% (n=14) have taught but were not currently teaching in the classroom. The remaining 37.5% (n=18) of the respondents had never taught secondary agricultural education.

Of the 18 respondents that were not currently teaching secondary agricultural education, 94.44% (n=17) were currently employed while 5.56% (n=1) were unemployed. Non-teaching graduate job titles ranged from Extension, FFA, Engineering, Managers, Administrative Assistants, to Specialists. The majority of the respondents 55.5% (n=10) were not involved within the agricultural industry, but indicated their degree prepared them for their career of choice.

The starting salary for 80% (n=24) of the teaching respondents was reported at $34,999 or below. The ending salary for 46.6% (n=14) was reported at $40,000 or more. Sixty percent (n=18) of these female instructors had taught for 5 years or less and were considered to be beginning teachers. A beginner teacher was defined as someone whom is

launching their career and obtaining the initial commitment for the position. It is said that this time of adjusting and growing within the profession happens between year one to year six (Christensen & Fessler, 1992). The salary ranged reported were comparable to previous research, even with an 11 year lapse between studies. Foster (2003) reported with 56.5% of respondents with a salary below $35,000, indicating that Idaho had a starting salary which was well below the national average.

The non-teaching respondents were asked to indicate how they perceived their career choice salary compared to secondary agricultural education instructors. For 47 % (n=8) of the non-teaching respondents, their perception was that their salary was significantly better or better than what a secondary educator is paid. Only 23.5% (n=4) of the non-teaching respondents perceived their salary was below or significantly below what secondary agricultural education instructors earned.

Objective 3: Identify the perceived barriers faced by female degree earners upon graduation with a degree in Agricultural Education.

The respondents identified barriers or challenges to females regardless of their profession, teaching or entering a career in another field. The most prevalent barrier or challenge identified was Family (n=10). As evidence, Respondent 38 was over the age of 35, married with 3 children, had been teaching for 11-15 years, and was in the classroom at the time of the study. She indicated that she spent 9 or more hours a week on family obligations. The weight of being a mom was tough, when her kids were sick she felt like she was letting other instructors and her students down by having to juggle both. She also noted that working and the other commitments was time away from her kids with additional costs

for daycare. Similarly, Respondent 45 was over the age of 45, divorced, with 2 children who was not teaching at the time of the study but had for 11-15 years. She indicated that the greatest challenge was simply that balance of home and work, especially with children. Respondent 46 was under the age of 35, married with 4 children, and had taught for 1-5 years but was not teaching at the time of the study. This respondent spoke about family and the struggles of trying to be the best teacher, advisor, wife, and mother. She also experienced struggles with leaving 2 of her children with child-care providers. One of her colleagues told her it's not just a mom thing, men also face challenges because of their gender. For example, men were concerned about enough money to support their family. She also indicated that it's not gender bias, per se, but instead something deep seated inside a father and mother or husband and wife.

Respondent 33 was over the age of 30, married, with no children, and indicated that her greatest challenge was balancing her family and career. She discussed her challenges working in the extension system since she had never taught but was employed in a position that required extended hours of service through the weekends and evenings.

Perceptions that the community, students, or other teachers might have regarding female agricultural education instructors made up 13% (n=6) of the responses received. Respondent 23 was under the age of 25, was not married, doesn't have any children, and had been teaching for less than five years stated that it was challenging being a female and being young especially when teaching ag mechanics. Students didn't respond to her or respect her like they did her older male counterparts. She stated that it "takes time" in the shop to prove yourself and even then it can still be a battle with some students. Respondent 7 was over the age of 40, married without any children, and had never taught high school agriculture. She

stated the biggest challenge was the perception that females were not filling available teaching positions. She was slowly seeing more females getting jobs as secondary agriculture teachers, however many of the administrators responsible for hiring may have still wanted a male to take on the high school agriculture teacher role.

Teachers and Administrators were perceived to be the greatest barrier or challenge to teaching by 11% (n=5) of the respondents. Respondent 25 was under the age of 25, not married, did not have any children, and had been teaching for less than 5 years. She perceived barriers and challenges regarding networking and getting to know other agriculture teachers in the state because she was a female. Her perception at the time of the study was that Idaho was still the "good ol boys" club and being a young woman in the profession was very challenging. Respondent 22 was over the age of 35, divorced without children, and never taught high school agriculture. She indicated that she did not enter the profession due to a lack of mentors. She went on to state: "how can woman know how to balance life and work if they never see another woman doing it?"

The results of this study were contrary to previous research (Foster, 2003) which indicated that the greatest barrier or challenge faced by females was acceptance by administrators and or peers while this research shows it is actually the work/life balance and family. However, the results of this study did support Foster (2003) in that females perceive they still face gender bias within those traditionally male dominated courses of study. Similarly, acceptance and stereotyping were less often perceived as barriers or challenges in both studies.

Objective 4: Describe the rationale of secondary female agricultural education graduates for not entering the teaching profession.

Of the respondents, 18 (37.5%) indicated they have never taught high school agricultural education courses. When evaluating the reasoning behind why females graduated with a degree in agricultural education but chose not to enter the profession the factor that weighed the most heavily ($\overline{X}$=3.43) was personal reasons, with salary competitiveness, ($\overline{X}$= 2.21) and level of preparedness ($\overline{X}$=2.21) rounding out the top three reasons. The least important factors were the opportunity to enter graduate school and family support ($\overline{X}$=1.43).

