

FACTORS AFFECTING FEMALE SECONDARY AGRICULTURAL
EDUCATOR JOB SATISFACTION IN ARIZONA

A Record of Study

by

MIRAJ WALLACE

Submitted to the Graduate and Professional Studies School of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

Chair of Committee,	John Elliot
Co-Chair of Committee,	Courtney Meyers
Committee Members,	Chanda Elbert
	Scott Burris
Head of Department,	Mathew Baker

August 2021

Major Subject: Agricultural Education

Copyright 2021 Miraj Wallace

ABSTRACT

The purpose of this applied action research was to identify factors that contribute both to Arizona female secondary agricultural educator job satisfaction and to their decisions to remain in the profession. The research questions used to direct this study were: 1. Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona? 2. What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona? 3. Which factors generate the greatest and least levels of female agricultural educator satisfaction with the AATA Mentoring Program? 4. Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona? This mixed methods study was comprised of two parts: qualitative in-depth interviews with 12 female agricultural educators in Arizona and a quantitative questionnaire disseminated to all female agricultural educators in Arizona ($n = 30$). The interview findings revealed that external, motivator, and hygiene factors play a role in overall job satisfaction with Classroom Instruction, FFA, and SAE job responsibilities, recognition of support structures (people and practices), and AATA New Teacher Mentoring Program experience. The results of the questionnaire revealed which Classroom Instruction, FFA, and SAE job responsibilities brought female agricultural educators the greatest and least amounts of satisfaction. AATA New Teacher Mentoring Program mentor and mentee experience factors were also ranked by level of satisfaction. Lastly, descriptive statistics calculated on the demographic data (degree type, certification type, years of experience, race, marital status, and children) yielded information about the influence of those demographic factors on Classroom Instruction, FFA, and SAE job responsibility satisfaction. Both the findings and results indicate

that professional relationships with others in the Arizona agricultural education community play a positive role in female agricultural educator retention. The information acquired through this research may aid in developing a framework for an improvement plan to create a teacher support system within the AATA. There are also implications to use the findings in the University of Arizona's agricultural education teacher preparation program.

Keywords: female agricultural educator, job satisfaction, retention, mentoring, self-efficacy, work-life balance

DEDICATION

This manuscript is dedicated to Mykah, Noah, and Tirzah, whose love and enthusiasm were a source of strength and a guiding light. Thank you!

ACKNOWLEDGEMENTS

I would not be where I am today without my mom, Derosé Yuhuru-Ohana. Madre, thank you for instilling in me the importance of education from a young age. You were the one who first told me about this program and encouraged me to apply for it. I'm so thankful you kept pushing me to take this opportunity. I hope that I can pay it forward one day. Thank you for being my listening ear, for commiserating with me when I needed it, and telling me to buckle down and just keep going one step at a time to reach my goals. You are the best!!!

Jasmine, thank you for always being my sounding board. When things got tough, I always knew I could call you to share what was on my heart. I love you so much and I'm so proud of you for everything that you're working towards! I'll always be your Raji. And David, thank you as well for always encouraging me to prioritize myself. I have learned there is power in saying "no" and putting my needs first sometimes.

Joshua, I literally physically would not be sitting here typing this were it not for you getting me this laptop. I know I'm a laggard when it comes to technology, but I'm so thankful you just went ahead and got it for me. It has turned out to be my best buddy over the past four years. Thank you also for being willing to solve any technology issues I had, even if it was late at night. Love you, bro! Michelle, thank you for keeping Josh in line and for being part of my support network. I have valued your consistent words of encouragement throughout this process.

Maya, where to start? You have been my co-pilot and one of my biggest cheerleaders. You may be younger, but I really look up to you and hope to be like you one day. Your zest for life and your thirst for knowledge are inspiring! Thank you for helping me get through this "two-year" program. I couldn't have done it without you!!!

Shorty, thank you for being the quiet calm to my turbulent seas. You have always been a consistent support, and for that I am eternally grateful! Thank you for all the extra meals you made and the effort you took to make it so that school was all I had to worry about. You are a phenomenal human being!

Mykah, Noah, and Tirzah, thank you for being understanding that I couldn't always be there the way I wanted to over the past four years. You never made me feel less than or held it against me. Mykah, thank you for all the encouraging cakes (and numerous other delicious goodies) you made when I was feeling stressed. Those messages lifted me up. Noah, thank you for being a voice of reason. Despite your youth, I can always count on you to give me sage advice. And Tirzah, thank you for being pure joy and delight! Your smile makes my day!

Nana and Grandfather, I am so thankful you're both alive to see this day! You have provided our family with a firm foundation from which to grow and blossom. My success is a testament to your love and support.

Aunt Lettie, you've pulled out all the stops to help me over the past four years. You never said no and always made me feel special and important. Thank you for your enthusiasm and creativity. You've been a real lifesaver!

To all my other family and friends, including my students at Seligman Unified School District # 40, thank you for your support of my educational endeavors! I hope I've made you proud!!!

Dr. Knight, thank you for believing in me before I even knew to believe in myself. I wouldn't be on the path I am today without your encouragement and support. I hope to be able to continue your legacy of inspiring others to become agricultural educators.

Many thanks to the members of my committee, Dr. John Elliot, Dr. Courtney Meyers,

Dr. Chanda Elbert, and Dr. Scott Burris. I could not have made it this far without your steadfast guidance and your belief that I could accomplish more than I thought possible. Thank you for looking for learning opportunities for me outside the realm of this dissertation. I feel like I am a more well-rounded agricultural educator because of these experiences. Thank you also for your accessibility. In times of uncertainty, I always knew that you were just one phone call or email away. You are more than just mentors, you have become my family.

Thanks also go out to my fellow cohort members: Michaelle Coker, Clarissa Saenz, Kellie Seals, Jenny Nuccio, Craig Rose, Adele Junfin, Andy Wilson, and Brian Flanagan. We started out as innocent strangers, but will now be friends for life. Thank you for lifting me up when I felt down, encouraging me when I felt weak, and helping me understand concepts that I felt were impossible. You are a diverse group of individuals, and I feel blessed to have you in my life. Wherever your journeys take you, know that I am always rooting for your happiness and success. Cohort 8 Strong!!!

Lastly, I would be remiss in not thanking God for blessing me with this opportunity. Even though there's been a lot on my plate, you've never given me more than I could handle. I've tried to keep the promise I made to you on that first plane ride home from Lubbock. Please continue to help me use the knowledge and skills I've gained to make the world a better place.

Let my teaching fall like rain
And my words descend like dew,
Like showers on new grass,
Like abundant rain on tender plants.

Deuteronomy 32:2

CONTRIBUTORS AND FUNDING SOURCES

Contributors

This research was supervised by a record of study committee consisting of individuals from both Texas A&M University and Texas Tech University. From Texas A&M University, this research was guided by committee chair, Dr. John Elliot, and committee member, Dr. Chanda Elbert. From Texas Tech University, co-chair Dr. Courtney Meyers and committee member Dr. Scott Burris assisted with the completion of this study. All other work was completed by the student independently.

Funding Sources

No funding was received to complete this research.

NOMENCLATURE

CDE	Career Development Event
SAE	Supervised Agricultural Experience
AATA	Arizona Agriculture Teachers Association
EF	External Factors
SCG	Social Construction of Gender
WLB	Work-Life Balance
GB	Gender Bias
SE	Self-Efficacy
VTP	Vulnerable Teacher Population
BNT	Burnout
CL	Commitment Level
SI	Social Integration
JS	Job Satisfaction
MF	Motivator Factors
ADV	Advancement
ACH	Achievement
REC	Recognition
RES	Responsibility
JD	Job Dissatisfaction
HF	Hygiene Factors
WC	Working Conditions
PR	Professional Relationships

SB Salary and Benefits

MS Management Style

TABLE OF CONTENTS

	Page
ABSTRACT.....	ii
DEDICATION.....	iv
ACKNOWLEDGEMENTS.....	v
CONTRIBUTORS AND FUNDING SOURCES	viii
NOMENCLATURE	ix
TABLE OF CONTENTS.....	xi
LIST OF FIGURES	xv
LIST OF TABLES.....	xvi
CHAPTER I INTRODUCTION	1
Background and Setting.....	1
Problem Statement.....	3
Purpose of the Study.....	5
Research Questions.....	6
Assumptions.....	6
Implications	7
Applications	8
Limitations	8
Definition of Terms.....	10
Summary	11
CHAPTER II REVIEW OF LITERATURE	13
Purpose of the Study.....	13
Research Questions.....	13
Conceptual Framework.....	13
Gender-Specific Themes.....	14
The Social Construction of Gender.....	14
Work-Life Balance.....	15
Gender Bias.....	17
Gender-Neutral Themes.....	18
Bandura’s Theory of Self-Efficacy	18
Job Satisfaction/Dissatisfaction	19
Vulnerable Teacher Populations.....	21

Mentoring.....	23
Burnout	25
Commitment	25
Social Integration.....	26
Conceptual Model.....	27
Summary	31
CHAPTER III METHODOLOGY	32
Purpose of the Study.....	32
Research Questions.....	32
Operational Framework	33
Research Design.....	34
Phase One	35
Variables of Interest.....	35
Sample	35
Procedures.....	40
Trustworthiness.....	41
Instrumentation	41
Data Collection	42
Saturation	43
Data Analysis	44
Phase Two	46
Variables of Interest.....	46
Population	46
Procedures.....	48
Validity	48
Reliability.....	49
Pilot Test	49
Instrumentation	50
Data Collection	51
Response Rate.....	53
Data Analysis	53
Research Goals.....	54
Ethical Considerations	54
Institutional Framework.....	55
Research Budget	55
Generalizations	56
Summary	56
CHAPTER IV FINDINGS AND RESULTS.....	57
Purpose of the Study.....	57
Research Questions.....	57
Phase One	58
Research Question One: Which job responsibilities generate the greatest and least	

levels of job satisfaction in female secondary agricultural educators in Arizona?	58
Research Question Two: What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?	92
Research Question Three: Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?	114
Phase Two	128
Research Question One: Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?	128
Research Question Three: Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?	135
Research Question Four: Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?	139
Degree Type	139
Certification Type	150
Years of Experience	161
Race	172
Marital Status	182
Children	193
Summary	204
CHAPTER V CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS	206
Purpose of the Study	206
Research Questions	206
Summary of Findings and Results	207
Research Question One: Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?	207
Classroom Instruction Job Responsibilities	207
FFA Job Responsibilities	208
SAE Job Responsibilities	208
Research question Two: What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?	209
Research Question Three: Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?	210
Research Question Four: Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?	212
Conclusions and Implications	217
Conclusions: Research Question One	217
Implications: Research Question One	218
Conclusions: Research Question Two	219
Implications: Research Question Two	220

Conclusions: Research Question Three	220
Implications: Research Question Three	221
Conclusions: Research Question Four	222
Areas of Greatest Job Responsibility Satisfaction	222
Areas of Least Job Responsibility Satisfaction	223
Implications: Research Question Four	224
Recommendations	224
Recommendations for Research	224
Recommendations for Practice	226
 REFERENCES	 230
 APPENDIX A: IRB APPROVAL LETTERS	 244
 APPENDIX B: INTERVIEW PARTICIPANT CONTACT EMAIL	 247
 APPENDIX C: INTERVIEW PARTICIPANT INFORMED CONSENT FORM	 248
 APPENDIX D: INTERVIEW GUIDE	 251
 APPENDIX E: INSTRUMENT	 252
 APPENDIX F: PILOT TEST EMAIL	 281
 APPENDIX G: QUESTIONNAIRE PRE-NOTICE EMAIL	 282
 APPENDIX H: COVER LETTER EMAIL	 283
 APPENDIX I: INITIAL CONTACT EMAIL	 284
 APPENDIX J: FIRST REMINDER EMAIL	 285
 APPENDIX K: SECOND REMINDER EMAIL	 286
 APPENDIX L: FINAL REMINDER EMAIL	 287
 APPENDIX M: LATE RESPONDER EMAIL	 288

LIST OF FIGURES

FIGURE		Page
1	Wallace Model of Factors Affecting Female Secondary Agricultural Educator Job Satisfaction.....	28
2	Research Operational Framework.....	34

LIST OF TABLES

TABLE	Page
1	Arizona Agricultural Educator Demographics 3
2	Arizona Agricultural Educator Average Age and Teaching Experience..... 5
3	Interview Coding Scheme..... 30
4	Interview Participant Coding 36
5	Interview Participant Demographics..... 39
6	Qualitative Data Collection Timeline 43
7	Demographic Characteristics of Female Secondary Agricultural Educators in Arizona..... 47
8	Cronbach’s α for Pilot Questionnaire 50
9	Quantitative Data Collection Timeline 52
10	Female Agricultural Educator Job Satisfaction Sources..... 63
11	Classroom Instruction Job Responsibility Satisfaction Factors..... 66
12	FFA Job Responsibility Satisfaction Factors 68
13	SAE Job Responsibility Satisfaction Factors..... 71
14	Female Agricultural Educator Job Dissatisfaction Sources..... 75
15	COVID-19 Agricultural Educator Challenges..... 80
16	Classroom Instruction Job Responsibility Dissatisfaction Factors 85
17	FFA Job Responsibility Dissatisfaction Factors 88
18	SAE Job Responsibility Dissatisfaction Factors..... 91
19	Effects of Being a Female Agricultural Educator on Personal Life Experiences..... 96
20	Factors Contributing to Work-Life Balance 101
21	Female Agricultural Educator Sources of Gender Bias..... 107

22	Female Agricultural Educator Attrition Factors	111
23	Female Agricultural Educator Retention Factors	114
24	AATA Mentoring Program Experience Factors	119
25	AATA Mentoring Program Satisfaction Factors	127
26	Perceived Satisfaction Level for Classroom Instruction.....	129
27	Perceived Satisfaction Level for FFA.....	131
28	Perceived Satisfaction Level for SAE.....	134
29	Perceived Satisfaction of AATA Mentoring Program Mentee Experience Factors ..	136
30	Perceived Satisfaction of AATA Mentoring Program Mentor Experience Factors ..	138
31	Classroom Instruction Job Responsibility Satisfaction by Bachelor’s Degree.....	141
32	Classroom Instruction Job Responsibility Satisfaction by Master’s Degree	143
33	FFA Job Responsibility Satisfaction by Bachelor’s Degree.....	145
34	FFA Job Responsibility Satisfaction by Master’s Degree	147
35	SAE Job Responsibility Satisfaction by Bachelor’s Degree.....	149
36	SAE Job Responsibility Satisfaction by Master’s Degree.....	150
37	Classroom Instruction Job Responsibility Satisfaction by Traditional Certification.	152
38	Classroom Instruction Job Responsibility Satisfaction by Industry Certification	154
39	FFA Job Responsibility Satisfaction by Traditional Certification.....	156
40	FFA Job Responsibility Satisfaction by Industry Certification	158
41	SAE Job Responsibility Satisfaction by Traditional Certification	160
42	SAE Job Responsibility Satisfaction by Industry Certification	161
43	Classroom Instruction Job Responsibility Satisfaction by Early Teachers (Years 1-5)	163

44	Classroom Instruction Job Responsibility Satisfaction by Late Teachers (Years 6+)	165
45	FFA Job Responsibility Satisfaction by Early Teachers (Years 1-5)	167
46	FFA Job Responsibility Satisfaction by Late Teachers (Years 6+).....	169
47	SAE Job Responsibility Satisfaction by Early Teachers (Years 1-5).....	171
48	SAE Job Responsibility Satisfaction by Late Teachers (Years 6+).....	172
49	Classroom Instruction Job Responsibility Satisfaction by Caucasian Teachers.....	173
50	Classroom Instruction Job Responsibility Satisfaction by Hispanic Teachers	175
51	FFA Job Responsibility Satisfaction by Caucasian Teachers.....	177
52	FFA Job Responsibility Satisfaction by Hispanic Teachers	179
53	SAE Job Responsibility Satisfaction by Caucasian Teachers.....	181
54	SAE Job Responsibility Satisfaction by Hispanic Teachers	182
55	Classroom Instruction Job Responsibility Satisfaction by Single Teachers	184
56	Classroom Instruction Job Responsibility Satisfaction by Married Teachers	186
57	FFA Job Responsibility Satisfaction by Single Teachers	188
58	FFA Job Responsibility Satisfaction by Married Teachers	190
59	SAE Job Responsibility Satisfaction by Single Teachers.....	192
60	SAE Job Responsibility Satisfaction by Married Teachers	193
61	Classroom Instruction Job Responsibility Satisfaction by Teachers with Children ..	195
62	Classroom Instruction Job Responsibility Satisfaction by Teachers without Children.....	197
63	FFA Job Responsibility Satisfaction by Teachers with Children	199
64	FFA Job Responsibility Satisfaction by Teachers without Children	201
65	SAE Job Responsibility Satisfaction by Teachers with Children.....	203

66	SAE Job Responsibility Satisfaction by Teachers without Children	204
67	Greatest and Least Job Responsibility Satisfaction by Personal and Professional Characteristics.....	213

CHAPTER I

INTRODUCTION

Background and Setting

The education system in the United States has experienced an increasing annual shortfall in teacher retention over the past century. Dating back to the 1930s, researchers indicated staffing difficulties following the Great Depression (Sherratt, 2016). *A Nation at Risk* revealed that certain fields such as math, science, and special education had severe teacher shortages (Gardner, 1983). Due to limitations in collecting national data, current literature tends to focus on where shortages exist, as well as their relative intensity (Murphy et al., 2003). A recent study by Sutchter et al. (2019) projected that teacher demand will increase over the next decade and “teacher attrition rates will remain steady at 8% annually” (p. 4). Another study by Solomonson and Retallick, (2018) anticipated that the gap in teacher retention is expected to increase as “according to the projected demand for teachers, an annual shortfall of 112,000 educators is expected for the foreseeable future with an estimated 300,000 new teachers being required annually through 2020 to keep up with the current demand” (p. 1). The factors contributing to this shortage include a decrease in the number of individuals entering the profession and an increase in teacher turnover (Solomonson & Retallick, 2018) .

This trend is not unique to any specific population of teachers; agricultural educators also follow this trend. Studies have “shown agricultural education has endured a shortage of highly qualified teachers for at least the past four decades” (Solomonson & Retallick, 2018, p. 2). Eck and Edwards (2019) conducted a longitudinal study to examine the trend in the number of agricultural education teaching positions nationally from 1965 to 2017 to identify the demand for teachers. Their research showed that the number of agricultural educators reached its peak in

1978, at which point there were 12,844 positions. After 1978, school based agricultural education experienced a decline in teaching positions until 1992, after which there was an increase in the number of teaching positions, peaking in 2017 (Eck & Edwards, 2019).

Additionally, Eck and Edwards found that the long-term trend for school based agricultural education has been that not enough newly qualified teachers are certified annually to fill all of that year's open positions; in the past 51 years, only 56.4% of the available teaching positions were filled on average (Eck & Edwards, 2019).

The recurring gap between the supply and demand of qualified agricultural education teachers has led to recruitment efforts of alternatively certified teachers from locations outside the traditional teacher preparation programs of universities (Camp, 2000; Rocca & Washburn, 2006). Because the alternatively certified teachers often do not come with the preparation and mentorship necessary for them to be successful, many of them do not remain long in the profession (Nagy & Wang, 2007). However, it is important to note that certification type is not the only cause of teacher attrition. Research also indicates the following factors contribute to the teacher attrition issue: stress (Myers et al., 2005), burnout (Kitchel et al., 2012), the inability to balance work with family life (Hainline et al., 2015), possessing a low degree of self-efficacy (Hasselquist et al., 2017), inadequate compensation (Lemons et al., 2015), lack of administrative support (Boone & Boone, 2007), lack of student motivation and poor behavior (Tippens et al., 2013), heavy workload (Murray et al., 2011), poor working conditions (Lemons et al., 2015), and a lack of time-management skills (Myers et al., 2005).

Arizona agricultural educators experience these same barriers to teacher retention. There are currently 113 secondary agricultural teachers in Arizona for the 2020-2021 school year; 54 are male and 59 are female (Arizona Agricultural Teachers Association, 2020). Twenty-one of

these teachers are new to the profession (7 male and 14 female), five teachers stayed in the profession but switched to a new program location (2 males and 3 females), and 18 teachers did not return from the previous year (9 males and 9 females) (Arizona Agricultural Teachers Association, 2020). These demographics are displayed below in Table 1.

Table 1

Arizona Agricultural Educator Demographics (N = 113)

Characteristic	Gender	
	Male	Female
Gender	47.78%	52.21%
New to the profession	6.19%	12.30%
Changed program location between 2019-2020 and 2020-2021 school years	1.76%	2.65%
Left the teaching profession	7.96%	7.96%

Problem Statement

Nationally, it is estimated that women comprise approximately 46.8% of the workforce in the U.S. (United States Department of Labor, 2018). However, further research is necessary to ascertain current percentages of female agricultural educators. Knight (1987) discovered that women comprised a total of 5.1% of the agricultural education teaching positions nationwide. One decade later, this percentage had increased to 15.8% (Camp, 1998). Research by Foster (2003) found that in 2000, 15.77% of the national agricultural teacher population was female, a number nearly identical to that found in Camp’s study.

As the profession of agricultural education has evolved, the number of female educators has slowly increased; as a result, the majority of older and more experienced agricultural

educators are male, while the younger teachers in the profession are female (Sorenson et al., 2017). Cano and Miller (1992) identified that male agricultural educators were significantly older, had more years of teaching experience, and had been in their current teaching positions significantly longer than female agricultural educators. This finding was corroborated by Gilman et al. (2012).

Analyzing long term retention data reveals there are no female agricultural educators in Arizona who have taught for longer than 28 years (Wallace, 2019). However, nine male agricultural teachers have taught for 28 years or more (Wallace, 2019). A previous study revealed that the average age for female agricultural educators in Arizona is 32.7 years with an age range from 22 to 52 years ($n = 39$) (Wallace, 2019). The average years of experience for female agricultural educators in Arizona is 6.94 years, with a range in years of experience from 1 to 28 years teaching experience ($n = 39$) (Wallace, 2019). In contrast, the age range for male teachers in Arizona is 22 to 67 years, with an average age of 40.97 years ($n = 42$) (Wallace, 2019). Male teachers range in experience from 1 to 41 years of teaching, possessing an average of 12.38 years of experience as agricultural educators ($n = 42$) (Wallace, 2019). This data indicates a significant difference in the gap between male and female Arizona agricultural educator years of experience in the profession. Average age and teaching experience by gender are reported in Table 2.

Table 2*Arizona Agricultural Educator Average Age and Teaching Experience (n = 86)*

Characteristic	Gender			
	Male		Female	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Average Age	40.97	17.13	32.73	11.72
Average teaching experience	12.38	13.84	6.94	9.71

Note. In this study, male ($n = 43$) and female ($n = 43$) Arizona agricultural educators responded to an agricultural mechanics survey. Average age and teaching experience are reported in years.

The gender gap in work-family conflict and teacher retention is an issue the Arizona Agricultural Teachers Association (AATA) has acknowledged needs to be addressed. Although “the challenges experienced by female agricultural teachers have been documented [...], the need still exists to help female teachers with this need” (Estep et al., 2014, p. 32). Studies have shown that support at the local level to alleviate the challenges and facilitate the needs of female agricultural educators has a positive effect on their ability to achieve balance between their personal and professional lives (Baxter et al., 2011; Knight & Bender, 1978; Mattox, 1974). Further research needs to be conducted to investigate the job responsibilities that cause female secondary agricultural educators in Arizona the greatest amount of dissatisfaction, potentially leading to their decision to leave the profession.

Purpose of the Study

The purpose of this applied action research is to identify factors that contribute to job satisfaction of female secondary agricultural educators in Arizona. The information acquired through this research may aid in developing a framework for an improvement plan to create a

teacher support system as part of a new or existing committee within the AATA. There are also implications to use the findings in the University of Arizona's agricultural education teacher preparation program.

Research Questions

The following research questions were developed to guide this study:

1. Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?
2. What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?
3. Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?
4. Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?

Assumptions

In qualitative research, assumptions consist of the beliefs of the researcher regarding the research methods used to collect and analyze data (Creswell, 2003). The procedure to formulate the assumptions is typically inductive and relies heavily on the researcher's prior experience with collecting and analyzing data. In conducting this study, the following underlying assumptions were presumed to be true:

1. The respondents were truthful in all their responses.
2. Most female Arizona secondary agricultural educators attended the University of Arizona and completed the teacher preservice program at that institution.

3. This study's population included some female secondary agricultural educators who did not attend the University of Arizona agricultural education preservice teacher preparation program, including alternatively certified secondary agricultural educators.

Implications

The results from this study can be used to improve the current practice of supporting female agricultural educators in Arizona. Data from the qualitative and quantitative portions of this research project were analyzed to determine the job responsibilities that cause the greatest levels of female teacher satisfaction and dissatisfaction. The results can also be utilized to suggest methods for the creation of a support/improvement plan to alleviate some of the identified challenges. Such a plan could drive the formation of a new Female Agricultural Teacher Support Committee within the AATA, increase female agricultural educator-centered professional development, and serve to reconfigure the AATA New Teacher Mentoring Program. Information can also be integrated into the current agricultural teacher preparation program at the University of Arizona, as well as alternative certification programs, to better prepare prospective female teachers for the challenges they will face in the field. In this study, the following implications were addressed:

1. This study's questionnaire can be replicated and altered for use in other states and for other professional development need areas.
2. The results of this study can be considered and used to improve education, course offerings, and professional development opportunities for female secondary agricultural educators in Arizona.
3. The results of this study can identify professional development needs that can be offered through the AATA.