The non-teaching respondents chose not to teach because a better career opportunity presented itself (50%, n=8). The same respondents generally agreed (50%, n=8) that the University of Idaho assisted them satisfactorily for the teaching profession and 6 of the non-teaching respondents (37.5%) strongly disagreed that their student teaching experience was not what they expected. Only 2 (8%) of the non-teaching respondents perceived their gender to be a factor in their decision not to teach.

Finally, the non-teaching respondents believed that their agricultural education degree helped to prepare them for a career outside of teaching. Their degree provided them with the necessary education to apply for jobs, understand people, teaching skills, understanding of budgets, and how to train people (29.41%, n=5). The non-teaching respondents also indicated the agricultural education degree provided them with the experience needed for their job with learning how adults learn, along with a combination of work experience and school (23.53%, n=4). Finally, their degree provided some with a

general understanding of agriculture, business, provided networking, and public speaking opportunities (23.53%, n=4).

Objective 5: Describe the rationale of secondary female agricultural instructors for maintaining employment as a secondary agricultural instructor.

Of the 30 respondents who were either teaching or had taught, almost every respondent (93.3%, n=28) taught or were currently teaching Animal Science related classes. Closely behind was Introduction to Agriculture (90.0%, n=27), and FFA instruction was being integrated into the courses taught (86.7%, n=26). The content least addressed by the teaching respondents was Aquaculture (3.3%, n=1), Hydroponics (10%, n=3), Companion Animals (16.7%, n=5), and Marketing (20%, n=6). These findings closely align with Foster (2003), who identified FFA, Horticulture, and Animal Science as the content most taught be female agricultural education instructors and the courses less likely to be taught were Hydroponics and Aquaculture.

Of the teaching respondents, 63.3% (n=19) indicated they spend 40 or more hours a week in the classroom while 10% (n=3) indicated they spend 31-34 hours a week in the classroom. On average, the respondents spent a total of 5.55 hours preparing for class, followed by family obligations at 5.26 hours per week. Twelve of the respondents selected other and indicated on average they spend 5.16 hours on activities such as farming, volunteering, and studying for the Praxis certification exam. The teaching respondents spent over 56 hours on work related items from preparing for class, to FFA and work related activities, committees, and SAE visits with an additional 19 hours or more on non-work

related activities including family, housework, children's activities, religious activities, and health care.

The time reported being spent in the classroom varied slightly from Foster (2003) who found that females spend about 25 hours a week in the classroom while this research suggests they spend over 40 hours a week in the classroom. Foster (2003) identified a combined total hours worked a week was 69 hours while respondents in this study only reported spending 56 hours on all work related items.

The teaching respondents (n=30) indicated that personal reasons, ($\overline{X}$=3.73) family support, ($\overline{X}$= 3.27) and level of preparedness ($\overline{X}$=2.93) were the reasons respondents chose to teach. The least important factors weighing on teaching decisions were opportunity to enter graduate school ($\overline{X}$=1.87), credential process ($\overline{X}$=1.87), other ($\overline{X}$=1.75) and health related ($\overline{X}$=1.73). It is important to note that the reasons graduates chose to teach closely mirrored the reasons why graduates chose not to teach. In other words, personal factors were the greatest influence on female graduates transitioning to the classroom.

Finally, the respondents indicated the most satisfying part of teaching was the positive experiences and working relationships they had with their students ($\overline{X}$=4.50), other teachers at their school ($\overline{X}$= 4.14), community members ($\overline{X}$=4.10), and advisory committee members ($\overline{X}$=4.07). There was also strong agreement that the respondents enjoyed their teaching position with 80% (n=24) indicating they either agree or strongly agree with the statement. These results closely align with Foster (2013) in which over 80% of the females studied were satisfied with their teaching position. The respondents in this study were least satisfied with the relationships they had with the parents of students ($\overline{X}$=3.97) and administrators ($\overline{X}$=3.37). In regard to the respondents preparedness and satisfaction with

their University's assistance in obtaining a teaching position, 73% (n=22) either agreed or strongly agreed the assistance was beneficial. The respondents disagreed or strongly disagreed that gender had been a barrier to their career success (60%, n=18). Likewise, 65% (n=19) stated they disagreed or strongly disagreed that gender has been a barrier to their overall career enjoyment.

Objective 6: Describe perceived barrier, obstacles, and challenges faced by secondary female agricultural instructors.

Of the 30 teaching respondents, 46.67% (n=14) stated they have felt barriers or challenges due to their gender while 53.33% (n=16) reported they did not feel any challenges or barriers based on their gender. These results closely aligned with Foster (2003) who indicated that just over 60% of the respondents experienced a barrier or obstacle due to their gender. This would suggest that over a 10 year span, gender barriers could be decreasing since the respondents from this study only suggested that 46% of females faced some form of gender barriers.

Even though the gender barriers existed, it seldom prohibited respondents from entering the classroom. Respondent 39 felt some gender barriers and indicated that it was most challenging with male agricultural education instructors who stereotyped her as the "lady who teaches about flowers." She was actually told by some members in her graduating class that they would be better shop teachers because they are men and she is a woman. Respondent 44 was told in her first job application that the school would never hire another woman. Respondent 10 indicated that the administration doubts her in shop classes and does not believe that a young woman can teach those types of classes. Similarly, Respondent

15 indicated that she experiences challenges related to family and how it was challenging to be a nursing mom and told that she couldn't take her babies on overnight trips. She tells a story of her mom agreeing to pay to attend national FFA convention with her to care for her child while she was assisting students. The school told her no, so she cancelled the trip which led to some very upset parents and students. She also stated that being a mom is just hard with the extra hours of being a secondary agricultural instructor; it is difficult but possible with the right support. She concludes that this attitude needs to change if they want to keep working mothers in the profession. Each of these respondents did teach in the secondary classroom at some point in her career.

RECOMMENDATIONS

The following recommendations were made for future study based on the data collected within the study:

1. Further clarify employment status of female graduates that entered the teaching profession but are no longer teaching. Why did some female graduates begin in the teaching profession but leave after less than 10 years of teaching?
2. Further define what is being done to retain female agriculture teachers in the profession.
3. Compare responses of male and female graduates to determine if a difference exists between genders.
4. Determine the status of their employment, are they part-time or full-time and further clarify if you have taught but aren't currently teaching are you currently employed or not?

5. Identify additional information about extended contracts and compare their male counterparts to see if any gender bias existed.

This study focused on factors that influence female agricultural education graduates decisions to enter the field within their program of study. This information could be useful to the University of Idaho's department of Agricultural and Extension Education. Furthermore, other institutions that offer a bachelor's of science degree in Agricultural Education might find this research beneficial.

1. With the knowledge that there is a shortage of Agricultural Educators, what continued or different efforts could be implemented to increase enrollment into this program? The state and national Teach Ag! campaign was aiding in teacher recruitment efforts, but those efforts seem to be falling slightly short. Establishing female mentors earlier in a female's teaching career and encouraging more females to enter the profession by showing them that there are women who do it and are successful could be valuable.
2. Females were finding employment upon graduation but not always as a secondary agricultural instructor, however it is known that positions go unfilled each year. Creating better marketing and recruitment techniques that happen during and after the student teaching experience to assist those females into jobs could be beneficial.
3. The research shows that family obstacles and gender biases do exist. Should there be a course at the college level that focuses on balancing work and life and also focuses on gender biases for both males and females.

4. Mentors were mentioned on a few occasions. Formal mentoring programs were established in 2014. The 35 females who were currently teaching secondary agricultural education at the time of the study could provide insight to a first year teachers struggling with challenges they had not expected. This mentoring program should be maintained to assist in successful female graduate transition into the classroom.
5. Academic advisors within the Department of Agricultural and Extension Education should be able to advise and counsel students addressing perceived gender barriers to ensure they are better prepared for their career.
6. With one of the top reasons for why females chose not to enter a career in secondary agriculture being their level of preparedness an evaluation of the student teaching experience along with curriculum leading them to graduation should be analyzed.
7. The work\life balance was a perceived concern by many of the respondents. The stereotypical 40 hour work week is not the case for this profession since the research showed that the majority of the respondents spent 56 or more hours a week on work related activities. Addressing time management strategies could assist in teacher retention.
8. A workshop as part of the summer PTE conference could be valuable with an open discussion about females in secondary agricultural education. With the females reporting their male counterparts do not take them seriously how can better dialogue be created to make both genders aware of the biases they face.

CONCLUSION

According to the respondents of this study, the profile of a female agricultural education graduate from the University of Idaho was 33 years old, married, with children and held a bachelor's degree but also had a desire to increase her education. She took agricultural courses in high school and was involved with FFA. She was teaching or had taught secondary agriculture and started with a salary that was below $35,000. She taught for 5 years or less but while teaching she taught animal science, introduction to agriculture, and incorporated FFA throughout her courses. She spent over 56 hours in the classroom and on other work related items and an additional 19 hours outside of the classroom on non-work related items. Finally she faced challenges and barriers because of her gender mostly due to finding a work and life balance but she was very satisfied with her career.

The profile of a female graduate who did not enter the teaching profession shows that she is a woman over the age of 35, married, with children. She has a bachelor's degree but a desire to continue her education. She took agricultural courses in high school and was involved in FFA. She is employed in an agricultural field and her degree helped prepare her for her career choice. The factor that weighed the heavies on her decision to not teach was personal reasons and salary competitiveness. She is overall satisfied with her career choice and states that the reason she chose her profession was because the opportunity presented itself, it was better, and she took it.

The theory used for this research was constructivism. The researcher was able to identify in each objective the experiences women were facing. This closely aligned with the research conducted by others in the field and the reality that gender bias does exist and women are faced with choices and dilemma's when choosing a career upon graduation.

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APPENDIX A

INSTRUMENT

Participant Consent Form

The University of Idaho Institutional Review Board has certified this project as exempt.

The topic of this study is to determine what factors influence University of Idaho female graduates decisions regarding career entrance.

You will be asked to answer the following survey questions. The study should take approximately 15-20 minutes.

You will benefit from this project by helping us understand the true perceived reasons why females enter a career in secondary education along with any barriers or challenges they have faced along the process. You will also help us understand why females might choose career entrance into secondary agricultural education and their reasons why.

All information you provide will always be password protected and ONLY accessed by myself and my faculty sponsor (Dr. Allison Touchstone).

If you have any questions about the study or survey you can ask the investigator when the survey is complete or at a time you feel is appropriate.