Applications

It is important to assess the reasons why female agricultural educators in Arizona leave the profession. Increased understanding of the factors that contribute to job responsibility satisfaction and dissatisfaction may lead to improved retention rates and proactive member support measures. Applications that were formed in conducting this study were:

1. The findings of this study can be used to revise current professional development opportunities offered by the University of Arizona and the AATA for female secondary agricultural educators.
2. The findings of this study can be used to revise the current AATA New Teacher Mentoring Program.

Limitations

Caution should be taken to not assume job satisfaction is the leading cause of female teachers leaving the profession; female agricultural educators could also be leaving for positive reasons such as promotions or better job opportunities in the agricultural industry. Nonetheless, findings from this research on gender and job satisfaction can be utilized to formulate an improvement plan to provide support to female secondary agricultural educators in Arizona and increase retention.

In research involving such a small census, selecting a purposeful group of teachers for the qualitative portion of the study is generally inefficient to accomplishing the study's purpose (Koziol et al., 2015). The dominant qualitative research limitation is the presence of homogeneity (the traditional dominant thoughts, values, and actions of a group); the interpretation of homogeneity can be problematic because it is rarely verbally expressed (Martin & Kitchel, 2015). One major concern in conducting this type of research is ensuring that the

interview questions are clear and concise, and that they do not lead participants to biased responses (Fraenkel et al., 2016). Personal interviews were deemed more effective than a group interview in this study; a group interview format posed an additional potential issue if participants did not feel comfortable enough to answer the questions honestly in front of their peers or in front of me (Fraenkel et al., 2016). I took every effort to guarantee that all participants felt at ease with the interview location and myself so that relevant data could be collected for meaningful analysis.

Quantitative research limitations (threats to internal validity) included subject characteristics such as participant age, gender, ethnicity, attitude, socioeconomic status, and political and religious beliefs (Fraenkel et al., 2016). There was also a possibility of data collector bias because I share affiliation with the AATA. I sought to monitor subjectivity in this project to minimize the effects of data collector bias and allow for naturalistic inquiry. The following limitations were recognized in conducting this study:

1. The findings, conclusions, and recommendations of this study are only generalizable to the female Arizona secondary agricultural educators that participated in this study.
2. The factors that influence female Arizona secondary agricultural educators to identify satisfaction and dissatisfaction values are perceptions of female Arizona agricultural educators and are not actual values.
3. Not all female Arizona secondary agricultural educators have participated in the AATA New Teacher Mentoring Program.

Definition of Terms

The following operational terms were defined as provisions of this study:

- **Agricultural Education:** A total agricultural program uses a three-component model of implementation which includes classroom and laboratory instruction, leadership development through FFA, and experiential learning through Supervised Agricultural Experiences (SAE). All three components must be successfully integrated to produce a total program whose members exemplify premier leadership, personal growth, and career success (National Association of Agricultural Educators, n.d.).
- **Classroom Instruction:** Classroom Instruction provides for contextual learning within the classroom through hands on lessons that teach students relevant skills in the agricultural industry (National Association of Agricultural Educators, n.d.).
- **FFA:** FFA is one of the largest student-led organizations in the United States (National Association of Agricultural Educators, n.d.). Through participation in FFA Career and Leadership Development Events (CDEs and LDEs), students acquire leadership skills that are applicable to future careers (National Association of Agricultural Educators, n.d.).
- **SAE:** SAE programs allow for work-based learning based on relevant curriculum presented in the classroom. The skills gained in SAE can enable students to be successful in future careers (National Association of Agricultural Educators, n.d.).
- **Attrition:** Although attrition can occur in both male and female agricultural educator populations, this study focused specifically on attrition of female agricultural educators. The loss of female secondary agricultural educators can occur for many reasons including retirement, resignation, job elimination, personal health, or other personal reasons.

- Retention: The decision and long-term commitment by female secondary agricultural educators to remain in the profession.
- Job Satisfaction: Positive feelings and perceptions of contentment by female secondary agricultural educators when they view themselves in relation to their jobs.
- Job Dissatisfaction: Negative feelings and perceptions of discontent by female secondary agricultural educators when they view themselves in relation to their jobs.
- Burnout: Although burnout can occur in both male and female agricultural educator populations, this study focused specifically on burnout of female agricultural educators. Burnout is “a state of emotional, physical, and mental exhaustion caused by excessive and prolonged stress” (HelpGuide, n.d., What is Burnout? section, para. 1).
- Mentorship: Mentorship refers to the guidance and support provided by an experienced and respected individual in the profession of agricultural education. Mentors can be either male or female, and can be matched with either male or female mentees.

Summary

Education in the United States continues to experience a shortage of qualified teachers. The agricultural education profession follows this trend. Agricultural educator retention was identified as a main priority by the 2007-2010 National Research Agenda for Agricultural Education (Osborne, n.d.). Female agricultural educators face additional challenges that contribute to their decision to stay in the profession. This research attempted to identify sources of job satisfaction and dissatisfaction that influence female Arizona agricultural educators’ retention or attrition decisions. The findings from this study have implications to improve the University of Arizona’s agricultural education teacher preparation program. The information may also prove useful to the AATA by identifying areas of additional support need for female

agricultural educators. Such knowledge is essential to bridge the gap in identifying obvious and imperceptible sources of job satisfaction and dissatisfaction, thus encouraging long term retention of quality female agricultural educators in Arizona.

CHAPTER II

REVIEW OF LITERATURE

Purpose of the Study

The purpose of this applied action research is to identify factors that contribute to job satisfaction of female secondary agricultural educators in Arizona. The information acquired through this research may aid in developing a framework for an improvement plan to create a teacher support system as part of a new or existing committee within the AATA. There are also implications to use the findings in the University of Arizona's agricultural education teacher preparation program.

Research Questions

The following research questions were developed to guide this study:

1. Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?
2. What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?
3. Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?
4. Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?

Conceptual Framework

Reviewing the literature on the reasons contributing to why female agricultural educators leave the profession revealed two different categories of reasoning: gender-specific (feminist

theories) and gender-neutral. Gender-specific themes that applied to this research included the social construction of gender, work-life balance, and gender bias. Gender-neutral themes that contributed to our understanding of female teacher attrition included Bandura's theory of self-efficacy, job satisfaction vs. dissatisfaction, vulnerable teacher populations, mentoring, sources of burnout, commitment to the profession, and social integration.

Gender-Specific Themes

The Social Construction of Gender

Biology has historically been used to explain the differences between men and women. The physical differences between the sexes revealed by biology indicate the first cues society has to direct an individual in formulating a gender identity. Biological determinists are individuals who rely on the concept of biology as the sole determinant for gender (Launius & Hassel, 2015). The "biological determinist looks at the occupational segregation of labor and locates the explanation for this division in genetic, biological, and evolutionary differences" (Launius & Hassel, 2015, p. 59). A biological determinist would further argue that because of a woman's biological propensity for gestation, lactation, and early childcare, women are attracted to careers that make use of these "natural" inclinations (Launius & Hassel, 2015). This category of careers, which encompasses education, is afforded a lower status and lower compensation, thus contributing to the gender wage gap (Launius & Hassel, 2015).

The gender wage gap is "the common gap between men's and women's earnings, with women generally receiving lower pay," which contributes to the segregation of labor (Launius & Hassel, 2015, p. 61). Labor segregation can be divided into two different issues: horizontal segregation of labor and vertical segregation of labor. Horizontal segregation refers to the fact that male and female-dominated careers are clustered at opposite ends of the scale (Launius &

Hassel, 2015). Vertical segregation, which occurs simultaneously, alludes to the idea that even in careers that have a more equal mixing of genders, the women still “tend to be clustered in positions with lower pay and prestige” (Launius & Hassel, 2015, p. 63). Education, a female dominated profession, is seen as less physically demanding and thus is less valued and correspondingly lower compensated. In the past, the vertically segregated male hierarchy of secondary agricultural education instituted barriers that attempted to keep women from obtaining a career in agricultural education (Kelsey, 2007). While these entry barriers have been eliminated, other issues such as the gender wage gap of the teaching profession are still very much a part of the public education system (Kelsey, 2007; Tyack & Hansot, 1992).

Agricultural education, as a profession, is built on a strong foundation of leadership. Agricultural educators are expected to grow and mold leaders by themselves embodying those same qualities of leadership which are the tenants of the field: confidence, ambition, self-reliance, advocacy, and cooperation. Unfortunately, these same leadership characteristics valued by the agricultural education profession tend to “work against women and construct leadership work as masculine in nature” (Launius & Hassel, 2015, p. 65). Women also indicate feeling pressure to “prove to their fellow teachers, students, parents, and administrators that they are competent in their job skills” (Baxter et al., 2011, p. 13).

Work-Life Balance

Work-life balance is the ability of an individual to prioritize and allocate time between both personal and professional responsibilities. Female agricultural educators’ challenges in fully committing to the profession are amplified when they have a family. This is aggravated by the fact that teaching agriculture is often viewed as a lifestyle as opposed to just a career (Buehler, 2009). Johnson (1997) found that while both mothers and fathers participate in parenting, it is the

mother who provides the greatest source of care and nurturing to the children. Hainline et al. (2015) identified that although both men and women participate in household activities, family responsibilities are primarily the responsibility of women. Furthermore, research has shown that “certain family responsibilities [are] tasked to females (i.e., grocery shopping, meal preparation, house cleaning, and childcare), whereas other responsibilities [are] tasked to males (i.e., yard work and farm work)” (Hainline et al., 2015, p. 41). Keene and Reynolds (2005) conducted research to identify how the demands of family life impact female agricultural educator performance. Female teachers were twice as likely to view the demands of family as having negative consequences on their ability to conduct work; additionally, female educators made more adjustments to their work schedule to accommodate their family than their male counterparts (Keene & Reynolds, 2005).

Foster (2001) researched how roles and responsibilities are differentiated across genders of agricultural educators. The results of the study indicated that certain roles and responsibilities are mainly exclusive to women; female teachers in the study stated that it was difficult to uphold their gender roles within the home while still meeting the high expectations of the teaching requirements (Foster, 2001). Female teachers have expressed “a significantly greater need for assistance” in navigating the challenges they face in balancing their personal and professional lives (Estepp et al., 2014, p. 32). Female agricultural educators also expressed guilt associated with the time they spent away from home and apprehensions about the decision to start a family due to the perceived and/or actual negative impact it would have on their career (Foster, 2001). Buehler (2008) identified that female educators who leave the profession to start a family rarely return. The study also showed that the agricultural education profession is losing female teachers

by not helping them find ways to successfully stay in their teaching organizations or to return following family leave (Buehler, 2008).

Farkas et al. (2000) reported that 81% of all teachers expressed a need for their job to allow adequate time to accommodate family obligations if they were to remain in the profession. Castillo and Cano (1999) found that female teachers leave the profession faster than males, mostly because of their inability to achieve work-life balance. Typically, female teachers leave for jobs that are less time consuming and that reduce conflicts between their personal and professional lives (Castillo & Cano, 1999). However, female agricultural educators who choose to remain in the profession were also found to value family life and personal responsibilities above all else (Kersaint et al., 2007). It is important to note that, regardless of gender, as years of experience increase, work-life conflict decreases (Cinamon & Rich, 2005). This is most likely because the more years of teaching experience an individual has, the more likely he or she has acquired the necessary skills to manage job responsibilities without infringing upon family activities (Sorensen et al., 2017). Another reason for the decrease in work-life conflict experienced by female agricultural educators with children could be that as their children age, they become more independent and thus require less concentrated supervision at home (Arizona Supreme Court, 2009).

Gender Bias

Gender bias, whether conscious or implicit, is a preference and/or deference for one gender over the other (Launius & Hassel, 2015). Gender bias is present in nearly every facet of our society, from our government and judicial systems to jobs and social interactions (Launius & Hassel, 2015). As recently as 2011, the United States Department of Labor was cited as listing agricultural education on their list of non-traditional jobs for women (Baxter et al., 2011).

Women were not formally permitted into agricultural education classes until 1969; since then, the number of female agricultural educators has slowly been increasing (National Association for Agricultural Educators, n.d.). Knight (1987) indicated that 5.1% of the agricultural teaching positions in America were held by women. By 1998, that number had increased to 15.8%, with female agricultural educators still vastly underrepresented in the profession (Camp, 1998).

Kelsey (2007) investigated the reasons for this under-representation of females in the profession of agricultural education. She found that although women can come from contextually rich agricultural education backgrounds and experiences, only a small number of them go on to pursue teaching degrees, with gender bias being one of the leading factors in their decision-making process (Kelsey, 2007). Examples of gender bias include unequal pay, positional bias, and outdated viewpoints on gender roles. Further research revealed that in many cases, the strength and effects of gender bias decrease in female agricultural educators as their self-efficacy and number of years teaching increase (Foster et al., 1991; Kelsey, 2007). Although the research shows that there is an increase in the number of female secondary agricultural educators, studies also indicate that female teachers do not remain in the profession for a long period of time, indicating a need to research potential barriers to female agricultural educator retention (Castillo & Cano, 1999).

Gender-Neutral Themes

Bandura's Theory of Self-Efficacy

Bandura's theory of self-efficacy refers to the innate belief of an individual that they have the ability to accomplish certain tasks at a certain level of competence (Bandura, 1986 & 1997). While self-efficacy comes into question especially during an agricultural educator's first few years of teaching, it is not uncommon for teachers of any experience level to suffer lack of

confidence in their self-efficacy (Knobloch, 2006). First year teachers suffer the greatest loss in self-efficacy during their first ten weeks of instruction (Wolf, 2011). Studies have shown that gender may have some influence on self-efficacy. Ross et al. (1996) discovered that female teachers with graduate degrees exhibited higher teacher self-efficacy than those with bachelor's degrees. Self-efficacy can be negatively influenced by teachers moving to a new community where they feel unconnected; the stress of culture shock can cause anxiety which inhibits work and creates an environment for job dissatisfaction (Kennedy et al., 2012; Mumford, 1998). In contrast, mastery experience is the most effective way to build self-efficacy (Bandura, 1994). It is important to note that teacher self-efficacy is positively related to an agricultural educator's plan to stay in the profession (Evans & Tribble, 1986).

A high sense of self-efficacy promotes the concept of social connectedness, where an individual focuses on a feeling of belonging to life experiences rather than the challenge of the experience itself (Lee et al., 2001). A high level of social connectedness allows agricultural educators to proactively adapt to social and relational changes (Langley et al., 2014). Thus, an agricultural educator with both high self-efficacy and high social connectedness will have less tendency to leave the profession because of job dissatisfaction (Langley et al., 2014).

Job Satisfaction/Dissatisfaction

Teaching is a profession of great uncertainty; this degree of ambiguity “fuels a teacher's dissatisfaction” (Johnson & Birkeland, 2003, p. 584). Herzberg's motivator-hygiene theory, also known as the two-factor or dual-factor theory, states that there are a distinct set of work factors that cause job satisfaction, and another distinct set of factors that cause dissatisfaction (Herzberg et al., 1959). The satisfaction and dissatisfaction factors operate independently of one another. Increasing job satisfaction requires leaders and managers to be concerned with if the job provides

opportunities for employees to experience achievement, advancement, and self-realization (Herzberg et al., 1959). Decreasing dissatisfaction necessitates a focus on the workplace environment factors that lead to employee discontent (policies, procedures, and working conditions) (Herzberg et al., 1959). The motivator-hygiene theory identifies “motivators” as recognition for one’s personal achievement, ability to take on additional responsibilities, and opportunities for personal advancement (Herzberg et al., 1959). In contrast, “hygiene” factors include working conditions, professional relationships, salary and benefits, and management style; these factors do not produce satisfaction, however, dissatisfaction results from their absence (Herzberg et al., 1959).

The motivator-hygiene theory can be applied to agricultural education in that “all careers have factors, which lead to job satisfaction or dissatisfaction, often occurring concurrently within the workplace” (Solomonson & Retallick, 2018, p. 3). Herzberg et al. (1959) recommended that working conditions could be proactively altered to increase job satisfaction rates if researchers could identify potential causes of dissatisfaction with their employees. Tippens et al. (2013) concluded that agricultural educator retention and attrition rates were tied to overall job satisfaction, as related to the following four variables: employment variables, working conditions, family and personal factors, and compensation. Bruening and Hoover (1991) concluded that the level of satisfaction “secondary agricultural education teachers [had] with their jobs was best explained by the fulfillment the teachers received from teaching and the satisfaction they derived from teaching” (p. 42). Although many studies have revealed that most agricultural educators are satisfied with their job when it comes to their ability to experience achievement, advancement, recognition, and responsibility (Castillo & Cano, 1999), female

agricultural educator job satisfaction as it relates to personal and family commitments has in the past been found to be low (Foster, 2001).

Although job satisfaction is often considered a single concept, it is composed of several sub-dimensions that combine to formulate an individual's overall satisfaction level (management skills, co-workers, working conditions, promotion, pay, and external environment) (Özpehlivana & Acar, 2015). Evaluating different characteristics of the job enables the researcher to identify the level of job satisfaction that individual gains from the job (Luthans, 1973; Mullins, 1996; Oshagbemi, 1999). It is also important to note that while a majority of the literature sees satisfaction and dissatisfaction as opposites, according to Herzberg's motivator-hygiene theory, the determinants of satisfaction and dissatisfaction are different constructs (Herzberg et al., 1959; Herzberg, 1968). As a result, satisfaction and dissatisfaction cannot be viewed as opposite extremes along the same continuum. However, it is generally accepted that low levels of satisfaction indicate a degree of dissatisfaction regarding a particular concept of measurement.

Vulnerable Teacher Populations

As a result of the national agricultural educator shortage, due to both a lack of entry into agricultural education teacher preparation programs and attrition, there are more teachers entering the profession who come from alternative certification backgrounds (Eck & Edwards, 2019; Roberts & Dyer, 2004). In traditional teacher preparation programs at the University of Arizona, students acquire a B.S. in Agricultural Education via a four-year program which includes a semester of student teaching. In contrast, alternative certification programs allow individuals with industry experience to become certified as a teacher without the necessity of a college degree and pedagogical expertise (Roberts & Dyer, 2004). However, it must be noted

that being traditionally certified over being alternatively certified is not a guarantee of success (Roberts & Dyer, 2004).

Robinson and Edwards (2012), identified that agricultural educators who undergo a traditional teaching certification program are more likely to remain in the profession than those who receive an alternative industry-experience type of certification. Their study revealed that traditionally certified teachers “were more apt to remain in teaching than their [alternatively certified] counterparts, with population estimates being approximately 59% and 17%, respectively” (Robinson & Edwards, 2012, p. 157). Darling-Hammond et al. (2002) also found that “teachers prepared in a single formal program of preparation feel better prepared than those who take a series of courses from different institutions” (p. 294); however, both categories of teachers (single program and multiple institution) “feel better prepared than those who enter through alternative programs that minimize preservice training” (Elliott et al., 2017, p. 5).

Because the agricultural industry is so diverse in terms of the broad spectrum of knowledge and skill needed to incorporate into an agricultural education program, it is difficult for teachers with alternative certifications to be competent in all the necessary areas of expertise and still meet all their other personal obligations (Roberts & Dyer, 2004). Research confirms that responsibilities such as managing agricultural mechanics laboratories, greenhouses, working with various large and small livestock animals, and other skills where the instructor lacks experience creates stress, which can lead to job dissatisfaction and burnout and provide a challenge to teacher retention (Wolf, 2011).

New teachers are another vulnerable section of the agricultural education profession. Beginning agricultural educators indicate that one of their greatest areas of concern is that they feel pressure from both a lack of knowledge in the various subject areas and a low level of self-

efficacy to deliver the instruction (Paulsen et al., 2015). This is in contrast to agricultural educators who have been teaching three years or more, where research has shown that a lack of administrative support, inconsistent disciplinary strategies, and low student self-motivation are the leading sources of dissatisfaction that lead to an agricultural educator's decision to leave the profession (Boone & Boone, 2009). However, it is worth noting that some women choose to leave the profession because of job opportunities that allow them to balance work and family while still enjoying their career as a professor or administrator. According to Grissmer and Kirby (1987), agricultural educator "attrition is more likely in educators who are in their first few years of teaching and in teachers who are towards the end of their career; attrition is lowest among mid-career teachers" (Tippens et al., 2013, p. 59).

Lastly, vulnerable teacher populations can also refer to teachers that fall into a certain ethnicity category that makes it difficult for them to transition smoothly into the agricultural education profession. Historically, diversity of secondary agricultural educators has been found to be low; additionally, literature on the current number of minority agricultural educators is sparse (Bowen & Rumberger, 2002). A study by Camp (2000) indicates that 2% of agricultural educators are African American, 2% are Hispanic, and 1% are Native American. Support of minority secondary agricultural educators is a necessary measure to promote their recruitment and inclusion into the agricultural education community (Bowen & Rumberger, 2002).

Mentoring

Pirkle (2011) defined a mentor teacher as a master teacher with wisdom and experience who guides a new teacher through their first year by providing their mentee with instructional support and feedback. To produce high quality mentors, mentor teachers must be provided with professional development in educational leadership to meet the diverse needs of their mentees

(Kent et al., 2012). Hughes (2012) identified that new teachers enter the profession due to their perceptions of the inherent benefits of the job (vacation time, salary, working conditions, and the desire to help students learn and grow). However, once first year teachers are isolated within their classrooms, these benefits are not as intrinsically motivating as they once appeared (Hughes, 2012). As a result, a high percentage of new teachers leave the profession after their first year due to experiencing burnout (Kent et al., 2012).

Studies have shown that mentoring is an integral part of the induction phase of the new teacher and that it plays a positive role in retention and the reduction of burnout (Kent et al., 2012). Winters and Cowen (2013) concluded teacher quality must be developed within their first five years of teaching. Teacher quality is positively correlated with teacher retention; new teachers who are not contributing effectively to student learning are more likely to leave the profession (Winters & Cowen, 2013). Mentoring is one such way to improve the quality of first year educators (Winters & Cowen, 2013).

According to Ingersoll and Strong (2012), participating in a mentoring program produced educators who had greater levels of commitment, experienced greater job satisfaction, and were more likely to remain in the profession. A study by Cheng and Brown (1992) found teachers who participated in a mentoring program were more likely to rate their overall teaching experience as positive as opposed to those who did not participate in a mentoring program (88% to 53%). Fuller (2003) corroborated this finding, as did Spuhler and Zetler (1993, 1994, 1995). Ricketts et al. (2006) recommended that it would be useful for female agricultural educators to have a strong mentor teacher to help them mitigate the challenges they face in teaching.

Burnout

Burnout is a reaction to chronic stress which can negatively impact work outcomes; it is evident through such professional characteristics as lack of commitment and engagement, increased absenteeism, and ultimately attrition (Shirom, 2003). Although research reveals that overall agricultural educators are satisfied with their jobs, the areas in which they experience dissatisfaction are those factors associated with burnout (Shirom, 2003). It is essential to study burnout as it relates to teacher retention because it incorporates both work and family into the picture, as well as illustrates the conflict between these two domains that can lead to teacher attrition. Higher job involvement leads to increased work-family conflict, thus contributing to increased burnout, and reduced job satisfaction and commitment levels (Adams et al., 1996).

One way to combat burnout is by teaching agricultural educators effective coping mechanisms. Coping behaviors can improve teacher retention rates by teaching educators to manage daily stress, leading to increased job satisfaction (Carmona et al., 2006). Burned-out teachers are more susceptible to employing emotion-focused coping strategies when confronted with stress; emotion-focused coping methods are “typically defensive in nature and only cope with the emotion resulting from the stress” (Thieman et al., 2012, p. 90). Teacher preparation programs should integrate problem-solving strategies and coping techniques into their curriculum (Castro et al., 2010). They should also implement a cohort system to foster social belonging through peer-support to help alleviate the stress that causes burnout (Castro et al., 2010; Croom, 2003).

Commitment

Individual personal commitment to remain in the profession contributes to teacher retention. Day et al. (2005) identified commitment not only as a predictor of attrition, but also as

an essential component of teacher performance, burnout, and student influence. Singh and Billingsley (1996) also found that commitment is a precursor of retention because if agricultural educators are committed to the values and expectations of their organization, they are less inclined to leave the profession. Agricultural educators who are committed to their profession are also intrinsically motivated, allowing them to focus on general instruction and integration into their school culture (Day, 2008; Firestone & Pennell, 1993). As reported by Louis (1998), “teachers require sustained stimulation to remain excited about and committed to their work” (p. 13). If teachers are committed, actively engaged, and mentally stimulated, they are more likely to remain in the agricultural education industry (Louis, 1998).