Investigator:

Andrea C. Schumaker
University of Idaho
Dept. of Ag. Ed. & 4-H Youth Dev.
Moscow, ID 83844-0000
Ph. 208-885-6358

Faculty Sponsor:

Dr. Allison J.L. Touchstone
University of Idaho
Dept. of Ag. Ed. & 4-H Youth Dev.
Moscow, ID 83844-1234
Ph. 208-364-4543

During the course of this study, you may stop at any time with no penalty.

If you do stop your participation in the study, there will be no penalties associated with your withdrawal.

Thank you!

***1. This research study presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.**

I certify that I am at least 18 years of age and consent to this study by continuing with the survey.

- Yes
- No

***2. What is your age?**

- Under 25 years
- 25-30 years
- 31-35 years
- 36-40 years
- 41-45 years
- 46-50 years
- 51-55 years
- 56-60 years
- Over 61

***3. What is your current marital status?**

- Never Married (Single)
- Married
- Divorced
- Divorced and Remarried
- Widowed

***4. Do you have children?**

- Yes
- No

5. What are their ages?

	Child One	Child Two	Child Three	Child Four	Child Five	Child Six
under 1 year						
1-3 years						
4-6 years						
7-9 years						
10-12 years						
13-15 years						
16-18 years						
over 18						

***6. What is the highest degree you hold?**

- Bachelors Degree
- Masters Degree
- Education Specialist
- Ph.D./Ed.D

***7. What was your major?**

- Agricultural Education
- Agricultural Science, Communication, and Leadership
- Other

If selected other (please specify)

***8. Do you have any interest in increasing your level of education?**

- Yes
- No

***9. Did you take agricultural classes in high school?**

- Yes
- No

***10. Why didn't you take agricultural courses in high school (please check all that apply)?**

- ☐ Classes not available
- ☐ Conflicted with Schedule
- ☐ Females not allowed to enroll in agricultural courses
- ☐ Other

If selected other (please specify)

*11. Where you a member of FFA in high school?

- Yes
- No

***12. Why did you not participate in FFA in high school (please check all that apply)?**

- [ ] FFA was not offered at my high school
- [ ] Females were not allowed to be in FFA
- [ ] FFA conflicted with my other commitments in high school
- [ ] Other

If selected other (please specify)

*13. Are you currently teaching secondary agriculture?

- Yes
- No

***14. Have you ever taught secondary agriculture?**

- Yes
- No

***15. What is your current level of secondary teaching experience (in years)?**

- 1-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- Over 20 years

***16. What is/was your beginning salary range?**

- Below $24,999
- $25-$29,999
- $30-$34,999
- $35-$39,999
- $40-44,999
- $45-$49,999
- over $50,000

***17. What is/was your current/ending salary range?**

- Below $24,999
- $25-$29,999
- $30-$34,999
- $35-$39,999
- $40-44,999
- $45-$49,999
- over $50,000

***18. Please indicate the subjects you have taught? (Please check all that apply).**

- ☐ Animal Science
- ☐ Aquaculture
- ☐ Companion Animals
- ☐ FFA
- ☐ Horticulture
- ☐ Introduction to Agriculture
- ☐ Leadership
- ☐ Plant Science
- ☐ Agriculture Business
- ☐ Agriculture Mechanics
- ☐ Equine Science
- ☐ Food Science
- ☐ Hydroponics
- ☐ Marketing
- ☐ Soil Science
- ☐ Welding
- ☐ Fabrication
- ☐ Other

If selected other (please specify)

***19. How many hours a week do you spend in the classroom?**

- ○ 8-10 hours
- ○ 11-15 hours
- ○ 16-20 hours
- ○ 21-25 hours
- ○ 26-30 hours
- ○ 31-34 hours
- ○ 40 or more hours

***20. How many hours a week do you spend on related activities?**

	0 Hours	1-2 Hours	3-4 Hours	5-6 Hours	7-8 Hours	9 or more Hours
Preparing for Class	○	○	○	○	○	○
FFA Activities	○	○	○	○	○	○
SAE Visits	○	○	○	○	○	○
Committee Meetings	○	○	○	○	○	○
Other Work-Related activities	○	○	○	○	○	○
Children's School	○	○	○	○	○	○
Religious	○	○	○	○	○	○
Health Care	○	○	○	○	○	○
Family Obligation	○	○	○	○	○	○
Housework	○	○	○	○	○	○
Other	○	○	○	○	○	○

If selected other (please specify)

***21. Please indicate the level each item weighed on your decision to teach secondary agriculture:**

	No Weight On Decision	Some Weight on Decision	Neutral	Somewhat Heavy on Decision	Extremely Heavy on Decision
Administrative Support	○	○	○	○	○
Community Support	○	○	○	○	○
Commute Length (Place Bound)	○	○	○	○	○
Discipline Problems	○	○	○	○	○
Family Support	○	○	○	○	○
Health Related	○	○	○	○	○
Level of Preparedness	○	○	○	○	○
Out of Class Expectations	○	○	○	○	○
Personal Reasons	○	○	○	○	○
Professional Development	○	○	○	○	○
Credential Process	○	○	○	○	○
Rigor of Teaching	○	○	○	○	○
Salary not reflecting effort	○	○	○	○	○
Salary Competitiveness	○	○	○	○	○
Support from Colleagues	○	○	○	○	○
Time and/or Resources	○	○	○	○	○
Opportunity to enter Graduate School	○	○	○	○	○
Other	○	○	○	○	○

Other (identify other reasons for career decision)