Social Integration

Social integration is the ability of agricultural educators to feel socially connected to others in their profession. Studies have shown that an agricultural educator’s ability to achieve social integration can have a significant impact on both teacher satisfaction and burnout/attrition rates (Chapman, 1984). Compared to other teaching disciplines, agricultural educators are often isolated from their peers (Moser & McKim, 2020). Given that agricultural programs come in a wide configuration of urban and rural programs, the isolation may be geographical as well as social. A rural agricultural educator might be hundreds of miles away from their next closest agricultural educator, making face-to-face communication and support difficult. Additionally, because of the nature of their curriculum, agricultural programs are often isolated away from the general campus population to accommodate laboratories, agricultural mechanics shops, and land laboratory facilities (Chapman & Hutcheson, 1982). This lack of socialization from other agricultural educators in their state as well as other teaching professionals on their home campus reduces an agricultural educator’s ability to interact socially with others, which can contribute to

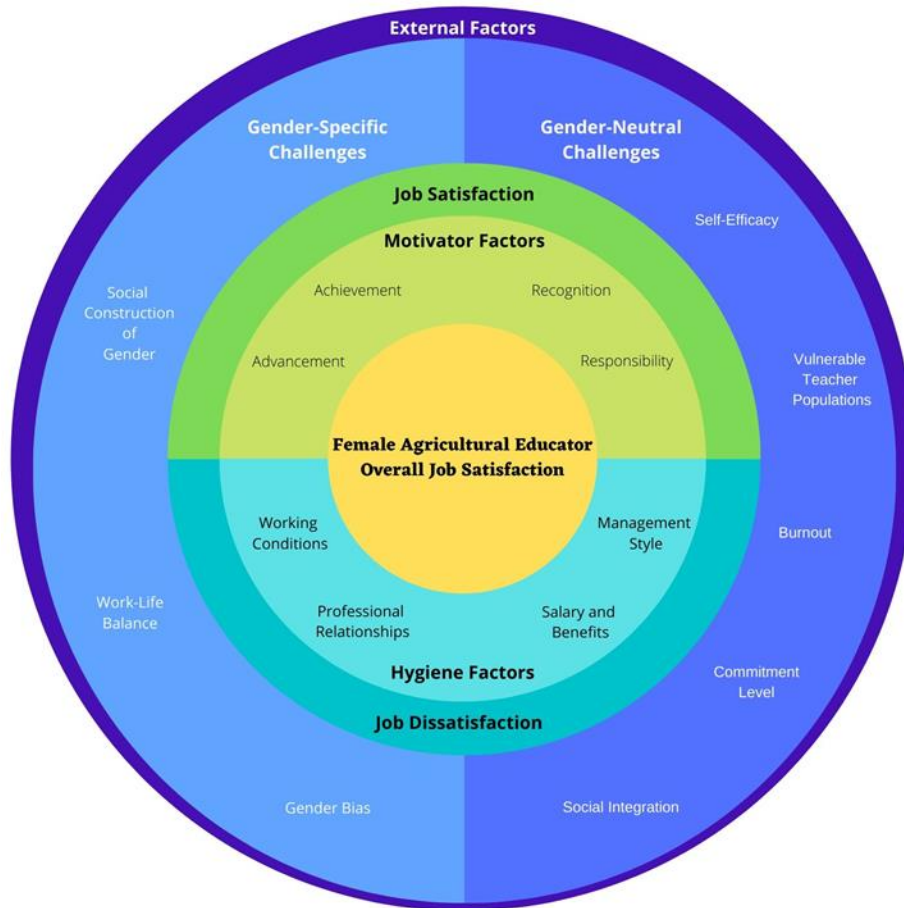
dissatisfaction and future decisions to leave the profession for jobs where they feel more socially supported (Inman & Marlow, 2004). Collaboration and collegiality contribute to an agricultural educator's propensity to persist in the face of challenge and motivate them to return every year (Boone & Boone, 2007). In an effort to achieve this sense of inclusiveness, some teachers will move from program to program until they reach one in which they feel socially accepted and experience higher levels of career satisfaction (Johnson & Birkeland, 2003).

Conceptual Model

The following conceptual model was developed to explain the interaction between motivator and hygiene factors, and gender-specific and gender-neutral challenges faced by female Arizona agricultural educators that can influence female teacher retention or attrition decisions (Figure 1). All the factors interact to create a concise illustration of the issues that influence female agricultural educator job satisfaction. This research aimed to detect sources of job satisfaction and dissatisfaction in the areas of Classroom Instruction, FFA, and SAE; identifying both support needs and coping strategies employed by female agricultural educators in Arizona can facilitate the creation of a retention improvement plan.

Figure 1

Wallace Model of Factors Affecting Female Secondary Agricultural Educator Job Satisfaction



Note. The Wallace Model shows the interrelation between motivator and hygiene factors and external gender-specific and gender-neutral challenges on female secondary agricultural educator overall job satisfaction.

There are many internal and external factors that contribute to job satisfaction and dissatisfaction within the workplace. The factors are divided into three different categories: external factors, motivator factors, and hygiene factors. External factors are those that are not directly controlled by the work environment but do have an overall impact on job satisfaction. These factors include: the social construction of gender, work-life balance, gender bias, self-efficacy, vulnerable teacher populations, burnout, commitment level, and social integration.

Motivator factors are those within the workplace that result in job satisfaction levels. These include advancement, achievement, recognition, and responsibility. Lastly, hygiene factors are the process of providing incentives or threat of punishment to make someone do something, thus leading to job dissatisfaction. Hygiene factors include working conditions, professional relationships, salary and benefits, and administrative management style. Table 3 below reveals the axial coding scheme that was used to analyze the interview findings following transcription as they relate to the external, motivator, and hygiene factors.

Table 3*Interview Coding Scheme*

Factor	Code	Description
External	EF	Factors outside the work environment that contribute to satisfaction/dissatisfaction levels
	SCG	Social Construction of Gender
	WLB	Work-Life Balance
	GB	Gender Bias
	SE	Self-Efficacy
	VTP	Vulnerable Teacher Population
	BNT	Burnout
	CL	Commitment Level
	SI	Social Integration
Motivator	MF	Factors inside the work environment that contribute to satisfaction levels
	ADV	Advancement
	ACH	Achievement
	REC	Recognition
	RES	Responsibility
Hygiene	HF	Factors inside the work environment that contribute to dissatisfaction levels
	WC	Working Conditions
	PR	Professional Relationships
	SB	Salary and Benefits
	MS	Management Style

Note. While external, motivator, and hygiene factors can contribute to job satisfaction, conclusions on decisions to stay or leave the profession cannot be based solely on their occurrence.

Summary

There is a plethora of research that identifies the factors that contribute to female agricultural educators' decisions to stay or leave the profession. It is essential that this understanding be used to distinguish what can be done to support female agricultural educators despite the challenges they face. Gender-specific themes (the social construction of gender, work-life balance, and gender bias) and gender-neutral themes (Bandura's theory of self-efficacy, job satisfaction vs. dissatisfaction, vulnerable teacher populations, mentoring, sources of burnout, commitment to the profession, and social integration) interact to influence female agricultural educator retention. Motivator and hygiene factors are also impacted by these themes, thus effecting female agricultural educator's perceived self-efficacy about their teaching ability. Strong support networks and mentoring programs can alleviate some of the stressors that contribute to attrition. This study intended to identify which job responsibilities have the greatest impact on female agricultural educator job satisfaction, and determine if relationships exist between the themes, factors, and job responsibilities.

CHAPTER III

METHODS

Purpose of the Study

The purpose of this applied action research was to identify factors that contribute to job satisfaction of female secondary agricultural educators in Arizona. This was applied action research because the overall goal was to provide practical solutions to specific issues in the Arizona agricultural education community by making recommendations that acknowledge and alleviate some of the challenges faced by female agricultural educators. The information acquired through this research may aid in developing a framework for an improvement plan to create a teacher support system as part of a new or existing committee within the AATA. There are also implications to use the findings in the University of Arizona's agricultural education teacher preparation program.

Research Questions

The following research questions were developed to guide this study:

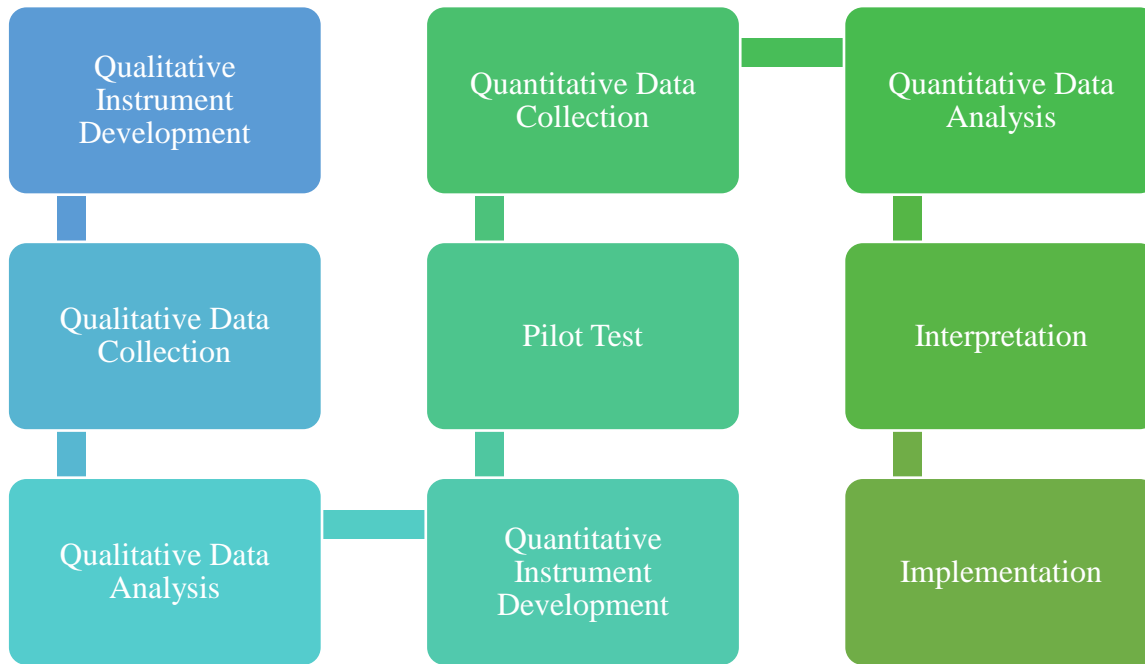
1. Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?
2. What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?
3. Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?
4. Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?

Operational Framework

Figure 2 indicates the operational framework that was used to accomplish the research purpose and objectives. The personal interviews underwent coding to identify themes of job responsibilities that contribute to female secondary agricultural educator job satisfaction levels. SPSS was used to analyze the results of the questionnaire to further identify sources of job satisfaction and dissatisfaction as well as to collect demographic data. The findings from the interviews and questionnaire were used to create a picture of female secondary agricultural educator perceptions on job responsibilities in which they may need additional support. Based on these indications, I could then make recommendations for a mentoring improvement plan to increase female secondary agricultural educator job retention.

Figure 2

Research Operational Framework



Note. Operational framework showing the methods that will be used to collect data on female secondary agricultural educator perceptions on satisfaction levels of job responsibilities, leading to the creation of a mentoring improvement plan.

Research Design

This mixed methods study used an exploratory sequential design to identify the factors that produce the greatest levels of job satisfaction and dissatisfaction to female agricultural educators in Arizona. Some of the strengths of choosing an exploratory sequential design are that having separate qualitative and quantitative phases make the design straightforward to describe, implement, and report. I was also able to produce two new instruments as the products of the research process. Additionally, even though this design typically emphasizes the qualitative portion, including a quantitative component can make the qualitative findings more acceptable to quantitative-biased audiences. The findings from this study resulted in greater determination of

which topics and strategies should be addressed to minimize female agricultural educator burnout and increase retention. In following this design, both qualitative in-depth interviews and a questionnaire were utilized to solicit narrative and quantitative data. The following sections are broken down into Phase One (qualitative) and Phase Two (quantitative) segments for ease of understanding.

Phase One

Variables of Interest

For this part of the research, the main variables of interest were the external factors (EF) (social construction of gender, work-life balance, gender bias, self-efficacy, vulnerable teacher populations, mentoring, burnout, commitment level, and social integration), motivator factors (MF) (advancement, achievement, recognition, and responsibility), and hygiene factors (HF) (working conditions, professional relationships, salary and benefits, management style) that contribute to the interview participants' levels of overall job satisfaction and dissatisfaction.

Sample

Prior to selecting study participants, it is essential to know the characteristics of the proposed sample. Knowing the characteristics of the target population allowed me to select a sample that was representative of the population, met the proposed criteria, and assisted me in answering the research questions (Fraenkel et al., 2016). Using those guidelines, I used purposeful sampling to ensure the sample selected was composed of individuals who represent female Arizona agricultural educator demographics. I personally interviewed four female teachers who had left the teaching profession, four female teachers in years one to ten of teaching experience, and four female teachers with 11-30 years of teaching experience. It is essential to interview female agricultural educators with a wide range of teaching experience

because although “the highest teacher attrition rates occur within the first five years, the profession should also be concerned with the growing number of experienced teachers, specifically mid-career teachers, leaving the profession” (Solomonson & Retallick, 2018, p. 2). To protect their identities and adhere to confidentiality requirements, interview participants were given code names. The interview order and the code names are listed below in Table 4.

Table 4

Interview Participant Coding (n = 12)

Interview Order	Code Name
Participant 1	Maya
Participant 2	Amelia
Participant 3	Jane
Participant 4	Eleanor
Participant 5	Frida
Participant 6	Elizabeth
Participant 7	Marie
Participant 8	Katherine
Participant 9	Gertrude
Participant 10	Sandra
Participant 11	Malala
Participant 12	Ruth

Note. The code names assigned to each participant have no direct connection to the participants’ race, ethnicity, political ideology, or personal interests.

Maya is in her second year of teaching. She taught her first year at a rural school before moving on to a second program in an urban setting. Both schools were single-teacher programs.

Amelia taught at one multi-teacher program in an urban community for eight years before making the decision to leave the profession. Jane has been teaching for five years split between two different programs, the first one rural, the second urban. Both schools were multi-teacher programs. Eleanor has worked at two single teacher programs during her 15 years as an agricultural educator. The first program was urban, and the second was rural. Frida started out her career as an agricultural educator at an rural program for one year before becoming a science teacher for 25 years. In the final four years of her teaching career, she returned to agricultural education at an urban program. Both programs were single teacher programs. She is no longer teaching. Elizabeth came to agricultural education later in life. She is the sole participant to have had a career in retail prior to becoming an agricultural educator. She taught for six years at an urban single teacher program before relocating to another state and leaving the profession.

Marie is in her eleventh year of teaching. She has taught at two programs, both urban. The first school was a multi-teacher program, and her current school is a single teacher program. Katherine taught agricultural education for six years at three different rural programs (multi-teacher, single teacher, multi-teacher). She took another position in agricultural education at the state level and is no longer a secondary agricultural educator. Gertrude has 27 years of experience teaching. She has worked at two different urban single teacher programs. Sandra has been working for eight years at a single teacher rural program. Malala has been working for nine years at an urban multi teacher program. She is also the only participant to be industry certified as opposed to traditionally certified. Ruth has the most years of experience in the profession, having been an agricultural educator for 28 years. She has worked at three different programs, the first two urban and the third rural. Her current school is a multi-teacher program.

Maya, Jane, Sandra, and Malala are in the 1-10 years of teaching experience category, Eleanor, Marie, Gertrude, and Ruth have been teaching 11+ years, and Amelia, Frida, Elizabeth, and Katherine are former agricultural educators who are no longer in the profession. Of the 12 participants, Maya is African American, Marie is Hispanic, and the rest are Caucasian. Maya, Amelia, and Marie are single, Jane, Eleanor, Frida, Elizabeth, Katherine, Gertrude, Sandra, Malala, and Ruth are married or in a committed relationship, and Frida, Elizabeth, Katherine, Gertrude, Malala, and Ruth have children.

In order to gain a finer understanding of the interview participants' background as agricultural educators, they were asked to describe if teaching agriculture was their first career. Eleven of the 12 participants indicated that this was their first career; Elizabeth had a career in retail prior to becoming an agricultural educator. All participants indicated that they attended the University of Arizona and went through their agricultural education teacher preparation program; eleven of them received traditional teacher certifications. However, Malala took a teaching position prior to student teaching, and thus was alternatively certified. Four participants identified that they had only worked at one agricultural program over the course of their career (Amelia, Elizabeth, Sandra, and Malala), six participants were on their second program (Maya, Jane, Eleanor, Frida, Marie, and Gertrude), and two participants had worked at three programs (Katherine and Ruth). Interview participant demographics are displayed below in Table 5.

Table 5*Interview Participant Demographics (n = 12)*

Variable	Descriptor	<i>f</i>	%
Program Type	Single teacher program	5	41.66
	Multi teacher program	3	25.00
	Rural school	3	25.00
	Urban school	5	41.66
	No longer teaching	4	33.33
Agricultural Education Career	First career	11	91.66
	Second career	1	8.33
	Taught at one program	4	33.33
	Taught at two programs	6	50.00
	Taught at three programs	2	16.66
Certification Type	Traditional certification	11	91.66
	Industry certification	1	8.33
Teacher Preparation	Attended the University of Arizona teacher preparation program	12	100.00
Degree Type	Master's degree	12	100.00
Race	African American	1	8.33
	Hispanic	1	8.33
	Caucasian	10	83.33
Marital Status	Single	3	25.00
	Married	8	66.66
	In a relationship	1	8.33

Variable	Descriptor	<i>f</i>	%
Personal Children	Children	6	50.00
	No children	6	50.00

Note. Marital status may have changed since data collection.

Procedures

The qualitative in-depth interviews utilized a semi-structured design to ascertain characteristics of female agricultural educators in Arizona and their perceptions of the job responsibilities that they find most challenging and rewarding (Fraenkel et al., 2016). A series of personal interviews was conducted with a purposeful sample of 12 participants to illuminate participant beliefs on areas of satisfaction and dissatisfaction within their job responsibilities as they relate to the three components of a total agricultural education program: Classroom Instruction, FFA, and Supervised Agricultural Experiences (SAE) (Fraenkel et al., 2016). Interviews were carried out with participants that met the following three eligibility requirements: A) Participants must be current or past female agricultural educators in the state of Arizona; B) Participants must have experience teaching all three components of a total agricultural education program; and C) Participants must have taught for at least one full year in Arizona. I purposefully selected a group of women who represented a diverse picture of female agricultural educators in Arizona such as different ethnicities, years teaching, rural/urban programs, and family structure. These criteria were selected because they represent essential viewpoints and varying levels of leadership and community involvement within the AATA.

Benefits of conducting a personal interview included the ability to establish rapport with the participants and identify responses that could be addressed in the questionnaire (Fraenkel et al., 2016). It also allowed me to collect data without having to worry about participants' reading and writing skill levels. Research was conducted on how to anticipate the needs of the

participants, on proper procedures for engaging in probing questioning techniques, and how to record answers to open and closed ended questions (Fraenkel et al., 2016). It was essential for me to tolerate ambiguity, observe carefully, think inductively, and use imaginative variation to look at the data from different perspectives throughout this process (Fraenkel et al., 2016).

Trustworthiness

I took efforts to establish credibility, transferability, dependability, and confirmability when analyzing the data. Lincoln and Guba (1985) outlined strategies qualitative researchers use to develop trustworthiness. Credibility is best defined as the level of confidence in the researcher and their findings by peers in their professional community. As a female agricultural educator in Arizona, I have 11 years of experience in the profession. To establish transferability, the research participants were purposefully selected for the study based on their meeting of the three predetermined criteria. Dependability was achieved by adhering strictly to the procedures and benchmarks recommended by the research committee. As recommended by Creswell (2013), this included using primarily peer-reviewed, credible resources, strict transcription of the interviews followed by member checking, and following the advice of the committee chairs to ensure all procedures and policies were followed. To accomplish confirmability, I sought to bracket the biases created by my close knowledge and experience of the subject under study. The use of bracketing “is a method used in qualitative research which requires the investigator to put aside their beliefs about the research topic” (Solomonson & Retallick, 2018, p. 7).

Instrumentation

An interview guide is typically a list of the high-level topics that will be discussed in the interview, along with the high-level questions that pertain to each topic (Menziez et al., 2016). An interview guide is usually limited to one page, making it easy to refer to and ensuring that all

questions are asked with the same level of importance. The interview guide can assist with focusing and organizing the interviewer's line of thinking and thus their ability to question effectively (Menzies et al., 2016). The interview guide was created by first developing a list of potential questions that related to the research questions. Questions were then grouped into four sections: positive aspects of teaching agricultural education, negative aspects of teaching agricultural education, the impact of being an agricultural educator on one's personal life, and participant experiences with the AATA New Teacher Mentoring program. The questions were then sent to the committee chairs who assisted with eliminating overlapping questions and narrowing the focus of the research. The interview questions used to guide the qualitative interviews can be viewed in Appendix D.

Data Collection

Participants were contacted via email during the Fall 2020 semester (Appendix B). In the email, the basic premise of the research was explained, and contacts were prompted to respond as to whether they were amenable to participate in an interview, and if so, which dates and times best suited their schedule for an interview. Due to the COVID-19 pandemic, all interviews were conducted via Zoom to account for health concerns. When participants responded back with an interview date, I sent them the Zoom link, an informed consent form to review prior to the interview (Appendix C), and the interview guide (Appendix D) with which to familiarize themselves with the context of the questions. Verbal consent was acquired at the beginning of each interview. All interviews were recorded using Zoom. I also made notes during the interview to record nonverbal cues and expressions. Following the interview, the content was transcribed first using Otter AI and second by myself to account for any technology errors in the transcription. Full transcripts were then emailed back to each participant for member checking

purposes. I requested permission to use the transcript, as presented, in the dissertation process. Once said approval was granted, the transcriptions were ready for analysis. Table 6 below illustrates the timeline for data collection.

Table 6

Qualitative Data Collection Timeline

Date	Procedure
November 18, 2020	Initial contact email
December 4, 2020	Maya interview and transcription
December 5, 2020	Amelia interview and transcription
December 9, 2020	Jane interview and transcription
December 11, 2020	Eleanor interview and transcription
December 12, 2020	Frida interview and transcription
December 16, 2020	Elizabeth interview and transcription
December 18, 2020	Marie interview and transcription
January 8, 2021	Katherine interview and transcription
January 8, 2021	Gertrude interview and transcription
January 10, 2021	Sandra interview and transcription
January 14, 2021	Malala interview and transcription
January 21, 2021	Ruth interview and transcription

Note. Transcripts were sent back to participants for member checking within two weeks of their interview date.

Saturation

This section of the research called for in person interviews of 12 female agricultural educators in Arizona. In qualitative research, reaching saturation is a concern (Faulkner &

Trotter, 2017). Not reaching data saturation can negatively impact the quality of the research because it affects content validity (Faulkner & Trotter, 2017). Small studies, such as this one, usually reach saturation more quickly than larger studies (Faulkner & Trotter, 2017). I knew data saturation was accomplished when I reached the point where there was enough information to replicate the study and no new information or themes were identified in the interviews. In this study, I noticed data saturation begin during Sandra's interview; by Ruth's interview, no new information was given, indicating that saturation had been reached.

Data Analysis

Data from the qualitative interviews underwent open coding to identify common themes and axial coding to examine the core categories for the study (Fraenkel et al., 2016). Following the coding process, axial codes were ranked ordinally for each area of interest based on the total number of mentions of evidence for that particular code. The number of participants who mentioned particular pieces of evidence and the percent that represented of the sample were also calculated.

All participants received the same treatment questions. Qualitative research often yields clustered data; as a result, multilevel modeling using systematic grounded theory was utilized to analyze all data collected in this study (Koziol et al., 2015). Qualitative interview responses have implications for providing in-depth understanding of the core issues and responsibilities that represent the greatest level of challenge to female agricultural educators, resulting in the emergence of common themes across participants. Evaluation of the data accumulated in the interviews was used to construct the quantitative questionnaire.

To accomplish Research Question One, I asked probing questions during the in-person interviews to find out which Classroom Instruction, FFA, and SAE job responsibilities brought

the participants the most joy and caused them the most discomfort. Following all interviews, I compiled a list of the job responsibilities that were identified for causing the greatest and least amount of job satisfaction. The job responsibilities on this list were used to create the survey prompts in which respondents were asked to rank their levels of satisfaction with those job responsibilities.

For Research Question Two, participants were asked to speak about who had initially motivated them to become an agricultural educator, as well as if they participated in any outside agricultural enterprises. This question was deemed important because agricultural enterprises can build feelings of affiliation outside the work environment while still being intertwined with the profession. Participants were questioned on how being a female agricultural educator has/had influenced their personal life and ability to achieve work-life balance. I also inquired if professional relationships and AATA mentorship had influenced the participants' decisions to stay in the profession despite the challenges, or leave considering the challenges. Lastly, participants were asked if they had ever considered leaving the profession, and if so, what supporting structures (or lack thereof) had influenced their decision.

To accomplish Research Question Three, I asked probing questions during the in-person interviews to find out about the participants' experiences in the AATA New Teacher Mentoring Program, either as a mentor or as a mentee. Following all interviews, I compiled a list of the factors that were identified for causing the greatest and least amount of mentoring experience satisfaction. These factors were then used to create the questionnaire prompts in which respondents were asked to rank their levels of satisfaction with the factors given their experience as a mentee or a mentor. Frequencies and percentages were calculated to analyze the qualitative data for Research Questions 1, 2, and 3.

Phase Two

Variables of Interest

For the quantitative portion of the study, the independent variables are degree type, certification type, years of experience, race, marital status, number of children, and AATA experiences. The dependent variables of interest were the level of satisfaction felt by female agricultural educators in their Classroom Instruction, FFA, and SAE job responsibilities given the presence of the independent variable conditions.