22. Please indicate your level of satisfaction with your teaching experience. Please use the following scale:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I enjoy my teaching position	○	○	○	○	○
Gender has been a barrier to my career success	○	○	○	○	○
Gender has been a barrier to my career enjoyment	○	○	○	○	○
I was asked discriminating questions during first job interview	○	○	○	○	○
I have had positive experiences and working relationships with my administration	○	○	○	○	○
I have had positive experiences and working relationships with my students	○	○	○	○	○
I have had positive experiences and working relationships with parents	○	○	○	○	○
I have had positive experiences and working relationships with other teachers at my school	○	○	○	○	○
I have had positive experiences and working relationships with community members	○	○	○	○	○
I have had positive experiences and working relationships with advisory committee members	○	○	○	○	○
I am satisfied with my University's assistance in helping prepare me to attain a teaching position	○	○	○	○	○

***23. Do you feel you have experienced any barriers or challenges as a secondary teacher due to your gender?**

- Yes
- No

24. Please explain the barriers or challenges you faced.

***25. Are you currently employed?**

- Yes
- No

*26. What is your job title?

*27. How did your degree prepare you for this career?

*28. Financially, how does this career path pay compared to secondary teaching?

***29. Did you interview for secondary teaching positions?**

- Yes
- No

*30. Were you offered a teaching contract?

- Yes
- No

***31. What was the length of the extended contract?**

- There was no extended contract
- 5 days
- 10 days
- 15 days
- 20 days
- 25 days
- 30 days
- 35 days
- 40 days

***32. Please indicate the level each item weighed on your decision to not teach secondary agriculture:**

	No Weight On Decision	Some Weight on Decision	Neutral	Somewhat Heavy on Decision	Extremely Heavy on Decision
Administrative Support					
Community Support					
Commute Length (Place Bound)					
Discipline Problems					
Family Support					
Health Related					
Level of Preparedness					
Out of Class Expectations					
Personal Reasons					
Professional Development					
Credential Process					
Rigor of Teaching					
Salary not reflecting effort					
Salary Competitiveness					
Support from Colleagues					
Time and/or Resources					
Opportunity to enter Graduate School					
Other					

Other (identify other reasons for career decision)

***33. Please indicate your level of satisfaction with your decision to not teach secondary agriculture. Please use the following scale:**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I felt gender was a factor when applying for teaching positions and this was discouraging.	○	○	○	○	○
My student teaching experience was not what I expected.	○	○	○	○	○
I did not feel prepared to enter a career in teaching.	○	○	○	○	○
I was asked discriminating questions during a teaching job interview.	○	○	○	○	○
There was too much emphasis on academic subjects instead of secondary agriculture subjects.	○	○	○	○	○
I felt there was a lack of support from the State Department of Education (Career/Professional Technical).	○	○	○	○	○
I am satisfied with the University of Idaho's assistance in helping prepare me to attain a teaching position.	○	○	○	○	○
A better opportunity presented itself and I decided to take it.	○	○	○	○	○

*34. What do you perceive to be the greatest challenge faced by female agricultural education graduates?

Thank You

Thank you for taking the time to complete this survey. Your input is very valuable to us. Please select done to submit the survey.

Thanks Again!

APPENDIX B

PARTICIPANT NOTIFICATION E-MAIL AND FOLLOW UP E-MAILS

Participation Notification

April 24, 2014

To: [Email]

From: "aschumaker@vandals.uidaho.edu via surveymonkey.com" <member@surveymonkey.com>

Subject: Invitation to Participate in Female Agricultural Education Graduate Study

Body: Good Afternoon [FirstName],

We are conducting a survey, and your response would be appreciated. The information regarding the survey is described on the cover page for the online survey. The survey is unique to your email address, please do NOT forward it.

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

You will benefit from this project by helping us understand the true perceived reasons why females enter a career in secondary education along with any barriers or challenges they have faced through the process. You will also help us understand why females might choose career entrance into secondary agricultural education and their reasons why.

Thanks for your participation!

If you have any questions or concerns, please do not hesitate to contact me:

Andrea C. Schumaker
University of Idaho
Dept. of Ag. Ed. & 4H Youth Dev.
aschumaker@vandals.uidaho.edu

Faculty Sponsor:
Dr. Allison J.L. Touchstone
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Dept. of Ag. Ed. & 4H Youth Dev.
atouchstone@uidaho.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

Follow up E-mail 1

May 13, 2014

To: [Email]
From: "atouchstone@uidaho.edu via surveymonkey.com" <member@surveymonkey.com>
Subject: Reminder: Take My Survey
Body: Good Afternoon [FirstName],

A few weeks ago you received an e-mail regarding a survey about female agricultural education graduates. Your response would be greatly appreciated.

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thanks for your participation!

If you have any questions or concerns, please do not hesitate to contact me:

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atouchstone@uidaho.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

Follow up E-mail 2

June 24, 2014

To: [Email]

From: "atouchstone@uidaho.edu via surveymonkey.com" <member@surveymonkey.com>

Subject: Final Reminder: Please Take My Survey

Body: We are conducting a survey, and your response would be appreciated.

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thanks for your participation!

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

Follow up E-mail 3

July 28, 2014

To: [Email]

From: "atouchstone@uidaho.edu via surveymonkey.com" <member@surveymonkey.com>

Subject: Invitation to Participate in Graduate Survey

Body: We are conducting a survey, and your response would be appreciated.