Population

The population of those who responded to the questionnaire, based on current 2020-2021 AATA directory numbers, was 58 female agricultural educators in Arizona ($N = 58$) (AATA, 2020). The current Arizona Agricultural Education Directory 2020-2021 was obtained from the Arizona Association FFA website (<http://www.azffa.org/downloads>) to account for frame error within this study. Each academic year, the AATA and Arizona Association FFA review and update the frame to ensure that there are no duplications and that all teaching positions are current. A census of the Arizona secondary agricultural educators was manageable due to the small population size ($N = 58$) and the frame being readily available from the Arizona Association FFA website. Respondent demographics are displayed below in Table 7.

Table 7

Demographic Characteristics of Female Secondary Agricultural Educators in Arizona (n = 30)

Variable	Descriptor	<i>f</i>	%
Age	20-29 years old	14	46.66
	30-39 years old	8	26.66
	40-49 years old	7	23.33
	50+ years old	1	3.33
Years of Experience	1-5 years	14	46.66
	6-10 years	5	16.66
	11-15 years	4	13.33
	16-20 years	5	16.66
	26-30 years	2	6.66
Degree Type	Bachelor's Degree	14	46.66
	Master's Degree	16	53.33
Teaching Preparation Background	I attended and graduated from the University of Arizona Agricultural Education Teacher Preparation program	22	73.33
	I attended and graduated from an Agricultural Education Teacher Preparation program from another university	3	10.00
	I am alternatively certified	3	10.00
	Other	2	6.66

Procedures

Following Phase One, I compiled a list of all the Classroom Instruction, FFA, and SAE job responsibilities given by the interview participants as evidence of them finding satisfaction or dissatisfaction in their job. A second list, also informed by the interview participants, was compiled of the AATA New Teacher Mentoring Program experience factors; this list was further broken down into mentor experience factors and mentee experience factors. Lastly, I compiled a list of the demographic personal and professional characteristics I wanted to collect through the questionnaire. Taking these three lists (Classroom Instruction, FFA, SAE job responsibilities; AATA experience factors; demographic personal and professional characteristics), I created the questionnaire using Qualtrics.

Validity

In this study, face validity and content validity of the instrument were determined by utilizing a panel of experts of two individuals (the research committee chairs) who have a knowledge base in agricultural education. The purpose of face validity in research design is to examine the instrument to determine if it is valid for the intended use (Ary et al., 2010). Ary et al. (2002) acknowledges that establishing face validity is an important factor in gaining completed responses from the study population that are authentic. Content validity also has an important role and is defined as the degree to which each questionnaire item measures what it portrays to measure (Ary et al., 2010). The panel of experts reviewed each area of the questionnaire for face and content validity. After each area of the questionnaire was reviewed, each member of the panel was asked to provide feedback. Once all panel members completed reviewing the question, modifications were made based off of their advice.

Reliability

Ary et al. defines reliability as “the degree of consistency with which [the instrument] measures whatever it is measuring” (2010, p. 236). It is vital to determine reliability when utilizing an instrument to collect data as it is possible an instrument can be “reliable without being valid, but it cannot be valid unless it is first reliable” (Ary et al., 2010, p. 239). Developing a reliable instrument is not without its challenges; the researcher must be proactive in establishing and improving reliability whenever possible (Saucier, 2010). Reliability in this study was achieved by conducting a pilot study of female agricultural educators who were not in the study population, such as those from another state association. Pilot studies serve as an opportunity to trial-run the instrument with individuals who are demographically like the study population to assess its suitability and practicability (Ary et al., 2010). Those selected for the pilot study completed the questionnaire, and the reliability of the instrument was determined based on a Cronbach’s alpha analysis of their answers.

Pilot Test. Before the online questionnaire was sent to the study population, a pilot study was conducted using a group ($n = 8$) composed of female agricultural educators from New Mexico. Individuals were sent a participation request with the research study purpose and instructions. The FFA job responsibility items of the pilot study survey were reverse coded to establish reliability. To determine the reliability coefficient, a post-hoc analysis was used. Field (2017) recommends that a Cronbach’s alpha level of .7 is a suitable cut-off point for ability tests. The pilot study reliability results for the 58 Classroom Instruction, FFA, and SAE satisfaction items are displayed below in Table 8.

Table 8*Cronbach's α for Pilot Questionnaire (n = 8)*

Area	Number of Items	Cronbach's α
Classroom Instruction	19	.936
FFA	25	.924
SAE	14	.927

Instrumentation

The results of the themes that emerged from the qualitative interviews were used to inform entries in the questionnaire, which was designed to explore the internal and external factors that influence long-term teacher retention. Survey questions were validated via peer editing and industry experts to ascertain that the questions accurately pertained to the gender-specific and gender-neutral themes, motivator and hygiene factors, and agricultural education, and that they accurately answered the research questions. The questionnaire was then delivered to all female agricultural educators in Arizona. It utilized a Likert-type scale for participants to rank their satisfaction levels on various aspects of their career responsibilities. A comment option was included to elicit clarifications and additional narrative factors.

In this study, questions were used to rate the satisfaction and dissatisfaction of respondents by asking them multi-point questions that had polar opposite adjectives at either end of the scale (QuestionPro, 2020). The questionnaire was formatted as a non-slider rating scale; this is the most traditional method of asking questions as it uses radio buttons. Respondents selected the button that they felt best matched their level of satisfaction or dissatisfaction. This format was selected as opposed to slider rating scales or ordering scales because it is the format that most people are familiar with and comfortable with using (QuestionPro, 2020). There were

also several open-ended questions for respondents to provide greater detail to certain topics. Open-ended questions give the respondent the opportunity to express their emotions regarding their experiences (QuestionPro, 2020). The questionnaire was scored using a summated rating scale, as is commonly used in Likert-type scales (Spector, 1992). The questionnaire instrument can be viewed in Appendix E.

Data Collection

Participants were contacted via email during the Spring 2021 semester with a link to the online questionnaire via Qualtrics. Efforts were made by the researcher to contact non-respondents to encourage a high response rate. Shinn et al. (2007) found that response rate frequencies tend to be higher on Tuesdays and Wednesdays; the researcher made efforts to keep that in consideration when contacting non-respondents. The data revealed by the research were analyzed using the Statistical Package for the Social Sciences (SPSS) v. 25 and Excel.

The study population was contacted seven times utilizing Dillman's Tailored Design Method for Mail and Internet Surveys (Dillman, 2007). The pre-notice email was sent out notifying individuals that they had been identified as a female Arizona secondary agricultural educator and were being asked to complete the questionnaire they would be receiving in the next few days. In the email, teachers were informed that the research study was intended to assess the demographics of female Arizona agricultural educators and their perceived satisfaction and dissatisfaction with job responsibilities relating to Classroom Instruction, FFA, and SAE, and to expect additional detailed information in the next few days. A copy of the Pre-Notice email can be found in Appendix F.

Following the pre-service email, the research study cover letter (Appendix G) was sent out via Qualtrics and followed by an initial contact email (Appendix H) with the link to the

questionnaire. The cover letter outlined the incentivization for fast responses. Respondents who completed the questionnaire quickly had more chances to be entered into a drawing to win a \$100 Amazon gift card. Reminder emails were sent (Appendix I, J, and K) to individuals who did not have a completed response by the specified date. A final email notification (Appendix L) was sent out to all non-respondents with intent to collect any final responses. Given health conditions due to the COVID-19 pandemic, all communication was carried out via email; there were no paper copies of the questionnaire collected. Non-response error was not a concern due to the nature of this study. The results are only generalizable to the population that responded to the questionnaire because it was conducted as a census of female agricultural educators in Arizona. Table 9 below illustrates the timeline for data collection.

Table 9

Quantitative Data Collection Timeline

Date	Procedure
March 31, 2021	Email pre-notice (Appendix F)
April 6, 2021	Email cover letter (Appendix G)
April 8, 2021	Email Qualtrics link and instructions (Appendix H)
April 14, 2021	Email first reminder, web link, and instructions (Appendix I)
April 21, 2021	Email second reminder, web link, and instructions (Appendix J)
April 28, 2021	Email final reminder, web link, and instructions (Appendix K)
April 30, 2021	Email late/non responder reminder, web link, and instructions (Appendix L)

Note. Emails were sent on Tuesdays, Wednesdays, and Thursdays mid-morning (10 am) to encourage a high response rate.

Response Rate

The questionnaire was distributed to all 58 female agricultural educators in Arizona. Of those 58, 30 individuals responded, leading to a 51.72% response rate ($n = 30$). Research that obtains less than a 100% response rate raises scrutiny that the resulting data does not accurately represent the population under study, bringing up concerns of perceived believability, the need to look at subgroups, the need to evaluate for bias, and the need to ensure demographic representativeness. Holbrook et al. (2005) evaluated if lower response rates are correlated with lower sample demographic representation. Interestingly, when analyzing the results of 81 national surveys which ranged in response rate from 5% to 54%, the study found that although lower response rates resulted in decreased demographic representativeness, the difference was not significantly different than the demographic representativeness of studies with higher response rates (Holbrook et al., 2005). A study by Visser et al. (1996) revealed that surveys with lower response rates can yield more accurate results than those with higher response rates. Another study by Keeter et al. (2006) analyzed the results of a 5-day survey that yielded a 25% response rate with results from a survey with a longer response time that yielded a 50% response rate. In 91.66% of the comparisons, the two surveys' results were statistically indistinguishable (Keeter et al., 2006). Efforts were made to contact non-respondents via email, however, none responded. Ultimately, non-response error was not a concern as this study was conducted as a census and the results are only generalizable to the population that responded to the questionnaire.

Data Analysis

Following data collection using Qualtrics, Microsoft Excel and SPSS v. 25 were used to analyze the data. Descriptive statistics (means, standards deviations, and percentages) were

calculated to analyze the quantitative data for Research Questions 1, 3, and 4. To accomplish Research Question 4, data were collected on demographic characteristics (degree type (Bachelor's or Master's), certification type (traditional or industry), years of experience, race, marital status, and the presence of children). Data were then analyzed using SPSS to calculate ranked satisfaction levels (utilizing *M* and *SD*) between the demographic information and the Classroom Instruction, FFA, and SAE job responsibilities.

Research Goals

Data from the qualitative and quantitative portions of this research project were analyzed to determine the job responsibilities that caused the greatest levels of female agricultural educator satisfaction and dissatisfaction. The results can be utilized to suggest methods for the creation of a support/improvement plan to alleviate some of the identified challenges. Such a plan could drive the formation of a new Female Agricultural Teacher Support Committee within the AATA; information can also be integrated into the current agricultural teacher preparation program at the University of Arizona, as well as alternative certification programs, to better prepare prospective female agricultural educators for the challenges they will face in the field.

Ethical Considerations

Of great concern are the ethical considerations that come with human subject research. To account for this issue, I followed the principles outlined by the Committee on Scientific and Professional Ethics of the American Psychological Association to ensure informed consent and protection of the participants and obtained IRB approval (Appendix A). Research conducted with human participants necessitates that all data be collected with the utmost respect and attention towards the confidentiality, and physical and emotional wellbeing of the participants (Fraenkel et al., 2016). Candid conversations were undertaken with each participant to ensure that each of

them understood their responsibility to the study prior to their participation, and that they could withdraw at any time without fear of penalty. Following data collection, I provided participants with full interview transcripts and detailed information as to the true nature of the study, as well as to clarify any misconstructions that may have arisen over the course of the study (Fraenkel et al., 2016).

Institutional Framework

The lead researcher, Miraj Wallace (myself), is a candidate in the Doc@Distance joint doctoral program with Texas A&M (TAMU) and Texas Tech (TTU) Universities. I worked under the mentorship of my committee chair from Texas A&M, Dr. John Elliot, and co-chair from Texas Tech, Dr. Courtney Meyers. Dr. Chanda Elbert (TAMU) and Dr. Scott Burris (TTU) completed the committee members. I also worked with the State FFA Secretary, Mrs. Bethany Matos, the AATA President, Mr. James Kaltenbach, and department representatives from the College of Agriculture and Life Sciences at the University of Arizona to acquire contact and demographic information that led to the successful selection of the proposed sample and population for both the qualitative interviews and quantitative questionnaire.

Research Budget

The budget for this research project was minimal. Given the COVID-19 pandemic, travelling to conduct interviews for data collection was prohibited. To encourage a high response rate, respondents to the questionnaire were entered into a drawing to win a \$100.00 gift card, the largest research expense. Lastly, with the method of contact and the questionnaire being delivered online through Qualtrics, the costs and time needed to conduct the study were considerably reduced.

Generalizations

Because this study focused solely on the Classroom Instruction, FFA, and SAE responsibilities that are related to job satisfaction of female agricultural educators in Arizona, the results may not be generalized beyond the population. However, data from demographics, job responsibilities, and challenges faced by female agricultural educators in Arizona may be similar to those found in other states in the region. As a result, cautious generalizations may contribute to future research outside the scope of Arizona.

Summary

Through this study, I sought to investigate if early recognition of the sources of job satisfaction/dissatisfaction experienced by female agricultural educators in Arizona may be effective in increasing retention rates of female agricultural educators by identifying strategies that will promote self-efficacy and reduce teacher burnout (Kumar & Tripathi, 2014). A resilient Arizona agricultural educator community is better positioned to maintain the long-term stability of its teachers because it has proactively invested in itself. The resulting vitality bolsters the learning community's social capital, starting in the education sector. Learning communities benefit when their members are equipped with the skills necessary to personally prosper and grow professionally. Strong support to mitigate the challenges faced by female educators in this profession that express both a recognition of these issues and a valuing of female teacher efforts despite these issues can positively impact agricultural education communities like the AATA to become vibrant and resilient, thus strengthening their social capital. Results of this research have further implications for other agricultural education communities and associations in other states to identify the job responsibilities that contribute to job satisfaction, reduce female teacher burnout, and increase retention rates.

CHAPTER IV
FINDINGS AND RESULTS

Purpose of the Study

The purpose of this applied action research was to identify factors that contribute to job satisfaction of female secondary agricultural educators in Arizona. The information acquired through this research may aid in developing a framework for an improvement plan to create a teacher support system as part of a new or existing committee within the AATA. There are also implications to use the findings in the University of Arizona's agricultural education teacher preparation program.

Research Questions

The following research questions were developed to guide this study:

1. Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?
2. What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?
3. Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?
4. Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?

Phase One

Research Question One: Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?

To gain a finer understanding of what motivated the interview participants, they were first asked to describe how they came to be agricultural educators. There were many factors that motivated the participants to become involved in agricultural education. Ten participants (all except Elizabeth and Sandra) stated that it was their high school experiences in an agricultural education program that helped them develop their passion for teaching, especially the fact that every day was a new learning experience with different material. In speaking about her high school agricultural educator, Marie said,

She was a great influence in my life, and once I started high school I kind of came up with the idea that I think I want to do what she does on a daily basis because everything was different every day and she seemed to really enjoy her job. And it really kind of instilled a passion in me for agriculture and so it was definitely my high school agriculture teacher. (M. Curie, Zoom interview, December 18, 2020)

Katherine also commented that the belief of her agricultural educator made her consider that career early on in high school:

He like saw something in me that I didn't see in myself, and encouraged me to get involved. So by the end of the freshman year, I knew that that's what I wanted to do was be an ag. teacher like him. (K. Switzer, Zoom interview, January 8, 2021)

Participating in FFA and CDEs was identified by Maya, Katherine, and Marie as one of the leading reasons they wanted to become an agricultural educator. Junior and senior year were viewed as pivotal years in their decision to become an agricultural educator by Maya, Jane, and

Eleanor, Maya, Katherine, Gertrude, and Malala stated that their experiences as FFA State Officers helped them realize that they loved being in the classroom and working with students.

Interactions with multiple agricultural educators was another factor that aided their decision to become teachers themselves. Some of these interactions were positive, and some were negative, but all helped the participants understand the type of teacher they wanted to be and the type of program they wanted to grow. When asked what the support of multiple agricultural educators from multiple programs meant to her, Maya stated,

So the whole entire thing, um you know, it takes a village to raise a child type of thing.

Well, it takes a lot of FFA advisors to raise a single FFA member [...] Thinking about all those experiences, all of those people who were willing to give their time and their energy to me...even though I didn't attend their school, I wasn't a part of their chapter, but they still wanted to be a part of my success. (M. Angelou, Zoom interview, December 4, 2020)

Four participants (Maya, Eleanor, Jane, and Frida) indicated that although they enjoyed their agricultural education experiences in high school, they were torn between pursuing a degree in Veterinary Science or a degree in Agricultural Education. Malala got a bachelor's degree in Agribusiness before pursuing a master's in Agricultural Education; she expressed a desire to have a backup degree just in case she decided teaching was not for her:

Thinking into like having kids and all those types of things like, is that something I could still do...would I look into something part time in the business world, you know? So I just wanted to have like a variety of options. (M. Yousafzai, Zoom interview, January 14, 2021)

Other deciding factors that influenced their decisions to become agricultural educators included being recruited by U of A professors, speaking to a friend who was an Agricultural Education major, high school 4-H experiences, their children's high school agricultural education experiences, and having an animal science background. Of the 12 participants interviewed, only Amelia indicated that she was unaware that agricultural education was a career option until college.

Participants were also asked if their passion for agriculture extended beyond the classroom in the form of personal agricultural enterprises. Seven participants (Maya, Eleanor, Elizabeth, Gertrude, Sandra, Malala, and Ruth) indicated that they were involved in some kind of agricultural enterprise, specifically in the animal industry (small stock, cattle, goats, horses, poultry, and reptiles). Growing hay, managing a greenhouse, making goat's milk soap, and volunteering for 4-H were also listed. Five participants (Amelia, Jane, Frida, Marie, and Katherine) indicated that they did not have any outside agricultural enterprises, citing lack of time as the main limiting factor in this decision.

Participants were then asked what they perceived as the joys of being an agricultural educator. Nine participants (Maya, Amelia, Jane, Eleanor, Elizabeth, Marie, Katherine, Sandra, and Malala) identified their positive experiences with students as the driving force behind what brought them the most joy in their job (PR). Creating a good classroom culture in which all students feel included is one way to show students how to turn their passion into reality (RES). This is especially important for non-traditional students that come from rural areas and low socioeconomic conditions (ADV). Frida stated,

There were a lot of kids that, you know, didn't fit in. And it gave them a group to belong to. And it gave them people who were interested in the same things they were, and so that

made me happy to watch outsiders be able to fit in. (F. Kahlo, Zoom interview, December 12, 2020)

Engaging students in activities that challenge them and help them overcome their fears (RES) was also noted as a source of joy for the participants, as was giving instruction on farm-to-table (RES) and teaching students relevant skills and practical projects they could apply to future careers (ADV). Jane noted,

I also enjoy having students reach their goals, short term, long term, helping them succeed and seeing them succeed. And knowing like I was a part of that, no matter how big or small, is really satisfying to me. (J. Goodall, Zoom interview, December 9, 2020)

FFA was listed as another positive force in the lives of agricultural educators. Five participants (Maya, Frida, Elizabeth, Marie, and Katherine) said that they enjoyed engaging their students in CDEs (RES). When asked how seeing her students compete in CDEs brought her joy, Marie indicated,

When they do well and they're able to go on stage, that's sometimes the only time that they'll ever like get an award or be recognized like that. And so those, those little things, getting to see my students be successful [are what bring me joy]. (M. Curie, Zoom interview, December 18, 2020)

Elizabeth noted that she feels she lives vicariously through her students' successes in CDEs. This factor is enhanced by the fact that agricultural education programs give agricultural educators the opportunity to work with the same students over the course of four years. The extra time with students allows agricultural educators to help students reach their goals and formulate a professional relationship that extends beyond their graduation (PR). In speaking about the relationships she was able to build with her students, Amelia said,

And I really do think that that's one of the biggest assets and one of the biggest things that I loved about teaching is that it didn't just stop once they were out of my class, that I actually did get to know them as people. (A. Earhart, Zoom interview, December 5, 2020)

Building relationships with parents was also seen as having a positive influence on the participants' perceptions of happiness in their job (PR).

Lastly, networking and communicating with fellow agricultural educators was noted as having a positive impact in the participants' lives (PR). Gertrude stated,

I know if there was ever a question I could call up, you know, 100 schools in Arizona and get different perspectives on it, and I think that's pretty cool because I don't have those kinds of relationships even on my own campus...not nearly as strong as what I have across the state (G. Ederle, Zoom interview, January 8, 2021).

Having others in their same position to commiserate with, lean on in times of need, and compete against brought an element of joy that allowed those interviewed to get through the difficult times in their lives (PR). The identified general sources of satisfaction and their codes are presented below in descending order in Table 10.

Table 10*Female Agricultural Educator Job Satisfaction Sources (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	PR	Positive experiences with students	9	75.00
		Talking to fellow ag. teachers	4	33.33
		Parental relationships	1	8.33
2	RES	Engaging students	3	25.00
		Teaching farm to table	2	16.66
		Teaching self-motivation	1	8.33
		Creating a good classroom culture	1	8.33
		Practical student projects	1	8.33
		Teaching new skills	1	8.33
		Helping students overcome their fears	1	8.33
		Making program self-sustaining	1	8.33
3	ACH	CDEs	5	41.66
		Challenging students	2	16.66
		Competition	1	8.33
3	ADV	Helping students reach their goals/mature	4	33.33
		Giving low socioeconomic students opportunities	1	8.33
		Giving rural students opportunities	1	8.33
		Curriculum transcended and applied to real life	1	8.33
		Showing students how to turn passion into reality	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

A total agricultural education program is comprised of three essential components: Classroom Instruction, FFA, and SAE. Each of those components comes with its own duties and responsibilities. To ascertain which job responsibilities contribute to female agricultural educators' levels of job satisfaction, participants were first asked to expand upon which Classroom Instruction job responsibilities they most enjoy. Seven of the participants (Maya, Jane, Eleanor, Frida, Marie, Elizabeth, and Sandra) identified that planning and conducting hands on lessons was the highlight of their Classroom Instruction responsibilities (RES). This allowed them to better differentiate instruction and build connections with non-traditional agricultural students (those with no agricultural background, and those students with IEP or 504 plans) (RES). There were a number of ways the participants worked to engage student interactions in the classroom. These included sharing stories and experiences, bringing in hands on lesson realia or animals, and acting out scenarios in class (RES). Even though an element of fun was present in each of the identified methods, there was a strong underlying goal of making sure that all lessons were practical and that they reflected current practices or areas of interest in the agricultural industry (RES). The aspect of relevance was seen as enhancing the relationship aspect between the student and the presented material (ADV).

Other activities the participants said they enjoyed in relation to Classroom Instruction included lesson planning, grading, creating new hands-on labs, and the physical act of teaching (RES). Participants also stated that they like having autonomy in making decisions of the manner in which curriculum would be presented (SE), as well as the idea that there was immediate and

visible curriculum value (ADV). Frida stated, “I loved that about the ag. ed. program, that you did hands-on stuff all the time...and practical, it was practical, so the kids saw the value in it immediately” (F. Kahlo, Zoom interview, December 12, 2020). Learning from mistakes (SE), sharing ideas with fellow agricultural educators (PR), and having administration who were supportive of the decisions they made in Classroom Instruction (PR) were also viewed as positive aspects of the job. The identified Classroom Instruction job responsibilities and their codes are presented below in descending order in Table 11.

Table 11*Classroom Instruction Job Responsibility Satisfaction Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	RES	Hands on lessons	7	58.33
		Building connections with non-traditional ag. students (no ag. experience, IEP and 504 students)	3	25.00
		Student interactions	2	16.66
		Bringing in realia	1	8.33
		Lesson planning	1	8.33
		The act of teaching	1	8.33
		Grading	1	8.33
		Facilitating student relationships	1	8.33
		Creating new labs	1	8.33
		Teaching with animals	1	8.33
2	ADV	Lessons that are current and relevant	1	8.33
		Practical	1	8.33
		Immediate curriculum value	1	8.33
3	PR	Sharing ideas with fellow ag. teachers	1	8.33
		Supportive administration	1	8.33
3	SE	Curriculum autonomy	1	8.33
		Learning from mistakes	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

The participants indicated that their FFA responsibilities also brought them a lot of joy. Coaching and being involved in CDEs and LDEs (RES) were a favorite responsibility of seven of those interviewed (Maya, Amelia, Jane, Eleanor, Frida, Marie, and Elizabeth), followed closely by travelling to FFA events (RES). Taking students to FFA events was essential to facilitating one-on-one interactions with students (PR), challenging them to think outside their comfort zone and learn study strategies (ADV), and helping students see the relevance of the competitions to real life by having them practice career skills (ADV). Marie stated, “For me, the FFA part, is seeing them be successful. Not about like getting an award, but like that they’ve grown as an FFA member. For me, that’s my favorite part” (M. Curie, Zoom interview, December 18, 2020). Being the FFA Advisor was made more enjoyable by being able to see students influence each other positively and bond as a team (RES, PR). Helping students make personal accomplishments in the areas of leadership, public speaking, and parliamentary procedure were also identified as highlights of the job (ACH).