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thanks for your participation!

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

Final Request E-mail

July 31, 2014

To: [Email]
From: "aschumaker@vandals.uidaho.edu via surveymonkey.com" <member@surveymonkey.com>
Subject: Final Request for Assistance with Study
Body: Good Afternoon [FirstName],

We are conducting a survey, and your response would be appreciated. The information regarding the survey is described on the cover page for the online survey. The survey is unique to your email address, please do NOT forward it.

This will be the final request for your assistance.

Here is a link to the survey:
https://www.surveymonkey.com/s.aspx

You will benefit from this project by helping us understand the true perceived reasons why females enter a career in secondary education along with any barriers or challenges they have faced through the process. You will also help us understand why females might choose career entrance into secondary agricultural education and their reasons why.

Thanks for your participation!

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Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
https://www.surveymonkey.com/optout.aspx

APPENDIX C

INSTITUTIONAL REVIEW BOARD SUBMISSION AND APPROVAL

Form 2: Non-Exempt Application Materials

University of Idaho procedures require that the Institutional Review Board (IRB) review and approve of projects involving humans. Official approval from the IRB must be given **before** the research can begin.

Forms should be emailed as attachments to irb@uidaho.edu in **Microsoft Word format**.

If you are a student, you should be listed as the student investigator and your faculty sponsor as the PI. You must submit your materials to your UI faculty sponsor/PI. After their review and approval, they will FORWARD your materials to the IRB for review.

If you are not a full-time faculty member or employee at the UI, you must contact a departmental faculty member, administrator or department chair. This person will become your faculty sponsor.

Once you have submitted the completed application, the Institutional Review Board will approve it. **You can begin the research ONLY AFTER receiving WRITTEN approval from the committee.**

Please allow at least **six weeks excluding holidays** for the initial review and approval process. [Note: The approval process takes longer when corrections are requested by committee members or when we have a large number of applications].

Note: All researchers participating in human subject's research are required to take the online course through the National Institutes of Health http://phrp.nihtraining.com/users/login.php

Copies of certificates of completion will be required before projects will be approved.

Please include your UI campus mail code address (83844 - _ _ _ _) on the summary form inside, and an **address** below.

Andrea Schumaker

Department of Agricultural Education and 4-H Youth Development

322 E Front Street, Suite 440

Boise, Idaho 83702

Investigator e-mail: andreaschumaker@cwidaho.cc

Faculty Sponsor e-mail if applicable atouchstone@uidaho.edu

Form 2: University of Idaho Human Subject Review – Non-exempt Projects

This project qualifies for "Non-Exempt" status. Please complete the following application. In addition, the following information must be included:

1. An electronic copy of certification in PDF or Microsoft Word format that the online course sponsored by
the National Institutes of Health has been completed by everyone listed on the project.
NIH website: http://phrp.nihtraining.com/users/login.php

2. If applicable, an electronic copy of an Informed Consent Form that includes all components provided at: http://www.uidaho.edu/ora/committees/irb/irbforms

3. If applicable, a copy of the survey, questions intended to be asked, or if conducting qualitative research,
initial entry questions and items where the investigator might probe for additional information.

Principal Investigator: **Dr. Allison Touchstone** Academic Title **Senior Instructor-University of Idaho**

Student Investigator **Andrea Schumaker**

Department/Division: **Agricultural Education and 4-H Youth Development**

Campus Zip Code **2040** Phone **364-4543**

Project Title: **Factors Influencing Female Idaho Agricultural Education Graduates Decisions Regarding Career Entrance**

Proposal Number:

Previous IRB protocol Number:

Anticipated Start Date: **January 1, 2014**

Anticipated End Date **May 10, 2014**

Faculty Sponsor (if you are not principal investigator)

_____

Is the project seeking funds? (Answer using a bold **"X"**) YES ____ NO **X**

If yes,
Granting Agency: **N/A**

Grant Title: **N/A**

Principal Investigator on Grant: **N/A**

If a continuation, date of previous approval: **N/A**

I. SUBJECTS/PARTICIPANTS

A. Approximate number **350**

B. Age Range **22 and older**

(Note: Participants less than age 18 have additional requirements)

C. How will participants be selected or recruited?

Participants will be identified by the University of Idaho College of Agricultural and Life Sciences Agricultural Education department and contact information will be gathered from the department and University of Idaho Alumni office.

D. Are there participants who will be excluded? Why?

The research will be limited to females who graduated from the University of Idaho with a degree in Agricultural Education. Therefore participants who did not graduate from the University of Idaho and are male will be excluded. They are excluded as the study focus is on females and the factors that lead to their decisions to teach or not teach. Additionally, potential participants may opt out if they choose.

E. Will participants be paid? If yes, how much, when, and how? Must they complete the project to be paid?

Participating in this research is strictly voluntary. No payment will be given to any participant.

F. Are any of the participants not competent to give consent (e.g., minors, prisoners, institutionalized)? If yes, how will consent be obtained? From whom? Are there procedures for gaining assent (if appropriate)?

All participants are competent to give consent.

If appropriate, how will "assent" be obtained? (Participants themselves, even though deemed not competent, must agree to the research.)

All participants are competent to give consent.

G. Will this study be conducted in an Educational (School / Pre K - 12) setting and involve children or teachers actively teaching within the classroom as part of the study? If yes, **ATTACH** documentation from a Teacher and School Principal, Superintendent, or other administrator indicating approval. Also, **ATTACH** appropriate material regarding FERPA regulations (if applicable).

Some of the respondents could currently be teaching high school agriculture. However, the participation in this study is not contingent on their current employment nor is the study regarding their current school or students.

II. DESCRIPTION OF PROJECT. Type answers in the spaces provided. Although you may cut and paste materials from other documents, **Do Not** refer to attached grants, papers, dissertation proposals, etc. Be clear, brief and specific. **The IRB application must stand on its own.**

A. Describe the Purpose of the Research.

The purpose of the study is to describe the reasons why female graduates do or do not enter the teaching profession immediately following graduation with their degree in agricultural education from the University of Idaho.

B. Describe the Research Design (Survey, Naturalistic Observation. 2 by 3 Factorial Design, Qualitative Design, etc).

The methodology used will be a mixed method approach. A case study will provide some insight. This approach as defined by Creswell (2013) as, "a qualitative approach in which the investigator explores a real-life, contemporary bounded system or multiple bounded systems over time, through detailed, in depth data collection involving multiple sources of information (e.g. observations, interviews, audiovisual materials, documents and reports), and reports a case description and case themes (page 97). A quantitative approach will also be used. Leedy and Ormond (2010) define this approach as, "measure variables in some way, perhaps by using commonly accepted measures of the physical world or carefully designed measures of psychological characteristics or behaviors (e.g. test, questionnaires, rating scales" (page 94). The mixed method approach allowed for surveys and questionnaires to be sent out and analyzed and asks direct questions for measureable data and along with the ability to provide direct quotes within the findings to provide more in depth knowledge and understanding.

C. Describe the Procedures (What will the Participants do).

The participants will be solicited by e-mail notifying them of the study and inviting them to participate. The questionnaire will then loaded into a Survey Monkey. Conducting a survey online has several advantages as it reaches a larger audience and prevented the costs of mailing materials. As Leedy and Ormond state, "Survey Monkey provides a website with numerous templates that make questionnaire design easy and enable the researcher to present a variety of item types (e.g. multiple-choice, rating scales). They also include a feature for communication with the preselected sample of participates through e-mail or invitations, as well as features through which the researcher can tabulate, statistically analyze, and download results (page 203).

D. If any deception (withholding of complete information) is required for the validity of this activity, explain why this is necessary and **attach** a debriefing statement.

N/A

III. ASSESSMENT OF RISKS AND BENEFITS.

A. Describe the nature of any potential risks. These include stress, social, legal, discomfort, invasion of privacy, embarrassment, or side effects.

No Risks have been identified to the participants who participate in this study.

B. Describe how each of the risks in part A will be minimized. Be detailed and complete.

N/A

C. In the event that any of these potential risks occur, how will they be handled (e.g., compensation, counseling, etc.)?

N/A

D. Will this study interfere with any subject's normal routine (e.g., school attendance, medical treatment, etc.)?

The disruption to normal routine will be minimal with the survey taking approximately 15-20 minutes to complete.

E. Describe the expected benefits to society and to the individual subjects.

The mixed method case study approach will aid the University of Idaho, specifically the College of Agricultural and Life Sciences and the department of Agricultural Education better understanding the determining factors for female teachers in pursuing a career as a secondary agricultural instructor.

F. Will blood be taken? (Answer using a Bold **"X")** YES____ NO **X**

Who will take the blood? **N/A**

How often? ? **N/A** How much? ? **N/A**
Describe the procedure for drawing the blood:
N/A

IV. CONFIDENTIALITY OF DATA

Using a bold "X" answer the following questions

A. Will data be anonymous (i.e., even the researcher will not be able to link the identity of the subjects/participants with responses)?

YES (Go to Part C)

NO __**X**___ (If NO, complete item IV-B.

B. Will data be confidential? YES__**X**___NO_____

If **YES,**

Will the data be coded to a master list? YES__ **X** __ NO____

Will the list be kept separate from the data? YES___ **X** _ NO____

If **NO,**

Who else will have access to the data? **The student researcher and faculty advisor will be the only individuals with access to the data.**

Why? **The student researcher and faculty advisor will be using the data linkages to identify the participants and their response status. Once the study is complete, linkages will be broken and the data destroyed**

How will confidentiality be maximized? **The data and linkages will be stored on a secure computer to which only the student researcher and the faculty advisor will have access**

C. How will the data will be stored? Locked laboratory___ Locked file cabinet __ Restricted Computer **X**__ Other (describe): **Password protected Excel Spreadsheets and Survey Monkey is password protected**

D. How will the data eventually be deleted? If not deleted, how will linkage to identities be broken?

Data will be deleted from Survey Monkey and all documents related to data will be shredded

V. ADDITIONAL IMPORTANT CONSIDERATIONS

Using a bold "X" answer the following questions

A. Will any investigational NEW drug (IND) be used? YES_____ NO **X**_____

B. Will any other drugs be used? YES_____ NO **X**____

If **YES** to A or B, list for each drug:

1) the name of the drug;
2) the source of the drug;
3) the dosage;
4) any side effects or toxicity;
5) how it will be administered; and

6) by whom it will be administered.