Working with chapter officers was another source of joy (RES). Maya and Katherine mentioned that their state officer background better enabled them to train strong officer teams that were service oriented and worked together as a chapter. Other areas where the participants indicated they felt joy were attending FFA conferences and livestock events, and conducting community service activities (RES). Sandra identified that she disliked the FFA component the most out of the three components, saying that she found more joy in Classroom Instruction and SAE than in FFA. The identified FFA job responsibilities and their codes are presented below in descending order in Table 12.

Table 12*FFA Job Responsibility Satisfaction Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	RES	Chapter officers	3	25.00
		One-on-one interactions with students	2	16.66
		Livestock	2	16.66
		Community service	1	8.33
		Study strategies	1	8.33
		Teaching your chapter to work together	1	8.33
		See students influence each other positively	1	8.33
		CDE team bonding	1	8.33
		Leadership portion	1	8.33
		Public speaking	1	8.33
		Parliamentary procedure	1	8.33
		Being an FFA Advisor	1	8.33
2	ACH	CDEs and LDEs	7	58.33
		Relevance of competitions to real life	1	8.33
		Coaching CDEs	1	8.33
3	PR	Travelling to FFA events	6	50.00
		Conferences	2	16.66
4	ADV	Job skills	2	16.66
		Challenging students	2	16.66
		Seeing students achieve/progress	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

Participants were also able to find joy in their SAE job responsibilities. Four of the agricultural educators interviewed (Maya, Eleanor, Elizabeth, and Gertrude) said that their favorite part about SAE is discovering student interests through home visits (RES). In speaking about SAEs, Maya said,

I think [SAE] definitely creates a lot of trust and builds a relationship with the student in the sense that, you know, they're able to come to you and ask you questions about what they are interested in and passionate about. (M. Angelou, Zoom interview, December 4, 2020)

Home visits were seen as an essential component in helping students identify SAE resources (RES), building trust with students (PR), and showing investment in the students as their teacher (PR). Meeting with parents during these home visits also decreased the likelihood of disciplinary issues within the classroom (PR).

Jane and Marie said that they found joy in helping students think outside the box to come up with ideas for their SAEs (RES). Marie commented,

But like this year, obviously with COVID things are different, and so I said think outside the box, let's think about something you can do at home, under any circumstance. And so, I was trying to tell about, you know, apply for the SAE Grant, let's think of something different. So, I had kids do, they're doing worms, raising worms at home for chickens; they can't have a chicken at home but they can raise worms I guess in their house. Their moms are really happy about it. (laughs) Worms and crickets, and then I have another kid

raising cockroaches. That mom hates me right now! (laughs) But like thinking outside the box, something they can still do. (M. Curie, Zoom interview, December 18, 2020)

Record keeping and helping students apply for SAE awards (RES) were also enjoyable as they gave the participants an opportunity to see students progress with their SAEs (ACH). Other aspects that participants perceived as bringing them joy were the hands-on aspect of SAE (RES), enlisting experts to support SAE projects (PR), learning with students as they explored new SAEs, and teaching students job skills (RES). Amelia and Sandra indicated that SAE was their weakest of the three components and that they found little to no joy in their SAE job responsibilities. The identified SAE job responsibilities and their codes are presented below in descending order in Table 13.

Table 13*SAE Job Responsibility Satisfaction Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	RES	Discovering student interests	4	33.33
		Home visits	4	33.33
		Discovering student resources	3	25.00
		Hands on	3	25.00
		Helping students come up with ideas (think outside the box)	2	16.66
		Record keeping	2	16.66
		Teaching job skills	1	8.33
2	ACH	SAE awards	2	16.66
		Helping students progress with their SAEs	1	8.33
3	PR	Enlisting experts	1	8.33
		Meet parents	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

Participants were then asked to describe the challenges they had faced in general during their years of teaching. Having unsupportive administration (PR) was one of the challenges at the top of the list, followed closely by unsupportive parents (PR). Participants stated that they felt like they constantly had to prove what the program is worth (SE) to those two groups. Malala noted that this challenge is exacerbated by changes in administration (PR), especially when the new administrators view CTE programs as less important than core classes. Malala and Gertrude felt that there is unequal attention paid to agricultural education when compared to other

programs (WC). Gertrude explained, “I just feel like ag. ed. is one of those very unique things to so many schools, that it’s a constant education for them to help them buy in and see the benefits of the program” (G. Ederle, Zoom interview, January 8, 2021). Failure for administrators to see the value in agricultural education programs increases the likelihood of these programs becoming “dumping grounds” for students who do not want to be in school (WC). Katherine identified that this led to overwhelmingly large class sizes, discipline issues, and an increase in disrespectful student language directed towards her as the teacher (WC).

Within the communities they taught, Maya, Amelia, Jane, and Gertrude indicated that working in low socioeconomic conditions could be a challenge (WC). Coming into new communities as an outsider (SI), especially small rural communities, led to feelings of having to prove oneself (SE) and their level of commitment (CL) to the location. Maya noted the additional pressure of fitting into the racial demographics of the community in which she taught. As an African American female in a small predominantly Caucasian community, she felt the need to prove herself even more (SE), both because of her gender and her race (VTP).

Within the Arizona agricultural educator community, Amelia, Sandra, and Elizabeth noted that they felt like outsiders from what they termed the “Good Old Boys Club,” especially if they came into agricultural education as an outsider having never been involved in agriculture or FFA prior to teaching (PR, SI). Feelings of constantly having to earn respect or prove oneself to other agricultural educators (SE) was reported by Amelia and Sandra, as was feeling unable to share their work struggles with fellow agricultural educators out of concern of being a burden or seen as being incompetent (SE, PR). Amelia stated,

I was consistently having to feel like I had to combat the idea that I didn't grow up in agriculture and I had to earn people's respect in a different way...and no matter how hard I worked, it didn't work. (A. Earhart, Zoom interview, December 5, 2020)

Sandra noted that it was a struggle not to compare herself to other teachers or other programs (SE, PR), saying,

Every program is different, and it's really hard to learn in teaching, in teaching ag., what those differences are, and figuring out who to compare yourself to and who to not compare yourself to. You can't compare yourself to everyone. (S. D. O'Connor, Zoom interview, January 10, 2021)

Challenges were also identified in being in a multi teacher program as opposed to a single teacher program (WC). Amelia stated that she felt unsupported by her co-teacher, and that eventually the feelings of competitiveness drove a wedge between their relationship (PR). Jane spoke of wanting someone there on her team who could empathize with her as opposed to making her feel incapable as an agricultural educator (SE, PR).

Other challenges identified by the participants included paperwork (RES), FFA (RES), attending county fairs and subsequent issues with livestock (RES), and overall feelings of not being paid for all the extra time they invested into their programs (SB). In regard to not being compensated for her time, Frida explained, "You got paid a little bit extra, but not two teachers worth. Which, I feel like you were two teachers worth, putting in two teachers worth anyway" (F. Kahlo, Zoom interview, December 12, 2020). Jane noted that she felt discriminated against because of her youth (VTP). Being able to fulfill different students' interests (RES), finding experts to train CDE teams (RES), incorporating differentiated instruction for IEP students into

their curriculum (RES), and dealing with chapter officer issues (RES) rounded out the list of items the participants found challenging.

As a result of these challenges, three teachers reported feelings of burnout (BNT), feeling overwhelmed (BNT, RES), or feeling like they experienced an overload of responsibilities (RES). Jane reported that there were not enough hours in the day to fully handle the workload, and so she felt like she had to pick and choose among her numerous priorities (WLB), stating,

Sometimes I just, I feel like it's too much. And as much as I love it, it's...I still have a personal life, and like I don't want to feel like I'm neglecting my personal life for...even though I love it, it's still a job, it's still a career. So, at some point, it has to um take the back burner for a while. (J. Goodall, Zoom interview, December 9, 2020)

Another two participants (Eleanor and Elizabeth) stated that they struggled with achieving work-life balance or finding the time to pursue personal goals (WLB). Eleanor, who works at a small rural school, said that she felt pressure from wearing “too many hats” in taking on administrative responsibilities in addition to teaching (WC, RES). The identified challenges and their codes are presented below in descending order in Table 14.

Table 14*Female Agricultural Educator Job Dissatisfaction Sources (n = 12)*

Rank	Code	Evidence	f	%
1	PR	Parents	5	41.66
		Unsupportive administration	5	41.66
		Good old boys club	3	25.00
		Single teacher vs. multi teacher programs	2	16.66
		Earn respect/prove oneself to other ag. teachers	2	16.66
		Wanting someone else there on your team	1	8.33
		Unsupportive co teacher	1	8.33
		Competitiveness	1	8.33
		Finding experts to train CDE teams	1	8.33
		Feeling unable to share struggles with fellow ag. teachers	1	8.33
		Changing administration	1	8.33
		Comparing yourself to everyone	1	8.33
2	WC	Unequal attention to ag. compared to other programs	2	16.66
		Wearing many hats	1	8.33
		“Dumping ground” for students	1	8.33
		Disciplinary issues	1	8.33
		IEP students	1	8.33
		Viewed as not as important	1	8.33
		Low socioeconomic conditions	1	8.33
		Workload	1	8.33
		Class sizes	1	8.33

Rank	Code	Evidence	<i>f</i>	%
3	RES	Paperwork	2	16.66
		County fair	1	8.33
		Overload of responsibilities	1	8.33
		Feeling overwhelmed	1	8.33
		Fulfilling different students' interests	1	8.33
		Livestock	1	8.33
		Officers	1	8.33
		FFA	1	8.33
4	WLB	Work-life balance	2	16.66
		Finding the time to pursue personal goals	1	8.33
		Not enough hours in the day	1	8.33
4	SE	Proving what the program is/worth	4	33.33
5	VTP	Racial demographics of communities you teach	1	8.33
		Discrimination against young teachers	1	8.33
		Coming into ag. ed. as an outsider	1	8.33
5	BNT	Burnout	3	25.00
6	SI	Small communities	1	8.33
		Coming into new communities as an outsider	1	8.33
7	GB	Gender and race	1	8.33
7	CL	Time commitments	1	8.33
7	SB	Pay	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

When asked how the COVID-19 pandemic has affected them as an agricultural educator, participants identified many new challenges. Maya, Jane, Eleanor, Marie, and Malala identified that excessive student absences made it difficult for their instruction to remain consistent (WC). Another five (Eleanor, Marie, Gertrude, Sandra, and Malala) stated that district and state grading policies such as not giving students letter grades or passing students who had not turned in work made it hard for them to hold students accountable for their work (WC, MS). Unsurprisingly, students not turning in assignments was noted as another major challenge (WC). Parents who were upset about their students' grades or their lack of progress (PR) were also seen as being a trial by Maya, Eleanor, and Malala.

While Maya and Marie expressed feeling comfortable with online learning platforms (WC), becoming familiar with new technology and learning platforms (WC) was identified as stressful for Jane, Sandra, and Ruth, as was trying to make virtual interactions fun because of the difficulty in executing hands on activities (RES). Dealing with cohort teaching (different groups of students attending school on different days) (WC), and hybrid teaching (simultaneously teaching both in person and online students synchronously) (WC) were also seen as a challenge. Some districts shortened their class periods or limited the number of days per week that teachers had access to meet with students (WC). The lack of consistency as school districts moved back and forth between virtual and in person learning made the participants feel an overall lack of consistency that made it difficult to plan lessons, many of which had to be planned and submitted to their administrators many weeks in advance of their actual delivery (WC). As a result, participants noted that they had to become good at multitasking, being prepared but flexible, and lowering their expectations to match the guidelines issued to them by their districts (WC, MS). In speaking about her current lesson delivery, Jane said, "It's not truly hands on. I don't want to

say I've given up on that at this point, but I've definitely lowered expectations to be like, we can only do what we can do" (J. Goodall, Zoom interview, December 9, 2020).

Participants also identified that the COVID-19 pandemic had a major mental/emotional impact on both themselves and their students (BNT). Losing people in their schools and communities to COVID-19 led to feelings of depression and sadness (BNT). Malala noted an increased number of dropouts from students in her program (WC). Eleanor, Marie, and Gertrude lamented the fact that they were not able to experience in person connections with their fellow teachers (PR), and thus found it difficult to self-motivate themselves (CL). Sandra stated that working from home produced feelings of boredom (CL). Eleanor expressed fear of the danger of returning to in person instruction (WC).

The socioeconomic status of students often created a lack of student access to technology during the pandemic (WC). Marie explained,

I have a lot of students that don't have their own phone, they share a family phone or they don't, you know, they don't have a phone. And so there was no way for them to even get on their phone and get in [the virtual classroom] and so I had to adjust a lot of what I did. I had some students that weren't there for the first four weeks because they couldn't even get a laptop from school until that point, and so you have to be really flexible. (M. Curie, Zoom interview, December 18, 2020)

Three participants (Maya, Jane, and Sandra) expressed that even when students did have access to technology, it was a struggle to get students to turn on their cameras and microphones and actively participate in class (WC). Eleanor reported a decrease in student motivation among her online students (WC). This decline in student interests was attributed to a variety of factors including cancelling normally scheduled events (WC), an increase in virtual events that were less

interactive than in years prior (WC), and not having the same visual, physical, and emotional contact with students to facilitate building relationships (PR). A prevailing feeling of despair in having to disappoint students was an underlying theme in many of the interviews (BNT). The identified challenges of being an agricultural educator during the COVID-19 pandemic and their codes are presented below in descending order in Table 15.

Table 15*COVID-19 Agricultural Educator Challenges (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	WC	Student absences	5	41.66
		Students not turning in work	4	33.33
		Technology and learning platforms	4	33.33
		Dealing with cohort teaching	4	33.33
		Hybrid teaching	3	25.00
		Good grasp on technology and different learning platforms	2	16.66
		Working from home	1	8.33
		Virtual events	1	8.33
		Cancelling events	1	8.33
		Planning weeks in advance	1	8.33
		Fear/danger of in person instruction	1	8.33
		Socioeconomic status of students	1	8.33
		Lack of student access to technology	1	8.33
		Increased dropouts	1	8.33
		Shorter classes/less days a week to see students	1	8.33
		Lack of consistency	1	8.33
No concrete schedule	1	8.33		
Being prepared but flexible	1	8.33		
Multitasking	1	8.33		
Digitalizing instruction	1	8.33		
2	BNT	Students not turning their cameras or microphones on	3	33.33

Rank	Code	Evidence	<i>f</i>	%
		Student motivation	3	33.33
		Mental/emotional impact on teachers	2	16.66
		Mental/emotional impact on students	1	8.33
		Having to lower expectations	1	8.33
		Losing people to COVID	1	8.33
		Depression/sadness	1	8.33
		Knowing you have to disappoint people	1	8.33
		Decline in student interests	1	8.33
3	RES	Hands on teaching	4	33.33
		Trying to make virtual interactions fun	4	33.33
		Lesson preparation	1	8.33
4	PR	Upset parents	3	25.00
		No in person connections with fellow teachers	3	25.00
		Not having contact with students (visual, physical, emotional)	2	16.66
5	MS	District grading policies	5	41.66
6	CL	Boredom	1	8.33
		Self-motivation	1	8.33
		Lack of accountability	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

Participants were then asked to identify the job responsibilities they found the most challenging within Classroom Instruction. Grading, paperwork, and planning hands on lessons

that were both current and relevant were among the top responsibilities with which the participants struggled (RES). Maya stated,

The challenge for the preparation, you know, there's sometimes where it's just like, you know, if you hadn't taught it at least once, and it's not your background, and then you know you're kind of in the moment, trying to connect and find the pathway and put things back together, so to speak, just in the sense of being able to make the lesson work and connect and be meaningful for the students. (M. Angelou, Zoom interview, December 4, 2020)

Because the agricultural industry is ever evolving, Jane stated that she had trouble staying up to date with agricultural advancements (RES). Not knowing the answer to student questions left Maya feeling inadequate at times (SE).

Participants also expressed difficulty in structuring time in order to teach all of their curriculum during the school year (RES). This factor was exacerbated when the agricultural educators felt they were teaching topics outside of their comfort or knowledge zone (SE). Jane felt that changing curriculum standards added an additional challenge because she felt like she had to completely redo her curriculum map (RES). Organizational changes made to applications or websites made Ruth feel like she had to relearn how to submit paperwork (WC). Having to manage several preps over the course of the day left some participants feeling like they were working more than one job (WC). Frida elaborated,

First of all, ag. had a lot of preps. So a normal teacher has one or two preps, right? They teach regular math and advanced math, or they teach biology and geometry, but in ag., every class is a prep, so that is huge! (F. Kahlo, Zoom interview, December 12, 2020)

In order to keep up with all their preps, each participant admitted to bringing work home in order to be fully prepared the following day/week (WLB). Keeping track of deadlines was deemed both essential and a difficulty to accomplish their Classroom Instruction job responsibilities (RES).

Within the classroom, inadequate equipment (WC), classroom management (MS), and large class sizes (WC) were all viewed as challenging. Katherine and Elizabeth expressed that having large numbers of IEP or 504 students in their programs made it difficult to manage classroom behavior, especially if they did not have a classroom aide (WC). When asked to elaborate on the challenge of working with large numbers of students with special needs, Katherine stated,

I feel like that's an area that we didn't get a lot of training in in college. Like everyone talks to you about like the philosophical concept, but nobody really goes over the practical side of what you actually need to do. And at one point, I had to tell [my administration] like we have to cap this at a certain number of kids from that particular program per class period, because everyone was having, like we were getting fights, almost on a daily basis. And when something did blow up, it was like all of them were struggling to manage their emotions so it would turn into these giant like almost brawls practically. But I mean, the kids loved it and I don't want them to not be a part of ag., because I feel like a lot of times they learn better in their ag. class. (K. Switzer, Zoom interview, January 8, 2021)

Unsupportive administration who did not provide adequate support when scheduling students with special needs heightened this challenge (PR, WC). Only Amelia stated that she found nothing challenging within her Classroom Instruction responsibilities. The identified challenges

for Classroom Instruction job responsibilities and their codes are presented below in descending order in Table 16.

Table 16*Classroom Instruction Job Responsibility Dissatisfaction Factors (n = 12)*

Rank	Code	Evidence	f	%
1	RES	Grading	4	33.33
		Making sure lessons are current and relevant	2	16.66
		Paperwork	2	16.66
		Lesson planning	2	16.66
		Staying up to date with agricultural advancements	1	8.33
		Changing standards	1	8.33
		Hands on	1	8.33
		Keeping track of deadlines	1	8.33
2	WC	IEP/504 students	2	16.66
		Inadequate equipment	1	8.33
		More preps	1	8.33
		Two jobs instead of one	1	8.33
		Large class sizes	1	8.33
		Changes to applications or websites	1	8.33
3	WLB	Bringing work home	1	8.33
		Structuring time	1	8.33
3	SE	Teaching topics outside your comfort/knowledge zone	1	8.33
		Not knowing the answer to student questions	1	8.33
4	PR	Unsupportive administration	1	8.33
4	MS	Classroom management	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

Participants were also able to identify many challenges in their FFA job responsibilities. The responsibility with which the most participants identified as being a challenge was issues involving their officer teams (RES). The second most challenging responsibility involved CDE practices (RES). Participants expressed difficulty in identifying or acquiring CDE resources, finding CDE coaches or judges, and monitoring online CDE tests (RES). Sandra noted that it was difficult to schedule time within her curriculum to devote to FFA and CDE instruction with all the other standards she is required to teach (RES). Getting kids to commit and having student buy in to being an active FFA member were viewed as challenging as well (RES).

Having administration that were unfamiliar with FFA was also seen as a challenge (PR). Teaching administrators about the importance of FFA and the necessity of attending FFA events was often viewed as a second job (PR). Maya stated, “You’re essentially not only having the responsibility of teaching your students, but also teaching the people who should be helping and supporting you” (M. Angelou, Zoom interview, December 4, 2020). Dealing with unrealistic expectations from parents, and either excessive or lack of parental involvement were noted as being especially challenging (PR).

Some participants noted that they felt like they were taking on too many FFA responsibilities and that it was having a negative impact on their personal lives (WLB). In building relationships with students, Elizabeth said that she felt obligated to also attend their student activities outside of agricultural education and FFA (WLB). Time spent at FFA activities also resulted in a loss of time spent with family (WLB). Katherine explained,

Once I had kids, the time away from family, like balancing my FFA responsibilities and my family responsibilities was harder. It was a lot easier when I was young and single and didn't have other people relying on me. (K. Switzer, Zoom interview, January 8, 2021)

Because of all the extra hours spent at FFA events, Sandra expressed that she did not feel compensated for her time and efforts, especially as they pertained to monitoring student livestock projects and attending county fair (SB). She elaborated by saying,

I don't get paid for it. Again, I want to mention that again, because that's a huge thing. And teachers are like, 'Oh, it's not a big deal.' It's, it's become socially accepted that you don't get compensated for everything that you're doing, and there's not a lot of other jobs that are like that. (S. D. O'Connor, Zoom interview, January 10, 2021)

Scheduling CDE practices around cohort schedules, filling out paperwork pertaining to FFA, and holding FFA chapter meetings, awards ceremonies or chapter banquet were also on the list of challenges (RES). Amelia mentioned that a lack of communication with her co teacher in regard to planning FFA activities added an additional challenge to her FFA job responsibilities (PR). The identified challenges for FFA job responsibilities and their codes are presented below in descending order in Table 17.

Table 17*FFA Job Responsibility Dissatisfaction Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	RES	CDE practices	3	25.00
		Buying awards	1	8.33
		Student buy in	1	8.33
		Getting kids to commit	1	8.33
		Scheduling time in instruction	1	8.33
		Taking on too many responsibilities	1	8.33
		Livestock	1	8.33
		County fair	1	8.33
		Banquet	1	8.33
		Finding CDE coaches/judges	1	8.33
		CDE resources	1	8.33
		CDE tests	1	8.33
		FFA meetings	1	8.33
Paperwork	1	8.33		
2	PR	Officer team	4	33.33
		Parent expectations/involvement	2	16.66
		Lack of communication with co teacher	1	8.33
		Teaching administrators about what you do	1	8.33
		Administration unfamiliar with FFA	1	8.33
3	WLB	Going to student activities outside ag.	1	8.33
		Time away from family	1	8.33
4	WC	Scheduling practices around cohort schedules	1	8.33

Rank	Code	Evidence	<i>f</i>	%
4	SB	Pay/compensation	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

In looking at the SAE job responsibilities that they found the most challenging, getting students to understand SAEs and actually have them (evidenced by students investing time and effort into their Immersive SAEs) (CL) was noted by Jane, Eleanor, Marie, Sandra, and Ruth as being the most difficult. However, four participants (Jane, Eleanor, Marie, and Sandra) acknowledged that the SAE for ALL program is helpful in assisting them with getting student buy in (CL, RES). One of the biggest struggles with SAEs was students not having either financial or parental support (WC). Elizabeth said that many times she ended up spending her own financial resources on students' SAEs (WLB). Amelia, Marie, Frida, and Gertrude stated that it was hard to make SAE relevant to urban students (CL). Maya said there was a connection between community socioeconomic conditions and a lack of student commitment to SAE (CL).

The record keeping aspect of SAE was also viewed as a challenge. Gertrude and Ruth reported that while students did not mind having SAEs, they dislike having to keep written records on their hours and investments (RES). Marie said that she struggled with finding the right way to incorporate SAE as a grade to encourage students to maintain good records in the Agricultural Experience Tracker (AET) (RES). Eleanor, Elizabeth, and Gertrude reported restrictions from their administrations in being able to conduct SAE home visits (WC). Eleanor explained that in many ways it was no longer safe for her to venture into students' homes in her community (WC). Other struggles with SAE job responsibilities included having to come up with SAE ideas for all their students, selling SAEs to students who do not want to be there,

making it relevant to future jobs, and managing the growth aspect of SAEs (RES). The identified challenges for SAE job responsibilities and their codes are presented below in descending order

Table 18.

Table 18*SAE Job Responsibility Dissatisfaction Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	WC	Students not having financial support	4	33.33
		Students not having parental support	4	33.33
		Not being able to do home visits	3	35.00
		Community socioeconomic conditions	1	8.33
		Danger	1	8.33
2	CL	Getting students to understand SAEs and actually have them (put in the time and effort/buy in)	5	41.66
		Hard to make SAE relevant to urban kids	3	25.00
		Working with students who don't want to be there	1	8.33
		Lack of student commitment	1	8.33
2	RES	SAE for All is helpful	4	33.33
		Paperwork/recordkeeping	3	25.00
		Coming up with ideas for SAEs	2	16.66
		Making it relevant to future jobs	1	8.33
3	WLB	Time investments	1	8.33
		Spending own financial resources on students	1	8.33
		Having too big of a heart	1	8.33
4	MS	Making FFA or SAE a grade	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a

particular code. % refers to the total percentage of female agricultural educators interviewed that

mentioned a particular piece of evidence for a particular code.

Research Question Two: What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?

After examining the participants' perceptions on the joys and challenges of being an agricultural educator, the attention shifted to the effect that being an agricultural educator had on their personal lives. Unsurprisingly, one of the biggest complaints centered around not being able to spend enough time nurturing personal relationships (WLB). Amelia explained that she felt pressured to never take time off, even if it meant missing out on important family events (WLB). She stated that she worried that taking time off for personal reasons would show a lack of dedication to the profession (CL), and felt a constant need to prove herself and her level of commitment (SE, CL). During her career as an agricultural educator, she said that she did not have someone that told her to prioritize herself or her family:

I think a lot of teachers, not just ag. teachers, get that feeling too. Like we're constantly told well you're there for the kids, you have to be there for the kids, you have to be there. When do we draw the line of, I'm a person too? So, it affected my personal life greatly.

(A. Earhart, Zoom interview, December 5, 2020)

Ultimately, Amelia prioritized her students over the needs of herself until she experienced burnout (BNT), eventually contributing to her decision to leave the teaching profession.

Katherine and Sandra said the extreme time commitments in striving to run a premier program broke up relationships with their significant others (WLB). Elizabeth stated that her children were often jealous of the time she devoted to her students and running her program (WLB).

Job responsibilities outside contract hours such as chapter banquet, lesson planning, and grading also cut into personal time (RES, WLB). Jane expressed not knowing where to draw the line in separating her work from her personal life, explaining,

And it's just the like job responsibilities outside of contract hours sometimes, like it's just, it's just one of those things where it's like, I technically don't have to do it, but I have to do it, but I have to be away from my family...so it's just one of those things where it's like, where do you, where do you draw the line? (J. Goodall, Zoom interview, December 9, 2020)

Amelia said that she did not feel like she had a personal life. The participants who worked in single teacher programs expressed that they felt like they had to juggle more as the sole teacher than if they had a co teacher with whom they could divide up some of their job responsibilities (RES). They also felt that being an agricultural educator entailed more responsibilities and greater time commitment than for other types of teachers (RES). Marie gave added clarity by stating,

If you ask my friends, they would say yeah definitely that I'm married to work. I do every, I'm there too much. But that's all people also that are not ag. teachers, and so it's hard. It's hard for me to balance because, as an ag. teacher, we do have to give a lot more than like a math teacher or an English, and that's just the way it is, and we kind of knew that going into it. (M. Curie, Zoom interview, December 18, 2020)

Katherine added,

I think sometimes we let um we let ourselves build like these monsters that are not sustainable. And I feel like as a, like a single person, I kind of did that a lot in a lot of ways. Like you build up this huge program, and students expect that, and then when you do have a family it's hard to balance that. (K. Switzer, Zoom interview, January 8, 2021)

Sandra went so far as to add that curriculum on work-life balance should be included as part of a teacher preparation program (WLB), saying, "So, I think, I wish there was a class that we had to

take in college that was strictly about balancing work life and personal life, and learning how to say no” (S. D. O’Connor, Zoom interview, January 10, 2021).

Participants had many good suggestions for how to achieve work-life balance. These included incorporating your family into your agricultural education program, prioritizing your physical and mental health, planning for longevity in the profession by putting your needs first, and coming home on time as much as possible (WLB). Maya expressed the importance of surrounding yourself with a support network, while Amelia and Sandra agreed but also said you need supportive people that can also call you out (WLB, PR). Being able to talk and network with fellow agricultural educators who can empathize with you was also deemed beneficial in helping the participants prioritize themselves (PR).

Interestingly, two of the participants noted that having a family and children brought a good stability to their work-life balance (WLB). Gertrude said that having children made it slightly easier for her to say no to work commitments:

I was talking to some other ag. teachers about this the other day, I don’t know how to help young women defend that right to just walk away, and young men for that example, for that purpose too. But just that ability to say no, that just because you’re young and single doesn’t mean you have to stay and work late hours. But yeah, having the fortitude to say no to that is, is hard. (G. Ederle, Zoom interview, January 8, 2021)

Malala agreed that she enjoyed having children while simultaneously being an agricultural educator stating,

I knew that I could be a better mom when I was still able to do what I wanted to do too, which is be in the classroom. And so that has really helped too, because I feel like I can be a better mom and better wife when I’m able to go and do my school stuff and then

come home and spend time with them. (M. Yousafzai, Zoom interview, January 14, 2021)

Having a family also meant that some participants could enlist their help at FFA events (WLB). Sandra stated that while being an agricultural educator is a lot of work, it fits her sociability level (SI), and so that helps to make up for the extra investment of her time. The identified effects of being a female agricultural educator on personal life experiences and their codes are presented below in descending order in Table 19.

Table 19*Effects of Being a Female Agricultural Educator on Personal Life Experiences (n = 12)*

Rank	Code	Evidence	f	%
1	WLB	Not spending enough time nurturing personal relationships	4	33.33
		Incorporating family into program	3	25.00
		Family has brought good balance to work-life	2	16.66
		Prioritize your physical and mental health	2	16.66
		Plan for longevity	2	16.66
		Being an agricultural educator broke up relationships	2	16.66
		Enlisting family help	1	8.33
		Family making dinners	1	8.33
		Personal children jealousy issues	1	8.33
		Time	1	8.33
		Don't have a personal life	1	8.33
		Having children made it easier to say no	1	8.33
		Come home on time as much as possible	1	8.33
2	CL	Feeling like you can't take time off	1	8.33
		Worried about showing lack of commitment	1	8.33
		Need to prove oneself	1	8.33
		Did not have someone that told her to prioritize herself or her family	1	8.33
		Prioritizing students over self	1	8.33
		Not knowing where to draw the line	1	8.33
2	PR	Need supportive people that can also call you out	2	16.66

Rank	Code	Evidence	<i>f</i>	%
		Surround yourself with a support network	1	8.33
		Talk to fellow ag. teachers	1	8.33
		Attend conferences	1	8.33
		Single teacher program	1	8.33
3	RES	More responsibilities than other teachers	1	8.33
		Job responsibilities outside contract hours:	1	8.33
		Banquet		
		Job responsibilities outside contract hours:	1	8.33
		Lesson planning		
		Job responsibilities outside contract hours:	1	8.33
		Grading		
4	SI	Being an agricultural educator fits personal sociability level	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

Participants were asked to identify specific strategies they use to achieve work-life balance. At the top of the list was recruiting industry experts to help teach/coach topics outside their comfort zones and delegating responsibilities to volunteers or teacher aides (PR). Asking for help when needed and identifying strengths and weaknesses was key to accomplishing this measure. Frida added, “It took a community to run my program, and...but I didn’t have a problem asking for help” (F. Kahlo, Zoom interview, December 12, 2020). Malala Yousafzai stated that this could also be achieved through something as simple as students helping other students (PR). Seeking out support from parents and those within the community was also

viewed as integral to lessening the responsibilities placed upon themselves (PR). Being part of a two-teacher program in which responsibilities could be divided was deemed helpful as well (PR).

Setting limits on electronic accessibility was also viewed as important to achieving work-life balance. Katherine recommended not checking her work emails at home and making a conscious effort to put her phone away during family time (WLB). Two participants stated that taking the notification setting off their phones was also helpful in minimizing distractions (WLB).

Becoming more time efficient (RES) was identified as important to finding work-life balance as well. Jane emphasized the importance of creating priority lists to help her plan out the daily tasks she needed to accomplish (WLB). She also changed her grading policies so that she felt less pressure to enter grades for assignments that students turned in late (RES). Ruth stressed the importance of using a calendar to schedule both work commitments and family time (WLB).

Having a family or a strong support network was seen as important to achieving work-life balance. Family members could be used to help with transportation or as chaperones of FFA events. At home, family could help relieve stress with something as simple as making meals. Overall, having people who understand your job responsibilities (RES) and the needed commitment level (CL) was seen as essential to bringing balance between work and personal life. In speaking about the support of her husband, Jane stated, “And I think I’m lucky there too, where he fully understands, because it’s hard to fully understand unless you do it” (J. Goodall, Zoom interview, December 9, 2020). Gertrude and Malala advocated melding their personal and professional lives by utilizing students as babysitters for their own children (WLB, PR). However, Amelia stated that she never felt fully comfortable incorporating her family into her work life. Although her male cooperating teacher encouraged her to bring her family to FFA

events as he did, she felt that it was easier for him as a male to bring his wife and children than it would be for her to bring additional people for whom she had to be responsible (GB).

Maya noted that while she realized that it was important to prioritize herself, she struggled to balance that with her need for career and financial security. Looking back at the self-sacrifices she made in her first year of teaching, she wished she had written herself a letter from her future self, imploring herself to minimize any other outside challenges and figure out what she could do to make her job a little bit more enjoyable (SE, WLB). This included activities like finding a quiet time and place to recharge, having hobbies, and surrounding herself with positive and supportive people (WLB). Sandra also expressed difficulty in prioritizing herself early in her career:

And so for me, it was just learning what a personal life even was with kids and setting healthy boundaries. And I, I think that it would be really beneficial if um other teachers talked about that more to the young teachers and encouraged it...it's not encouraged very often, of saying 'no.' What's encouraged is doing your SAE visits or bragging about how big your program is or bragging about how much you work and bragging about...I mean there's so much bragging that happens, at least it seems. And there's no like, 'Oh heck no! I said no. Like look at my family, look at this hobby, like....' It's not being bragged to have a healthy life, at least that I've heard. (S. D. O'Connor, Zoom interview, January 10, 2021)

Elizabeth noted that it took her several years to learn how to achieve work-life balance. Prior to that realization, she felt as though she needed to always be accessible to her students and her program. In order to help prioritize her personal life, she took steps to close down the program on time on certain days, set boundaries about when students could contact her, and made an

effort to come home on time as much as possible (WLB). She continued this practice even after moving on campus and living on the program facilities, noting that having a supportive administration (PR) was key to helping her feel good about prioritizing herself.

Final recommendations on achieving work-life balance included sharing about your life with your students so that they know you have a personal life with personal commitments (WLB) and standing by your decisions (SE). Sandra stressed being comfortable with yourself and knowing who you are outside of the profession; she emphasized that you should not be defined by your program (SE, WLB). Cutting down your travel time to work was identified as important by three participants (WC), as was making an effort not to bring work home (WLB). Marie elaborated,

I mean I spend like 12 hours at work anyway so once I leave, I try, that is the cut off, I'm not gonna check my phone email. I'm not gonna bring stuff home to grade, uh so if I need to work, I go to work. So even if I ever have to go in on Saturday and work, I go work at work, I don't bring it home. And I think that's helped me a lot to make my house not school. (M. Curie, Zoom interview, December 18, 2020)

Overall, loving both your career and your program location (WC) were seen as necessary components to being willing to make sacrifices in your personal life (WLB). Factors that contribute to WLB and their codes are presented below in descending order Table 20.

Table 20*Factors Contributing to Work-Life Balance (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	PR	Recruit/Delegating responsibilities	4	33.33
		Surround yourself with positive/supportive people	2	16.66
		Helping with transportation	2	16.66
		Making meals	2	16.66
		Industry experts	2	16.66
		Teacher aids	2	16.66
		2 teacher program (divide responsibilities)	1	8.33
		Having people who understand your job responsibilities	1	8.33
		Students helping students	1	8.33
		Community support	1	8.33
		Supportive administration	1	8.33
		Ask for help	1	8.33
		2	WLB	Don't work at home
Have hobbies	2			16.66
Taking notifications off phone	2			16.66
Minimize any other challenges that you have on the outside	1			8.33
Find time and places to recharge	1			8.33
Creating priority lists	1			8.33
Closing down the program on time on certain days	1			8.33
Come home on time as much as possible	1			8.33

Rank	Code	Evidence	<i>f</i>	%
		Not checking emails at home	1	8.33
		Put your phone away	1	8.33
		Setting boundaries	1	8.33
		Prioritize self	1	8.33
		Schedule family time	1	8.33
		Calendar	1	8.33
3	WC	Travel time to work	3	25.00
		Lack of sleep	1	8.33
		Figure out what can make your job a little bit more enjoyable	1	8.33
4	SE	Be comfortable with yourself/know who you are/don't be defined by your program	1	8.33
		Love your job	1	8.33
		Stand by your decisions	1	8.33
		Write a letter from your future self	1	8.33
5	RES	Becoming more time efficient	2	16.66
		Changing grading policies	1	8.33
6	CL	Family understanding needed commitment level	1	8.33
6	GB	Cooperating teacher (male) encouraged her to bring family to FFA events	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

As females in what has been traditionally a male dominated profession, it was essential to understand if the participants felt they had faced undue bias because of their gender. Of the 12

female agricultural educators interviewed, all except Gertrude and Ruth said that yes, they did feel like they had experienced gender bias during their careers. This bias came in many forms. Four participants (Amelia, Jane, Elizabeth, and Sandra) stated that in their experience, parents respect older male teachers more than female teachers (GB). They also expressed dealing with gender bias from their male students (GB). Amelia and Sandra said they had felt bias from older male agricultural educators (GB), while Gertrude and Ruth said that they had never felt bias from other male agricultural educators. In speaking about how it was when she first started out 28 years ago and her experience with older male agricultural educators, Ruth stated,

So, you know, I kind of got to, I appreciated being able to see those guys at different events and stuff and knowing that they had had great programs, and they were all very supportive. So I never felt like I wasn't a part of the group. I feel like they always, you know, they knew you've got to have new teachers coming in and you've got to support them so they'll be um successful. So no, when I was in there and it was heavy on the male side, I've never felt any bias. (R. B. Ginsburg, Zoom interview, January 21, 2021)

Elizabeth said that she felt like there was still an element of the "Good Old Boy" system (GB) among the agricultural educators in Arizona stating, "Yeah, I think the older guys didn't take us females very seriously. I don't think it was the newer ones, it was the older guys. I think they look down on females" (E. Eckford, Zoom interview, December 16, 2020). Malala said that she felt like there was often more discipline or feedback directed at her than her male co teacher (GB), although she could not expressly say that it was because she was female and not because of some other community dynamic.

Other sources of gender bias included from administration, within the CTE world, and within the cattle industry (GB, PR). It took the form of having to constantly prove that you know

what you're talking about (SE) all the way up to not being considered for positions or job opportunities (GB). Elizabeth said she felt like her skills were sometimes taken advantage of without giving her credit (REC). Maya said that in addition to feeling bias as a female agricultural educator, she also felt bias for being an African American woman in the profession (VTP). Jane expressed,

I have had rude things said to me by fully grown male adults. I kind of blocked them out but, you know, along the lines like, they didn't say I was stupid, but their tone of voice made it sound like they're calling me stupid and telling me like not to do stuff. (J.

Goodall, Zoom interview, December 9, 2020)

Eleanor added,

I had men come in and tell me women had no business teaching welding. So that was a little bit of a challenge. But again, my personality is just like, really? Okay, come on, let's see who can weld better. (E. Roosevelt, Zoom interview, December 11, 2020)

Three other participants also admitted to feeling ageism along with gender bias (VTP). Gertrude stated, "I always felt like I faced more adversity being young than being a woman when I started teaching" (G. Ederle, Zoom interview, January 8, 2021). These sources of bias resulted in many of the participants feeling anxious about the need to prove that they knew what they were doing (SE).

The participants who had children expressed that they felt extra pressure to balance their responsibilities to their children with those to their students (SCG, GB). Frida stated that while she did feel supported by her male professors while going through the teacher preparation program, the desire to devote more time to her children was a major influence in her decision to leave the profession. Katherine, Gertrude, Malala, and Ruth spoke about having to travel with

their children when they were younger (SCG). They stated that while male agricultural educators also bring their children to FFA events, they also usually bring their wives to care for their children, while female agricultural educators tend to be the sole caretakers of both their children and their students at these events (SCG). In addition to feeling pressure within the profession, the participants also claimed to feel societal pressures to be the primary caretaker of home and children (SCG). Katherine expressed,

And then as a woman, you're like, you're expected to be the primary caretaker of your children in most cases, so you feel all this extra pressure that I feel like a lot of men don't feel. But I never felt like any of my male teachers treated me any differently because I was female, because I think we've gotten to a point where we're almost 50/50 in this profession, at least here in Arizona. (K. Switzer, Zoom interview, January 8, 2021)

Malala added,

I don't know that I would say I felt those challenges before I had kids, um but I would say once I've had kids, there's definitely more challenges as a female ag. teacher, I think, than a male. Um specifically on maternity leave. (M. Yousafzai, Zoom interview, January 14, 2021)

Malala said that she did not realize the extra pressure placed on female agricultural educators with children until she began to compare her maternity leave with that of another woman in her community (SCG). The other woman was not expected to work at all on her maternity leave; even her work email was shut off. Malala, however, while not expressly expected to, felt pressured to continue to be involved in planning and managing FFA and Classroom Instruction responsibilities during her maternity leave.

Many of the participants emphasized that bias could be multi-dimensional (age, gender, race, years of experience, community demographics, etc.). Maya elaborated,

And so, just in the different aspects, you know, teaching in this town last year, and especially in a rural area. Um and again, the additional factors of being young and being an outsider, being an African American in a primarily Caucasian-dense area is one of those things that, you know, I definitely did feel bias with that, as far as going and being a teacher in that area. (M. Angelou, Zoom interview, December 4, 2020)

However, with increasing numbers of women in agricultural education and FFA and less stereotypes about teaching as a “women’s profession,” (SCG) all the participants agreed that the existence of gender bias within the profession is decreasing and will most likely disappear over time. Elizabeth added that as overall diversity is increasing in the profession, we will most likely see greater decreases in gender bias. The identified sources of gender bias and their codes are presented below in descending order in Table 21.

Table 21*Female Agricultural Educator Sources of Gender Bias (n = 12)*

Rank	Code	Evidence	f	%
1	GB	Parents respect older male teachers more	4	33.33
		Bias from male students	4	33.33
		Bias from cattle industry/CTE	4	33.33
		It is improving, there is less bias	2	16.66
		Bias from older male ag. teachers	2	16.66
		Having to prove yourself as a female in the profession	1	8.33
		Not being considered for positions or job opportunities	1	8.33
		Good old boy system	1	8.33
2	SCG	Societal pressures to be primary caretaker of home and children	5	41.66
		Travelling with kids and students	4	33.33
		Maternity leave issues	1	8.33
		Teaching as a “women’s profession	1	8.33
3	PR	Never felt bias from other ag. teachers	2	16.66
		Gender bias from administration	2	16.66
		Male professors were supportive of her with her children	1	8.33
		Bias from male college professor	1	8.33
		More discipline/feedback directed at female than male co teacher	1	8.33
4	VTP	Ageism	3	25.00
		Bias for being an African American woman in agricultural education	1	8.33

Rank	Code	Evidence	<i>f</i>	%
5	SE	Having to prove that you know what you're talking about	1	8.33
		Causes anxiety	1	8.33
6	SI	Community demographics	1	8.33
6	REC	Taken advantage of by male teacher because of skill set	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

When asked if they had ever considered leaving the profession, 11 participants stated that yes, they had. Only Malala indicated that she never considering leaving stating, “Yeah so, I really, honestly, have never felt that way, even after having kids...I would say that almost solidified me more that I was doing what I wanted to do” (M. Yousafzai, Zoom interview, January 14, 2021). Of the 11 that had considered leaving, all of them said that they wanted to stay in education in some form, be it pursuing something agricultural education related, teaching at the university level, or teaching at the elementary level. Gertrude expressed,

And I think what kept me from doing that was I said that if I could see myself doing something other than teaching agriculture, I know that that's the time for me to leave. And I still couldn't see myself doing anything else like I...I cannot say oh, you know what, if I wasn't gonna teach ag. this is what I would do. And so since I don't have that, that thing, that other thing to do, I think that I know that this is what I'm supposed to be doing, this is what I can see myself doing. (G. Ederle, Zoom interview, January 8, 2021)

This sentiment was echoed by several of the other participants still in the profession as to why they were still agricultural educators.

The reasons behind their consideration to leave the teaching profession varied from lack of administrative support to working with unsupportive co teachers (PR). Malala said her issues with her administration (PR) were exacerbated by stressors caused by the COVID-19 pandemic. Jane and Eleanor stated that the virtual learning format required by the COVID-19 pandemic made them question if it was worth it continuing on as agricultural educators; teaching online hindered their ability to facilitate hands on learning with their students (WC). Eleanor said that the pandemic has also taken a mental and emotional toll on her ability to cope with stress (WLB). Although she worried that her decision would disappoint others in the agricultural education community, Amelia said that concerns over her mental health and a desire to spend more time with family are what led to her choice to leave the profession (WLB). She explained,

I don't think that schools do enough to help teachers understand how to care for their mental health. Um I don't think...I think there's still that stigma around mental health as well. But something needs to change because it, people don't treat us like people anymore. So that's why I left. (A. Earhart, Zoom interview, December 5, 2020)

Similarly, Frida also expressed wanting to spend more time with children as a leading reason for why she chose to leave, coupled with the fact that she could not find a position as an agricultural educator in a location convenient for her family (WLB).

A desire not to have a long work commute (WC) was a common theme between Maya and Frida. In addition, Maya said her decision to switch programs was driven by her realization that while she liked her career, she also disliked her current job (WC):

I was very much questioning whether it was the profession for me or not, and everything and trying to decide what the best next move was because, you know, you don't want to make the same mistake twice and, you know, be a teacher that leaves every single year

and switches schools every single year. Because, you know, it was hard. There is a lot of time and commitment that was put in and effort that was put in to try and really, really, really try to make that first position work out and everything. But I wasn't happy, and it didn't feel right at the time. (M. Angelou, Zoom interview, December 4, 2020)

Other considerations for leaving the profession included issues with parents (PR), feeling pressured to complete job responsibilities not in contract and not compensated for (WLB, SB), and wanting a clearer delineation between their personal and professional lives (WLB).

Katherine stated, "I think the biggest thing for me is sometimes I wish that I had a job that could end when work ended. Like this, this job, even teaching, like it doesn't end at the end of the day" (K. Switzer, Zoom interview, January 8, 2021). The 11 participants that said they have considered leaving also said that they felt this was a normal consideration, and that every agricultural educator thinks about leaving at least once in their career. The identified factors that contribute to female agricultural educator decisions to leave the profession and their codes are presented below in descending order in Table 22.

Table 22*Female Agricultural Educator Attrition Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	PR	Lack of administrative support	3	25.00
		Unsupportive co teacher	2	16.66
		Trouble with parents	1	8.33
2	WC	Liked career, disliked job	2	16.66
		COVID virtual teaching	2	16.66
		Work commute	1	8.33
2	WLB	Mental health	2	16.66
		Family	1	8.33
		Children	1	8.33
		Wanting delineation between work and home	1	8.33
3	SB	Outside duties not in contract and not compensated for	1	8.33
		Pay/salary	1	8.33
4	CL	Fear of disappointing others	1	8.33
4	SE	Questioned if this was the right profession	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

The participants who had considered leaving the profession were asked what convinced them to stay on as agricultural educators. Seven of them (Maya, Jane, Eleanor, Marie, Gertrude, Sandra, and Ruth) stated that it was the support of fellow agricultural educators that gave them

the strength to continue (PR). In addressing her consideration to leave with others in the profession, Marie said,

I know if they had said, ‘Hey, maybe you need to quit,’ then I would have been like, okay, this teacher has been teaching a long time and if they think that I do need to be done, that I probably need to be done. But they were very supportive. (M. Curie, Zoom interview, December 18, 2020)

Eleanor said that the solitude brought on by the COVID-19 pandemic has made her realize how much she missed the in-person camaraderie, conversations, and check ins from other agricultural educators (PR). When she realized that “everybody is struggling through this and so it, it’s not just, it’s not just me,” Eleanor found strength in the shared experiences of other agricultural educators (E. Roosevelt, Zoom interview, December 11, 2020). Maya, Marie, and Malala said that positive affirmations from and interactions with their students (both present and past) are what drive their passion (PR). Surrounding yourself with positive people who believe in you was also recommended. This could include family, friends, and even other teachers outside of agricultural education (PR). In speaking about her moments of feeling discouraged, not just as an agricultural educator but as a teacher in general, Jane added,

I think it’s specific to other teachers because that fleeting feeling...I think if I had said that [I wanted to leave the teaching profession] to my husband, he would be more concerned about whether or not I find my job fulfilling. But other teachers get it. Like other teachers are like, ‘Oh yeah, I thought about working at McDonald’s last week.’ (laughs) (J. Goodall, Zoom interview, December 9, 2020)

Of the four participants that are no longer agricultural educators, Amelia and Elizabeth said that no one tried to convince them to stay in the profession.

Several participants said that they held a personal inner dialogue with themselves that kept them going (SE). Maya always tried to remind herself that she does not like to quit (CL), and to remember the joys of teaching when she feels discouraged (RES). Jane recommended trusting yourself and your abilities and acknowledging your own value (SE).

Another reason given by the Maya in her decision to stay included the realization of her financial responsibilities such as needing a job to pay bills and student loans. Gertrude said that she had had the opportunity to try out other jobs through summer internships, but none of them ever felt quite right. Sandra stated that attending professional developments on work-life balance, specifically the Exhilarate Conference, had given her the words and the courage to start putting herself first (WLB). Once she began to value herself and her contributions to the profession, she felt better able to handle the challenges that came along with the career. The identified factors that contribute to female agricultural educator decisions to remain in the profession and their codes are presented below in descending order in Table 23.

Table 23*Female Agricultural Educator Retention Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	PR	Supportive ag. teachers	7	58.33
		Students	4	33.33
		People who believed in her	2	16.66
		Miss in person camaraderie, conversations, and check ins	1	8.33
		Shared with friend	1	8.33
		Family	1	8.33
2	WLB	Professional development on WLB	2	16.66
2	SE	Trust yourself and your abilities	1	8.33
		Value yourself	1	8.33
3	RES	Remembering the joys of teaching	1	8.33
3	CL	Don't like to quit	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

Research Question Three: Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?