ATTACH PDR OR EQUIVALENT MATERIAL IN AN APPENDIX TO THIS PROPOSAL

C. Will a new investigative device (IDE) be used? YES_____ NO **X**___

IF **YES**, has the Idaho Research Foundation been notified? YES_____ NO_____

D. Will ethyl alcohol be ingested by the participants ? YES_____ NO **X**_____

If **YES**, fill out the Alcohol Human Subjects Form found on the IRB website Refer to the guidelines for administration of ethyl alcohol in human experimentation available from the UI Research Office.

E. Will audio-visual tapes, audiotapes or photographs be taken? YES NO **X**___

If **YES**:

Where will the tapes be stored?

When will this material be destroyed?

F. Will a written consent form be obtained? YES **_X**___ NO_____

If **YES**: please attach consent form (refer to the Components of a Consent Form included in packet). **This will be a component of the Survey Monkey.**

If **NO**: how will consent be obtained?

Why is this method being used?

VI. INTERNATIONAL PROJECTS

Using a bold "X" answer the following question

A. Will the project be conducted outside the United States YES _____ NO **X**__

If **YES**: Has an IRB been contacted in the country where the study will be conducted? YES ____ NO ____

If yes, provide documentation indicating approval.

If no, provide an explanation why an IRB has not been contacted and/or explain how you will comply with the Belmont Report, Declaration of Helsinki or similar document.

VII: OTHER AGENCIES

A. Some projects require additional approvals beyond IRB/IRB approval (e.g., Office of Management and Budget for surveys in federal parks, Native American Tribal Councils, U.S. Food and Drug Administration, etc). List additional agencies

where project approval has been obtained. Attach appropriate documentation. If materials are under review at these agencies indicate the review is in progress.

1. _____

2. _____

3. _____

VIII: Sponsored Programs

If this project seeking funding YES _____ NO **X**

Has Sponsored Programs been notified? **N/A**

IX: ONLINE COURSE COMPLETION

List the names of all investigators and indicate the date(s) of completion for all investigators taking the

Protection of Human Subjects from the National Institutes of Health on line class.
http://cme.cancer.gov/clinicaltrials/learning/humanparticipant-protections.asp

FACULTY SPONSOR NOTE: A copy of the completion certificate or other verification must be included for ALL investigators including laboratory assistants, observation observers, etc.

Name of Investigator	Date of Course Completion	Certificate Number of Online Course
Andrea Schumaker	06/28/2011	709212
Allison Touchstone	09/11/2008	90570

If this project will be submitted or will receive external funding, print out the last page sign on the following signature line using a pen, provide the date of submission, and mail it to:

Institutional Review Board
University of Idaho
POB 443010
Moscow, Idaho 83844-3010

Currently, an electronic copy or electronic signature is not enough to comply with the Federal regulations/requirements for <u>funded</u> research

Institutional Review Board Approval

To: Allison Touchstone

From: Traci Craig, Ph.D.,
Chair, University of Idaho Institutional Review Board
University Research Office
Moscow, ID 83844-3010

Date: 3/20/2014 10:37:01 AM

Title: Factors Influencing Female Idaho Agricultural Education Graduates Decisions Regarding Career Entrance

Project: 14-113

Certified: Certified as exempt under category 2 at 45 CFR 46.101(b)(2).

On behalf of the Institutional Review Board at the University of Idaho, I am pleased to inform you that the protocol for the above-named research project has been certified as exempt under category 2 at 45 CFR 46.101(b)(2).

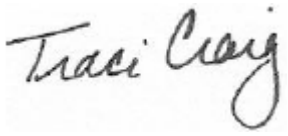
This study may be conducted according to the protocol described in the Application without further review by the IRB. As specific instruments are developed, modify the protocol and upload the instruments in the portal. Every effort should be made to ensure that the project is conducted in a manner consistent with the three fundamental principles identified in the Belmont Report: respect for persons; beneficence; and justice.

It is important to note that certification of exemption is NOT approval by the IRB. Do not include the statement that the UI IRB has reviewed and approved the study for human subject participation. Remove all statements of IRB Approval and IRB contact information from study materials that will be disseminated to participants. Instead please indicate, 'The University of Idaho Institutional Review Board has Certified this project as Exempt.'

Certification of exemption is not to be construed as authorization to recruit participants or conduct research in schools or other institutions, including on Native Reserved lands or within Native Institutions, which have their own policies that require approvals before Human Subjects Research Projects can begin. This authorization must be obtained from the appropriate Tribal Government (or equivalent) and/or Institutional Administration. This may include independent review by a tribal or institutional IRB or equivalent. It is the investigator's responsibility to obtain all such necessary approvals and provide copies of these approvals to ORA, in order to allow the IRB to maintain current records.

As Principal Investigator, you are responsible for ensuring compliance with all applicable FERPA regulations, University of Idaho policies, state and federal regulations.

This certification is valid only for the study protocol as it was submitted to the ORA. Studies certified as Exempt are not subject to continuing review (this Certification does not expire). If any changes are made to the study protocol, you must submit the changes to the ORA for determination that the study remains Exempt before implementing the changes. Should there be significant changes in the protocol for this project, it will be necessary for you to submit an amendment to this protocol for review by the Committee using the Portal. If you have any additional questions about this process, please contact me through the portal's messaging system by clicking the 'Reply' button at either the top or bottom of this message.



Traci Craig, Ph.D.

APPENDIX D

HUMAN SUBJECTS CERTIFICATE

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Andrea Schumaker** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 06/28/2011

Certification Number: 709212

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Allison Touchstone** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 09/11/2008

Certification Number: 90570