The Arizona Agriculture Teachers Association (AATA) New Teacher Mentoring Program was designed to support agricultural educators transitioning into the profession. Responsibility for the program currently rests with the AATA, although in the past it has also been handled by the University of Arizona. Through the program, an experienced agricultural educator is paired with an agricultural educator that is new to Arizona. The mentor teacher is

expected to provide support to their mentee, helping them understand how their FFA district works and how to navigate the challenges of being a new agricultural educator.

Participants were asked to describe their participation in the AATA New Teacher Mentoring Program, either as a mentor or as a mentee. Ten participants specifically remembered being a mentee in their first year of teaching (all except Gertrude and Ruth), while six of them reported serving as a mentor (Eleanor, Elizabeth, Marie, Gertrude, Sandra, and Ruth). Four stated that they had never had a mentee (Maya, Amelia, Jane, and Katherine). Of the 10 participants that remembered being a mentee, eight of them said that while they did have a mentor, they also sought advice from other agricultural educators from whom they felt comfortable soliciting guidance (PR). In speaking about her memories of the mentoring program, Frida stated, “So the mentoring program per se didn’t help me a lot, but I found mentors that helped me” (F. Kahlo, Zoom interview, December 12, 2020). Maya also reported reaching out to past professors for assistance when she needed support (PR).

Jane, Elizabeth, and Sandra remembered meeting their mentor at the Mentor/Mentee Breakfast during the CTE_{AZ} Summer Conference held yearly in July in Tucson, AZ. After this initial contact, eight mentees (Maya, Amelia, Jane, Frida, Elizabeth, Katherine, Sandra, and Malala) reported a lack of contact or advice with their mentor and four felt that overall the program itself was unstructured (Maya, Elizabeth, Sandra, and Malala) (CL). Maya stated that her mentor was selected for her based on the close proximity of their programs; however, even the proximity did not bridge the gap in communication (SI). Eleanor also said that mentors were often selected based on proximity and FFA district (SI). Amelia said that her co teacher served as her mentor. Both Eleanor and Malala facilitated the mentor program by serving as Leadership Chair on the AATA Leadership Committee. Both stated that while they had tried to improve the

program and felt that it had improved in small ways, they did not feel like it was as successful as they would have wanted.

Of the participants that served as mentors, Eleanor, Gertrude, and Ruth reported not being good at remembering to email or call their mentees (CL); they felt better at in-person communication, though these instances were often few and far between. Emails and phone calls were the primary method of contacting mentees. Eleanor and Sandra said that in some instances, the effort that they put forth to contact their mentees was unreciprocated (CL). Sandra said that in one instance, her mentee never returned her attempts to contact her (CL).

Katherine provided much useful information as to how the new teacher induction program works. At the CTE_{AZ} Summer Conference, new teachers attend workshops about the three components of a total program, participate in panel discussions with veteran agricultural educators, and receive instruction on how to manage different types of facilities. Funding for chapters, working with AET and National FFA, and the purpose of the AATA Leadership Committee are also covered in these workshops. Finally, the mentees are introduced to their mentors at the Mentor/Mentee Breakfast during which they are encouraged to exchange contact information and set up future communication. In recent years, monthly workshops on topics reported to be challenging to new teachers have also been held.

Despite the current format of the program, participants reported many challenges, the primary one being lack of contact in both directions (CL). In speaking about the lack of communication, Malala said,

But at the same time, like the mentors I feel like need to do a better job of...sometimes they just don't know what to ask. You know, as a first-year teacher, like you don't even know where to begin. So sometimes I feel like the mentors probably feel like the mentees

need to reach out, and then the mentees probably feel like the mentors need to reach out, and so, you know, there's like a lot of open gaps. (M. Yousafzai, Zoom interview, January 14, 2021)

Amelia and Malala reported still feeling like outsiders despite the close proximity of their mentors (VTP, SI). Having mentors selected solely based on the distance of their program was also seen as detrimental when other factors like personality and lifestyle were not taken into account (SI). Sandra recommended that perhaps mentors should be separated out into which of the three components they most specialized in (Classroom Instruction, FFA, or SAE) so that “types” of agricultural educators could be matched with those with similar strengths or program goals.

Without receiving reminders from the Leadership Chair to contact their mentees, mentors reported difficulty remembering to establish consistent lines of communication (CL). Katherine stressed the importance of finding out what first year teachers need; these challenges change from year to year, so she felt it essential to include them in the conversation about where they need the greatest support (VTP). As a former Leadership Chair and the sole participant with industry certification, Malala said that more work needs to be done to decrease the gap between traditional and industry certified teachers (VTP). To further explain this need she added,

But I also understand too that sometimes ag. teachers aren't always the easiest people to begin a relationship with. And that maybe it's just people in general, right, but like someone not...and I think especially too for our industry teachers versus like our certified teachers, there is a gap. And, and I think it's because there's more and more industry teachers like, I don't feel like they're getting looked down on as much as they have been in the past, you know. But I think some of the older ag. teachers and stuff just have a

mentality of like, 'Well, you're industry certified, so you're on your own,' you know?

(M. Yousafzai, Zoom interview, January 14, 2021)

In general, an overall awareness of seeing new agricultural educators as individuals with unique needs was advocated by the participants as a necessary factor when arranging the mentor/mentee pairings. The identified AATA experience factors and their codes are presented below in descending order in Table 24.

Table 24*AATA Mentoring Program Experience Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	CL	Lack of contact	5	41.66
		Unstructured	4	33.33
		Lack of advice from assigned mentor	3	25.00
		Not good at remembering to email/call mentees	3	25.00
		Better at in-person communication	3	25.00
		Lack of response from mentees	2	16.66
2	PR	Sought advice from other ag. teachers	8	66.66
		Co teacher as a mentor	2	16.66
		Sought advice from professors	1	8.33
3	VTP	Outsider	2	16.66
		Find out what first year teachers need (it changes) (include them in the conversation)	1	8.33
		Gap between traditional and industry certified teachers	1	8.33
3	SI	Mentor was selected due to program proximity or district	2	16.66
		Close distance	2	16.66

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

Participants were asked the gender of their past mentees/mentors to determine if gender had an effect on the mentoring relationship. Six participants (Maya, Amelia, Frida, Marie, Sandra, and Malala) reported having a female mentor and two had male mentors (Jane and

Elizabeth). Of the participants who had served as mentors, four of them (Eleanor, Elizabeth, Marie, and Sandra) reported working solely with female mentees, and two (Gertrude and Ruth) had worked with a mix of both male and female mentees.

When asked specifically if they thought gender had an effect on the mentoring relationship, five participants stated that they believe gender does or could have an effect (Maya, Amelia, Jane, Katherine, and Sandra), and six were unsure if gender impacts the mentoring relationship (Eleanor, Frida, Marie, Elizabeth, Malala, and Ruth). Gertrude believed that gender would have no impact on the mentoring relationship. Elizabeth added that she reached out equally across gender.

Many justifications were given by those who believed that gender does have an impact to explain their reasoning. Maya said she would be less likely to share as much information with a mentor of the opposite gender. She also believed that there should be some element of friendship between the mentor and their mentee: “And I’m not saying that a mentor relationship should necessarily be like a friendship relationship, but I do feel like there should be some element or pillar of a friendship involvement there” (M. Angelou, Zoom interview, December 4, 2020). Amelia said that advice from male agricultural educators is not always applicable to female agricultural educators. She elaborated, “I did not listen to his advice a lot of the time because it didn’t feel like it would work for me, because I was a female” (A. Earhart, Zoom interview, December 5, 2020). Jane thought that in addition to gender that the age of the mentor may have had an impact as older agricultural educators, though wise with many years of experience, may be out of touch with the challenges facing incoming teachers in this day and age (VTP). She reported,

I think gender does affect it, but I don't think that relationship having a male mentor for a female new teacher is a detriment. I just think it could be elevated if it was someone who you saw yourself like, 'Oh I could, like I could be like that person.' (J. Goodall, Zoom interview, December 9, 2020)

Marie also agreed that there were more factors that influence the mentoring relationship in addition to gender, specifically that individual personalities need to be matched as well. In order to do this, she believes more time is needed to build a connection perhaps in the form of more networking events prior to the mentor selection (PR). Katherine agreed that a mentor needs to care about you and your wellbeing, and this is easier when it is someone you know versus a stranger (PR). In speaking about the impact of gender on the mentoring relationship she said,

I do think gender plays an impact, I think maybe one way more than the other. Like I feel like for a female, a new female teacher, sometimes it can be helpful to have an experienced female teacher because there's things that women are going to experience as an ag. teacher that men don't have to, like those family balance things are kind of more heavily on a woman...I also feel like sometimes if you have a, some, some male teachers are more hesitant to take advice from a female, so you may have that problem with the reverse. (K. Switzer, Zoom interview, January 8, 2021)

Sandra also felt that female agricultural educators might feel more comfortable with a mentor of their same gender saying,

I think it's good though to be with someone who is the same gender, so that you have a better realistic look at advice...like they're giving it to you and you're probably more likely to go through the same experiences they're going through as a female than as a male if you are a female person. (S. D. O'Connor, Zoom interview, January 10, 2021)

Malala felt like the benefit of pairing mentors and mentees based on gender did not just apply to females, but that new male agricultural educators might also benefit from the guidance of an experienced male agricultural educator. She elaborated,

I think as a first-year teacher, you might do...female teacher...you might do okay paired up with a male mentor. I don't know as a first-year male teacher if it would be really good for you to pair up with a female. (M. Yousafzai, Zoom interview, January 14, 2021)

Ultimately, all twelve participants agreed that the mentor/mentee relationship was about serving each other; both parties needed to put in mutual effort to lift each other up and help each other be successful in the profession (CL).

While the participants pointed out many challenges within the AATA New Teacher Mentoring Program, they also made several suggestions for how the program could be improved upon in the future. Five of the participants who had served as mentors (Eleanor, Marie, Gertrude, Sandra, and Ruth) emphasized the importance of receiving reminders from the Leadership Committee Chair to communicate with their mentee. In person meetings, phone calls, texts, and emails were all noted as good methods of contact between mentors and mentees. Simple check ins were deemed more effective at checking on the emotional wellbeing of the mentee rather than formal structured meetings. Overall, mentors felt like they needed more guidance from the Leadership Committee on how to be an effective mentor. Factors such as receiving a contact timeline and having set response times to communicate back to your mentee were viewed as necessary components to improving mentor performance. Elizabeth also suggested some sort of monetary compensation for mentors as an incentive to play a more active role in the program (SB). Despite requesting more guidance, mentors also expressed a need to maintain autonomy about how and when they communicated with their mentees.

From the viewpoint of the mentee, recommendations included finding a mentor who you're comfortable with and to whom you do not feel like you need to prove yourself (SE). This can be aided by having more social gatherings before the pairing process where mentees can determine what they have in common with the prospective mentors and thus play a role in selecting their mentor (PR). In speaking about the mentor/mentee relationship, Marie said,

I think it really just boils down to looking at their personality and see if they'd be a good match. Because there's tons of student teachers that go and teach for a male ag. teacher, they're female and they go teach with a cooperating teacher that's male, and they do great. And then there's sometimes a female teacher, student teacher, that gets with a cooperating teacher that's female, and they clash, and they do horrible. It's just, I think it, you really have to look at that...do these, are these people going to get along and is that someone that this person is going to respect their responses and things like that. (M. Curie, Zoom interview, December 18, 2020)

A mentor teacher contact list would be another way in which mentees could contact prospective mentors prior to their matching.

In terms of what was needed from a mentor in the relationship, Maya expressed a need for words of affirmation versus sarcasm from her mentor (PR). She also expressed needing mentoring help on how to acquire equipment and resources. Another suggestion was that mentees should not feel limited to asking for advice from just their mentor. They should actively seek counsel from other agricultural educators, professors, and industry experts with whom they feel most comfortable (PR). Malala advised that mentees should "build relationships with multiple people versus building a relationship with one person" in order to become a well-rounded agricultural educator (M. Yousafzai, Zoom interview, January 14, 2021).

Expanding the mentoring program beyond the first year was another recommendation from the participants (VTP). Amelia stated,

Maybe expand it beyond like the first year to the second year because then you actually have your feet under you, and you're like, okay, now I can think through scenarios and think about how do I fix this. (A. Earhart, Zoom interview, December 5, 2020)

Sandra made a similar statement saying, "I think also, besides that, if there was a way mentors could talk to their mentees more, not just the first year, but really, we need a mentor program for our third through sixth year teachers" (S. D. O'Connor, Zoom interview, January 10, 2021).

Sandra and Malala expressed that during their first year (VTP), they did not want to be seen as a burden to their mentor and so were unsure how often they should ask for assistance (SE). Sandra said she wanted to prove that she could do it on her own so that she could show that she was worthy of being an agricultural educator capable of having an outstanding program (SE). As the sole participant coming from industry, Malala expressed that greater support was required for those coming in from industry than those that were traditionally certified (VTP). She stated that it was harder for outsiders to learn how to fit into the organization since they did not come with the same preparation. Eleanor also identified that there was a generational divide within AATA that needed to be addressed:

I don't feel welcome with the people who are in office. (Individual 3) yeah, but all these new kids? Like I feel like they think you're old and I don't need you. So, and that's perfectly fine because I really don't, I don't need AATA now. I sure did initially, for sure. But that environment somehow needs to change. (E. Roosevelt, Zoom interview, December 11, 2020)

In order for all members to feel welcome to fully participate in the organization, it was suggested that further attention must be given to this issue by the Leadership Committee.

Both mentors and mentees agreed that a prospective mentor should have the following set of characteristics:

- Be traditionally certified
- Have good work-life balance (WLB)
- Be good emotional/moral support
- Have time and desire to help (CL)
- Be a familiar face as a mentor

Areas for the Leadership Committee to look at when matching mentors and mentees included:

- Lifestyle
- Proximity (SI)
- External agricultural enterprises
- Personality
- Program type

Final recommendations to improve the mentoring program were that effort was needed by both mentor and mentee and the relationship needed to be based on mutual respect (CL). The advent of virtual learning platforms brought on by the COVID-19 pandemic highlighted the accessibility offered by technology to communicate effectively. Regardless of how they fare in the mentoring program, new agricultural educators need to prioritize themselves (VTP). Ruth stated,

I mean, I just can think of younger teachers throughout the year that put, you know, 100% into it...and they don't last. You've got to take time for yourself, and then especially when you've got a family, you've got to take time for your family. Um just when you, when I've seen them, 24/7, they burn out (R. B. Ginsburg, Zoom interview, January 21, 2021).

Whether a veteran agricultural educator or one that is new to the profession, valuing oneself and putting your needs first can aid in long term retention and overall job satisfaction. The identified AATA mentoring program satisfaction factors and their codes are presented below in descending order in Table 25.

Table 25*AATA Mentoring Program Satisfaction Factors (n = 12)*

Rank	Code	Evidence	<i>f</i>	%
1	SE	Desire to show you can do it on your own	3	25.00
		Desire to not be a burden	2	16.66
		Find someone that you're comfortable with and that you don't feel like you need to prove yourself	2	16.66
1	VTP	Expand mentoring program beyond the first year	2	16.66
		Help those coming in from industry	2	16.66
		Hard for outsiders	2	16.66
		Mentors should be traditionally certified	1	8.33
2	SI	Need more social gatherings	2	16.66
		Think about more than distance	2	16.66
2	CL	Mentors need to have time and desire to help	2	16.66
		Effort needed by both mentor and mentee	2	16.66
3	PR	Spoke with other teachers as mentors	3	25.00
4	SB	Monetary incentive/compensation for mentors	1	8.33
4	WLB	Have good work-life balance	1	8.33

Note. *f* denotes the number of participants that mentioned a particular piece of evidence for a particular code. % refers to the total percentage of female agricultural educators interviewed that mentioned a particular piece of evidence for a particular code.

Phase Two

Research Question One: Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?

Respondents were first asked to rate their satisfaction with their Classroom Instruction job responsibilities. “Setting the classroom environment” received the highest satisfaction score ($M = 4.45, SD = 0.78$) and “Parent/Teacher conferencing” received the lowest satisfaction score ($M = 3.14, SD = 1.08$). Respondent satisfaction with their Classroom Instruction job responsibilities is displayed below in descending order in Table 26.

Table 26*Perceived Satisfaction Level for Classroom Instruction (n = 30)*

Scale	1		2		3		4		5		6		<i>M</i>	<i>SD</i>
	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable			
Descriptor	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Setting classroom environment			1	3.3	2	6.7	9	30.0	17	56.7	1	3.3	4.45	.78
Managing classroom expectations					2	6.7	16	53.3	11	36.7	1	3.3	4.31	.60
Hands on lesson plans			2	6.7	3	10.0	10	33.3	14	46.7	1	3.3	4.24	.91
Managing classroom behavior					5	16.7	14	46.7	10	33.3	1	3.3	4.17	.71
Lesson delivery			1	3.3	3	10.0	15	50.0	10	33.3	1	3.3	4.17	.76
Designing lab activities			1	3.3	3	10.0	15	50.0	10	33.3	1	3.3	4.17	.76
Keeping lessons current and relevant					3	10.0	22	73.3	4	13.3	1	3.3	4.03	.50
Maintaining curriculum certifications					6	20.0	18	60.0	5	16.7	1	3.3	3.97	.63
Using technology					8	26.7	14	46.7	7	23.3	1	3.3	3.97	.73
Maintaining lab facilities			4	13.3	4	13.3	12	40.0	8	26.7	2	6.7	3.86	1.01
Professional membership duties	1	3.3	1	3.3	6	20.0	15	50.0	6	20.0	1	3.3	3.83	.93

Scale	1		2		3		4		5		6			
Descriptor	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable		<i>M</i>	<i>SD</i>
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Making purchase requests	1	3.3	4	13.3	3	10.0	14	46.7	7	23.3	1	3.3	3.76	1.09
301 duties	1	3.3	1	3.3	9	30.0	9	30.0	7	23.3	3	10.0	3.74	1.02
Grading	1	3.3	6	20.0	3	10.0	10	33.3	9	30.0	1	3.3	3.69	1.23
Advisory board meetings			6	20.0	9	30.0	8	26.7	6	20.0	1	3.3	3.48	1.06
IEP/304 differentiation			6	20.0	8	26.7	11	36.7	4	13.3	1	3.3	3.45	.96
Maintaining equipment to teach all standards			9	30.0	5	16.7	10	33.3	5	16.7	1	3.3	3.38	1.12
Assisting with district and state assessments	2	6.7	6	20.0	7	23.3	10	33.3	4	13.3	1	3.3	3.28	1.16
Parent/Teacher conferences	1	3.3	8	26.7	8	26.7	8	26.7	3	10.0	2	6.7	3.14	1.08

Respondents were then asked to rate their satisfaction with their FFA job responsibilities. “Traveling to state convention” received the highest satisfaction score ($M = 4.42$, $SD = 0.81$) and “Recruiting industry experts to coach/judge CDEs” received the lowest satisfaction score ($M = 2.73$, $SD = 0.92$). Respondent satisfaction with their FFA job responsibilities is displayed below in descending order in Table 27.

Table 27*Perceived Satisfaction Level for FFA (n = 30)*

Scale Descriptor	1		2		3		4		5		6		<i>M</i>	<i>SD</i>
	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Traveling to state convention			1	3.3	2	6.7	8	26.7	15	50	4	13.3	4.42	.81
Traveling to state association conferences					3	10.0	9	30.0	13	43.3	5	16.7	4.40	.71
Hosting chapter banquet			2	6.7			10	33.3	14	46.7	4	13.3	4.38	.85
Traveling to CDEs			2	6.7	2	6.7	9	30.0	14	46.7	3	10.0	4.30	.91
Supervising FFA chapter meetings			2	6.7	2	6.7	12	40.0	12	40.0	2	6.7	4.21	.88
Traveling to National Convention			2	6.7	2	6.7	9	30.0	9	30.0	8	26.7	4.14	.94
Supervising livestock projects			1	3.3	3	10.0	14	46.7	7	23.3	5	16.7	4.08	.76
Coaching CDE teams			2	6.7	2	6.7	17	56.7	8	26.7	1	3.3	4.07	.80
Attending county fair	1	3.3	1	3.3	2	6.7	14	46.7	8	26.7	4	13.3	4.04	.96
Conducting FFA recruitment activities			1	3.3	5	16.7	14	46.7	8	26.7	2	6.7	4.04	.79

Scale	1		2		3		4		5		6			
Descriptor	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable		<i>M</i>	<i>SD</i>
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Chapter officer elections			2	6.7	6	20.0	11	36.7	10	33.3	1	3.3	4.00	.93
Attending livestock shows			1	3.3	3	10.0	13	43.3	5	16.7	8	26.7	4.00	.76
Student mentorship and advising			2	6.7	3	10.0	17	56.7	7	23.3	1	3.3	4.00	.80
Conducting community service projects			3	10.0	2	6.7	16	53.3	8	26.7	1	3.3	4.00	.89
Chapter officer training	1	3.3	1	3.3	6	20.0	11	36.7	10	33.3	1	3.3	3.97	1.02
Monitoring FFA award applications			4	13.3	2	6.7	18	60.0	4	13.3	2	6.7	3.79	.88
Monitoring FFA degree applications			4	13.3	4	13.3	15	50.0	5	16.7	2	6.7	3.75	.93
Conducting FFA fundraisers	1	3.3	3	10.0	4	13.3	16	53.3	5	16.7	1	3.3	3.72	1.00
Acquiring CDE study resources			3	10.0	9	30.0	12	40.0	5	16.7	1	3.3	3.66	.90
Scheduling CDE practices			4	13.3	8	26.7	11	36.7	6	20.0	1	3.3	3.66	.97

Scale	1		2		3		4		5		6			
Descriptor	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable		<i>M</i>	<i>SD</i>
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Fulfilling CDE chair duties	1	3.3	4	13.3	7	23.3	6	20.0	8	26.7	4	13.3	3.62	1.20
Attending district meetings	2	6.7	4	13.3	5	16.7	10	33.3	7	23.3	2	6.7	3.57	1.23
Fulfilling District chair duties			5	16.7	9	30.0	6	20.0	6	20.0	4	13.3	3.50	1.07
Attending state fair			2	6.7	6	20.0	5	16.7	1	3.3	16	53.3	3.36	.84
Recruiting industry experts to coach/judge CDEs			13	43.3	9	30.0	2	6.7	2	6.7	4	13.3	2.73	.92

Finally, respondents were asked to rate their satisfaction with their SAE job responsibilities. “Monitoring school-based enterprises” received the highest satisfaction score ($M = 4.04$, $SD = 1.00$) and “Facilitating parental support of SAE” received the lowest satisfaction score ($M = 2.66$, $SD = 0.90$). Respondent satisfaction with their SAE job responsibilities is displayed below in descending order in Table 28.

Table 28*Perceived Satisfaction Level for SAE (n = 30)*

Scale	1		2		3		4		5		6		<i>M</i>	<i>SD</i>
	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable			
Descriptor	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Monitoring school-based enterprises	1	3.3	1	3.3	2	6.7	12	40.0	8	26.7	6	20.0	4.04	1.00
Monitoring SAE award applications			4	13.3	4	13.3	13	43.3	7	23.3	2	6.7	3.82	.98
Identifying SAE ideas for students			3	10.0	3	10.0	20	66.7	3	10.0	1	3.3	3.79	.77
Monitoring the Agricultural Experience Tracker (AET)			4	13.3	6	20.0	12	40.0	7	23.3	1	3.3	3.76	.99
Monitoring county and state fair activities			6	20.0	2	6.7	10	33.3	6	20.0	6	20.0	3.67	1.13
Forming industry partnerships	1	3.3	5	16.7	5	16.7	11	36.7	3	10.0	5	16.7	3.40	1.08
Conducting SAE visits	1	3.3	6	20.0	5	16.7	11	36.7	3	10.0	4	13.3	3.35	1.09
Attending SAE project county extension meetings	3	10.0	2	6.7	5	16.7	3	10.0	4	13.3	13	43.3	3.18	1.43
Making SAE relevant to all students	1	3.3	9	30.0	7	23.3	10	33.3	2	6.7	1	3.3	3.10	1.05

Scale	1		2		3		4		5		6			
Descriptor	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable		<i>M</i>	<i>SD</i>
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Monitoring internships	1	3.3	5	16.7	7	23.3	4	13.3	2	6.7	11	36.7	3.05	1.08
Monitoring SAE grants	2	6.7	4	13.3	9	30.0	6	20.0	1	3.3	8	26.7	3.00	1.02
Employing SAE for ALL	4	13.3	6	20.0	7	23.3	9	30.0	2	6.7	2	6.7	2.96	1.20
Identifying SAE financial resources for students	1	3.3	9	30.0	10	33.3	9	30.0			1	3.3	2.93	.88
Facilitating parental support of SAE	2	6.7	12	40.0	9	30.0	6	20.0			1	3.3	2.66	.90

Research Question Three: Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?

Respondents were asked to identify if they had participated in the AATA New Teacher Mentoring Program as either a mentor or a mentee. Respondents who identified as mentees were asked to rate their satisfaction with specific factors relating to their experience. The results showed that “Years of teaching experience of assigned mentor” had the highest satisfaction level ($M = 4.00$, $SD = 1.02$) and “Ability to select your mentor” received the lowest satisfaction score ($M = 2.57$, $SD = 1.16$). Respondent satisfaction with their mentee experience is displayed below in descending order in Table 29.

Table 29*Perceived Satisfaction of AATA Mentoring Program Mentee Experience Factors (n = 23)*

Scale	1		2		3		4		5		6		<i>M</i>	<i>SD</i>
	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable			
Descriptor	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Years of teaching experience of mentor	1	3.3			5	16.7	8	26.7	8	26.7	8	26.7	4.00	1.02
Topics offered in New Teacher Induction workshop series	1	3.3			4	13.3	8	26.7	6	20.0	11	36.7	3.95	1.03
New Teacher Induction workshop series	1	3.3	2	6.7	1	3.3	9	30.0	6	20.0	11	36.7	3.89	1.15
Age of mentor	1	3.3			6	20.0	9	30.0	6	20.0	8	26.7	3.86	.99
Gender of mentor	1	3.3			7	23.3	6	20.0	6	20.0	10	33.3	3.80	1.06
Attitude/personality of mentor	2	6.7	1	3.3	4	13.3	9	30.0	7	23.3	7	23.3	3.78	1.20
Mentor program proximity	1	3.3	3	10.0	5	16.7	7	23.3	7	23.3	7	23.3	3.70	1.19
Number of times contacted by mentor	3	10.0	3	10.0	5	16.7	9	30.0	3	10.0	7	23.3	3.26	1.25
Effectiveness of mentorship meetings	5	16.7			2	6.7	6	20.0	4	13.3	13	43.3	3.24	1.60

Scale	1		2		3		4		5		6			
Descriptor	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable		<i>M</i>	<i>SD</i>
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Electronic communication	3	10.0	5	16.7	2	6.7	12	40.0	1	3.3	7	23.3	3.13	1.22
Number of social gatherings to build mentoring relationships	3	10.0	4	13.3	3	10.0	6	20.0	3	10.0	11	36.7	3.11	1.37
In person communication	4	13.3	3	10.0	6	20.0	7	23.3	3	10.0	7	23.3	3.09	1.31
Traveling to mentorship meetings	5	16.7	1	3.3	2	6.7	4	13.3	1	3.3	17	56.7	2.62	1.50
Ability to select your mentor	3	10.0	3	10.0	6	20.0	1	3.3	1	3.3	16	53.3	2.57	1.16

Respondents who identified as mentors were also asked to rate their satisfaction with specific factors relating to their experience. The results showed that “Confidence in supporting traditionally certified mentees” had the highest satisfaction level ($M = 4.19$, $SD = 0.83$) and “Mentor training you received” had the lowest satisfaction score ($M = 3.15$, $SD = 1.28$). Respondent satisfaction with their mentor experience is displayed below in descending order in Table 30.

Table 30*Perceived Satisfaction of AATA Mentoring Program Mentor Experience Factors (n = 17)*

Scale	1		2		3		4		5		6		<i>M</i>	<i>SD</i>
	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable			
Descriptor	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Confidence in supporting traditionally certified mentees			1	3.3	1	3.3	8	26.7	6	20.0	14	46.7	4.19	.83
Electronic communication			1	3.3	1	3.3	10	33.3	5	16.7	13	43.3	4.12	.78
Confidence in supporting industry certified mentees			2	6.7	1	3.3	7	23.3	5	16.7	15	50.0	4.00	1.00
Gender of past mentees			1	3.3	4	13.3	6	20.0	6	20.0	13	43.3	4.00	.94
Attitude/personality of past mentees			1	3.3	4	13.3	7	23.3	5	16.7	13	43.3	3.94	.90
Number of times you contacted your mentee			1	3.3	2	6.7	11	36.7	3	10.0	13	43.3	3.94	.75
Effectiveness of mentorship meetings			1	3.3	3	10.0	6	20.0	4	13.3	16	53.3	3.93	.92
Mentor support you received from AATA			1	3.3	4	13.3	7	23.3	4	13.3	14	46.7	3.88	.89
Mentee program proximity	1	3.3	2	6.7			10	33.3	4	13.3	13	43.3	3.82	1.13

Scale	1		2		3		4		5		6		<i>M</i>	<i>SD</i>
	Extremely Dissatisfied		Dissatisfied		Neutral		Satisfied		Extremely Satisfied		Not Applicable			
Descriptor	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Mentee contact reminders from AATA			1	3.3	3	10.0	8	26.7	2	6.7	16	53.3	3.79	.80
Traveling to mentorship meetings			2	6.7			8	26.7	1	3.3	19	63.3	3.73	.91
In person communication			4	13.3	1	3.3	8	26.7	4	13.3	13	43.3	3.71	1.11
Number of social gatherings to build mentoring relationships			3	10.0	4	13.3	6	20.0	2	6.7	15	50.0	3.47	.99
Monetary compensation			1	3.3	4	13.3	3	10.0			22	73.3	3.25	.71
Mentor training you received	1	3.3	4	13.3	2	6.7	4	13.3	2	6.7	17	56.7	3.15	1.28

Research Question Four: Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?

Degree Type

SPSS calculated descriptive statistics to determine the effect of Degree Type (bachelor’s or master’s degree) on Classroom Instruction job responsibility satisfaction. For respondents with bachelor’s degrees, “Setting the classroom environment” received the highest satisfaction score ($M = 4.46$, $SD = 0.97$) and “Parent/Teacher conferencing” received the lowest satisfaction

score ($M = 2.85$, $SD = 1.23$). The full list of bachelor's degree respondent satisfaction with their Classroom Instruction job responsibilities is displayed below in descending order in Table 31.

Table 31*Classroom Instruction Job Responsibility Satisfaction by Bachelor's Degree (n = 14)*

Job Responsibility	Bachelor's Degree	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.46	.97
Hands on lesson plans	4.38	.96
Designing lab activities	4.31	.75
Managing classroom expectations	4.23	.60
Managing classroom behavior	4.15	.69
Lesson delivery	4.08	.86
Keeping lessons current and relevant	4.08	.49
Maintaining curriculum certifications	4.00	.71
Maintaining land lab facilities	3.85	1.14
Maintaining equipment to teach all standards	3.85	.99
Using technology	3.85	.80
Grading	3.77	1.24
Professional membership duties	3.62	1.12
301 duties	3.54	1.27
Making purchase requests	3.46	1.33
Advisory board meetings	3.46	1.05
IEP/504 differentiation	3.23	1.09
Assisting with district and state assessments	3.15	1.21
Parent/Teacher conferencing	2.85	1.23

For respondents with master's degrees, "Setting the classroom environment" also received the highest satisfaction score ($M = 4.44$, $SD = 0.63$), indicating a similarity between teachers with bachelor's degrees and teachers with master's degrees in the item they found most satisfying in Classroom Instruction. "Maintaining equipment to teach all standards" received the lowest satisfaction score ($M = 3.00$, $SD = 1.10$). The full list of master's degree respondent satisfaction with their Classroom Instruction job responsibilities is displayed below in descending order in Table 32.

Table 32*Classroom Instruction Job Responsibility Satisfaction by Master's Degree (n = 16)*

Job Responsibility	Master's Degree	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.44	.63
Managing classroom expectations	4.38	.62
Lesson delivery	4.25	.68
Managing classroom behavior	4.19	.75
Hands on lesson plans	4.13	.89
Designing lab activities	4.06	.77
Using technology	4.06	.68
Making purchase requests	4.00	.82
Professional membership duties	4.00	.73
Keeping lessons current and relevant	4.00	.52
Maintaining curriculum certifications	3.94	.57
301 duties	3.93	.73
Maintaining land lab facilities	3.87	.92
Grading	3.63	1.26
IEP/504 differentiation	3.63	.89
Advisory board meetings	3.50	1.10
Parent/Teacher conferencing	3.40	.91
Assisting with district and state assessments	3.38	1.15
Maintaining equipment to teach all standards	3.00	1.10

SPSS calculated descriptive statistics to determine the effect of Degree Type (bachelor's or master's degree) on FFA job responsibility satisfaction. For respondents with bachelor's degrees, "Traveling to state association conferences" received the highest satisfaction score ($M = 4.45$, $SD = 0.82$) and "Attending state fair" received the lowest satisfaction score ($M = 3.33$, $SD = 1.03$). The results for FFA job responsibility satisfaction by bachelor's degree can be seen in descending order in Table 33.

Table 33*FFA Job Responsibility Satisfaction by Bachelor's Degree (n = 14)*

Job Responsibility	Bachelor's Degree	
	<i>M</i>	<i>SD</i>
Traveling to state association conferences	4.45	.82
Hosting chapter banquet	4.42	.90
Supervising livestock projects	4.42	.52
Traveling to CDEs	4.33	1.00
Supervising FFA chapter meetings	4.31	.86
Traveling to state convention	4.25	1.06
Attending livestock shows	4.18	.60
Conducting FFA recruitment activities	4.17	.84
Traveling to National Convention	4.09	1.04
Attending county fair	4.08	1.17
Chapter officer elections	4.08	.95
Conducting community service projects	4.00	1.00
Coaching CDE teams	4.00	.82
Chapter officer training	3.92	1.19
Student mentorship and advising	3.92	1.04
Conducting FFA fundraisers	3.92	.86
Monitoring FFA award applications	3.77	.93
Fulfilling CDE chair duties	3.73	1.01
Monitoring FFA degree applications	3.69	.95
Recruiting industry experts to coach/judge CDEs	2.64	.92
Scheduling CDE practices	3.62	1.04

Job Responsibility	Bachelor's Degree	
	<i>M</i>	<i>SD</i>
Attending district meetings	3.58	1.24
Acquiring CDE study resources	3.54	.78
Fulfilling district chair duties	3.36	1.12
Attending state fair	3.33	1.03

For respondents with master's degrees, "Traveling to state convention" received the highest satisfaction score ($M = 4.57, SD = 0.51$) and "Recruiting industry experts to coach/judge CDEs" received the lowest satisfaction score ($M = 2.80, SD = 0.94$). "Hosting chapter banquet" was identified as the second highest satisfaction score for both bachelor's and master's degree teachers. The results for FFA job responsibility satisfaction by master's degree can be seen in descending order in Table 34.

Table 34*FFA Job Responsibility Satisfaction by Master's Degree (n = 16)*

Job Responsibility	Master's Degree	
	<i>M</i>	<i>SD</i>
Traveling to state convention	4.57	.51
Hosting chapter banquet	4.36	.84
Traveling to state association conferences	4.36	.63
Traveling to CDEs	4.27	.88
Traveling to National Convention	4.18	.87
Supervising FFA chapter meetings	4.13	.92
Coaching CDE teams	4.13	.81
Student mentorship and advising	4.06	.57
Chapter officer training	4.00	.89
Conducting community service projects	4.00	.82
Attending county fair	4.00	.78
Chapter officer elections	3.94	.93
Conducting FFA recruitment activities	3.94	.77
Attending livestock shows	3.82	.87
Monitoring FFA degree applications	3.80	.94
Monitoring FFA award applications	3.80	.86
Supervising livestock projects	3.77	.83
Acquiring CDE study resources	3.75	1.00
Scheduling CDE practices	3.69	.95
Fulfilling district chair duties	3.60	1.06
Attending district meetings	3.56	1.26

Job Responsibility	Master's Degree	
	<i>M</i>	<i>SD</i>
Conducting FFA fundraisers	3.56	1.09
Fulfilling CDE chair duties	3.53	1.36
Attending state fair	3.38	.74
Recruiting industry experts to coach/judge CDEs	2.80	.94

SPSS calculated descriptive statistics to determine the effect of Degree Type (bachelor's or master's degree) on SAE job responsibility satisfaction. For respondents with bachelor's degrees, "Monitoring SAE award applications" received the highest satisfaction score ($M = 4.00$, $SD = 0.82$) and "Facilitating parental support of SAE" received the lowest satisfaction score ($M = 2.69$, $SD = 0.86$). The results for SAE job responsibility satisfaction by bachelor's degree can be seen in descending order in Table 35.

Table 35*SAE Job Responsibility Satisfaction by Bachelor's Degree (n = 14)*

Job Responsibility	Bachelor's Degree	
	<i>M</i>	<i>SD</i>
Monitoring SAE award applications	4.00	.82
Monitoring the Agricultural Experience Tracker (AET)	3.85	1.00
Monitoring school-based enterprises	3.80	1.23
Monitoring county and state fair activities	3.75	1.22
Identifying SAE ideas for students	3.62	.77
Forming industry partnerships	3.45	1.21
Conducting SAE visits	3.42	1.00
Making SAE relevant to all students	3.38	.87
Attending SAE project county extension meetings	3.30	1.57
Identifying SAE financial resources for students	3.15	.80
Monitoring internships	3.00	.93
Employing SAE for ALL	2.83	1.40
Monitoring SAE grants	2.70	.82
Facilitating parental support of SAE	2.69	.86

For respondents with master's degrees, "Monitoring school-based enterprises" received the highest satisfaction score ($M = 4.21$, $SD = 0.80$). As found with teachers with bachelor's degrees, "Facilitating parental support of SAE" received the lowest satisfaction score ($M = 2.63$, $SD = 0.96$). The results for SAE job responsibility satisfaction by master's degree can be seen in descending order in Table 36.

Table 36*SAE Job Responsibility Satisfaction by Master's Degree (n = 16)*

Job Responsibility	Master's Degree	
	<i>M</i>	<i>SD</i>
Monitoring school-based enterprises	4.21	.80
Identifying SAE ideas for students	3.94	.77
Monitoring the Agricultural Experience Tracker (AET)	3.69	1.01
Monitoring SAE award applications	3.67	1.11
Monitoring county and state fair activities	3.58	1.08
Forming industry partnerships	3.36	1.01
Conducting SAE visits	3.29	1.20
Monitoring SAE grants	3.25	1.14
Monitoring internships	3.09	1.22
Employing SAE for ALL	3.06	1.06
Attending SAE project county extension meetings	3.00	1.29
Making SAE relevant to all students	2.88	1.15
Identifying SAE financial resources for students	2.75	.93
Facilitating parental support of SAE	2.63	.96

Certification Type

SPSS calculated descriptive statistics to determine the effect of Certification Type (traditional or industry certification) on Classroom Instruction job responsibility satisfaction. For traditionally certified respondents, “Setting the classroom environment” received the highest satisfaction score ($M = 4.44$, $SD = 0.77$) and “Parent/Teacher conferencing” received the lowest

satisfaction score ($M = 3.04$, $SD = 1.08$). These results can be seen in descending order on Table 37.

Table 37*Classroom Instruction Job Responsibility Satisfaction by Traditional Certification (n = 25)*

Job Responsibility	Traditional Certification	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.44	.77
Hands on lesson plans	4.36	.81
Managing classroom expectations	4.28	.61
Designing lab activities	4.20	.76
Lesson delivery	4.20	.76
Managing classroom behavior	4.08	.70
Keeping lessons current and relevant	4.04	.54
Using technology	4.00	.71
Maintaining curriculum certifications	3.96	.61
Maintaining land lab facilities	3.88	1.04
Professional membership duties	3.76	.97
Making purchase requests	3.72	1.14
301 duties	3.71	1.04
Grading	3.48	1.19
Advisory board meetings	3.40	1.08
Maintaining equipment to teach all standards	3.32	1.15
IEP/504 differentiation	3.32	.95
Assisting with district and state assessments	3.20	1.23
Parent/Teacher conferencing	3.04	1.08

For industry certified respondents, “Grading” received the highest satisfaction score ($M = 5.00$, $SD = 0.00$) and “Hands on lesson plans” received the lowest satisfaction score ($M = 3.50$, $SD = 1.29$). The results for Classroom Instruction job responsibility satisfaction by industry certification can be seen in descending order on Table 38.

Table 38*Classroom Instruction Job Responsibility Satisfaction by Industry Certification (n = 5)*

Job Responsibility	Industry Certification	
	<i>M</i>	<i>SD</i>
Grading	5.00	.00
Managing classroom behavior	4.75	.50
Setting the classroom environment	4.50	1.00
Managing classroom expectations	4.50	.58
IEP/504 differentiation	4.25	.96
Professional membership duties	4.25	.50
301 duties	4.00	1.00
Designing lab activities	4.00	.82
Lesson delivery	4.00	.82
Advisory board meetings	4.00	.82
Making purchase requests	4.00	.82
Maintaining curriculum certifications	4.00	.82
Keeping lessons current and relevant	4.00	.00
Using technology	3.75	.96
Parent/Teacher conferencing	3.75	.96
Maintaining equipment to teach all standards	3.75	.96
Maintaining land lab facilities	3.75	.96
Assisting with district and state assessments	3.75	.50
Hands on lesson plans	3.50	1.29

SPSS calculated descriptive statistics to determine the effect of Certification Type (traditional or industry certification) on FFA job responsibility satisfaction. For traditionally certified respondents, “Traveling to state convention” received the highest satisfaction score ($M = 4.41, SD = 0.80$) and “Recruiting industry experts to coach/judge CDEs” received the lowest satisfaction score ($M = 2.73, SD = 0.94$). These results can be seen in descending order on Table 39.

Table 39*FFA Job Responsibility Satisfaction by Traditional Certification (n = 25)*

Job Responsibility	Traditional Certification	
	<i>M</i>	<i>SD</i>
Traveling to state convention	4.41	.80
Traveling to state association conferences	4.33	.73
Traveling to CDEs	4.30	.93
Hosting chapter banquet	4.27	.88
Traveling to National Convention	4.17	1.00
Supervising FFA chapter meetings	4.17	.92
Coaching CDE teams	4.08	.81
Conducting FFA recruitment activities	4.08	.78
Supervising livestock projects	4.00	.78
Chapter officer training	3.96	1.02
Chapter officer elections	3.96	.98
Conducting community service projects	3.96	.94
Student mentorship and advising	3.96	.84
Attending county fair	3.95	1.00
Attending livestock shows	3.89	.76
Scheduling CDE practices	3.72	1.02
Conducting FFA fundraisers	3.68	1.03
Monitoring FFA award applications	3.67	.87
Attending district meetings	3.63	1.17
Monitoring FFA degree applications	3.63	.92
Fulfilling CDE chair duties	3.61	1.23

Job Responsibility	Traditional Certification	
	<i>M</i>	<i>SD</i>
Acquiring CDE study resources	3.56	.87
Fulfilling district chair duties	3.55	1.06
Attending state fair	3.40	.97
Recruiting industry experts to coach/judge CDEs	2.73	.94

For industry certified respondents, “Hosting chapter banquet” received the highest satisfaction score ($M = 5.00, SD = 0.00$) and “Attending state fair” received the lowest satisfaction score ($M = 3.25, SD = .50$). Table 40 displays these results in descending order.

Table 40*FFA Job Responsibility Satisfaction by Industry Certification (n = 5)*

Job Responsibility	Industry Certification	
	<i>M</i>	<i>SD</i>
Hosting chapter banquet	5.00	.00
Traveling to state association conferences	4.75	.50
Traveling to state convention	4.50	1.00
Monitoring FFA degree applications	4.50	.58
Monitoring FFA award applications	4.50	.58
Supervising FFA chapter meetings	4.50	.58
Attending livestock shows	4.50	.58
Supervising livestock projects	4.50	.58
Attending county fair	4.50	.58
Traveling to CDEs	4.25	.96
Acquiring CDE study resources	4.25	.96
Student mentorship and advising	4.25	.50
Chapter officer elections	4.25	.50
Conducting community service projects	4.25	.50
Chapter officer training	4.00	1.16
Traveling to National Convention	4.00	.82
Conducting FFA fundraisers	4.00	.82
Coaching CDE teams	4.00	.82
Conducting FFA recruitment activities	3.75	.96
Recruiting industry experts to coach/judge CDEs	2.75	.96
Fulfilling CDE chair duties	3.67	1.16

Job Responsibility	Industry Certification	
	<i>M</i>	<i>SD</i>
Attending district meetings	3.25	1.71
Fulfilling district chair duties	3.25	1.26
Scheduling CDE practices	3.25	.50
Attending state fair	3.25	.50

SPSS calculated descriptive statistics to determine the effect of Certification Type (traditional or industry certification) on SAE job responsibility satisfaction. For traditionally certified respondents, “Monitoring school-based enterprises” received the highest satisfaction score ($M = 4.19, SD = 0.75$) and “Facilitating parental support of SAE” received the lowest satisfaction score ($M = 2.68, SD = 0.96$). This can be seen below in descending order on Table 41.

Table 41*SAE Job Responsibility Satisfaction by Traditional Certification (n = 25)*

Job Responsibility	Traditional Certification	
	<i>M</i>	<i>SD</i>
Monitoring school-based enterprises	4.19	.75
Monitoring the Agricultural Experience Tracker (AET)	3.72	1.02
Identifying SAE ideas for students	3.72	.79
Monitoring SAE award applications	3.71	1.00
Monitoring county and state fair activities	3.55	1.15
Forming industry partnerships	3.43	.98
Conducting SAE visits	3.41	1.05
Attending SAE project county extension meetings	3.14	1.35
Making SAE relevant to all students	3.08	1.08
Monitoring internships	3.06	.94
Monitoring SAE grants	2.95	.97
Employing SAE for ALL	2.88	1.19
Identifying SAE financial resources for students	2.84	.90
Facilitating parental support of SAE	2.68	.96

For industry certified respondents, “Monitoring SAE award applications” received the highest satisfaction score ($M = 4.50$, $SD = 0.58$). As found for traditionally certified teachers, “Facilitating parental support of SAE” also received the lowest satisfaction score ($M = 2.50$, $SD = 0.58$). This can be seen below in descending order on Table 42.

Table 42*SAE Job Responsibility Satisfaction by Industry Certification (n = 5)*

Job Responsibility	Industry Certification	
	<i>M</i>	<i>SD</i>
Monitoring SAE award applications	4.50	.58
Monitoring county and state fair activities	4.25	.96
Identifying SAE ideas for students	4.25	.50
Monitoring the Agricultural Experience Tracker (AET)	4.00	.82
Employing SAE for ALL	3.50	1.29
Identifying SAE financial resources for students	3.50	.58
Attending SAE project county extension meetings	3.33	2.08
Monitoring SAE grants	3.33	1.53
Forming industry partnerships	3.25	1.71
Making SAE relevant to all students	3.25	.96
Monitoring internships	3.00	2.00
Monitoring school-based enterprises	3.00	2.00
Conducting SAE visits	3.00	1.41
Facilitating parental support of SAE	2.50	.58

Years of Experience

SPSS calculated descriptive statistics to determine the effect of Years of Experience (Early Teacher vs. Late teacher) on Classroom Instruction job responsibility satisfaction.

Definitions for early and late year teachers were taken from the AATA policy manual which defines an early teacher as those in years one through five of teaching, and late year teachers as those in years six and beyond (Arizona Agriculture Teachers Association, 2014). For

respondents who were Early Teachers, “Setting the classroom environment” received the highest satisfaction score ($M = 4.54, SD = 0.78$) and “Parent/Teacher conferencing” received the lowest satisfaction score ($M = 2.92, SD = 1.00$). The results for Early Teacher Classroom Instruction job responsibility satisfaction can be seen in descending order in Table 43.

Table 43*Classroom Instruction Job Responsibility Satisfaction by Early Teachers (Years 1-5) (n = 14)*

Job Responsibility	Early Teachers (Years 1-5)	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.54	.78
Managing classroom expectations	4.31	.63
Hands on lesson plans	4.15	.69
Managing classroom behavior	4.08	.76
Keeping lessons current and relevant	4.00	.71
Using technology	3.92	.86
Professional membership duties	3.85	.80
Designing lab activities	3.85	.80
Lesson delivery	3.85	.56
Maintaining curriculum certifications	3.77	.60
301 duties	3.69	.75
Grading	3.62	1.33
Making purchase requests	3.62	1.26
Maintaining land lab facilities	3.54	1.13
Maintaining equipment to teach all standards	3.38	1.19
Advisory board meetings	3.15	1.07
Assisting with district and state assessments	3.15	1.06
IEP/504 differentiation	3.15	.90
Parent/Teacher conferencing	2.92	1.00

For respondents who were Late Teachers, “Lesson Delivery” received the highest satisfaction score ($M = 4.44$, $SD = 0.81$). As was found for Early Teachers, “Parent/Teacher conferencing” also received the lowest satisfaction score for Late Teachers ($M = 3.31$, $SD = 1.14$). The results for Late Teacher Classroom Instruction job responsibility satisfaction can be seen in descending order in Table 44.

Table 44*Classroom Instruction Job Responsibility Satisfaction by Late Teachers (Years 6+) (n = 16)*

Job Responsibility	Late Teachers (Years 6+)	
	<i>M</i>	<i>SD</i>
Lesson delivery	4.44	.81
Designing lab activities	4.44	.63
Setting the classroom environment	4.38	.81
Hands on lesson plans	4.31	1.08
Managing classroom expectations	4.31	.60
Managing classroom behavior	4.25	.68
Maintaining lab facilities	4.13	.83
Maintaining curriculum certifications	4.13	.62
Keeping lessons current and relevant	4.06	.25
Using technology	4.00	.63
Making purchase requests	3.88	.96
Professional membership duties	3.81	1.05
301 duties	3.79	1.25
Grading	3.75	1.18
Advisory board meetings	3.75	1.00
IEP/504 differentiation	3.69	1.01
Assisting with district and state assessments	3.38	1.26
Maintaining equipment to teach all standards	3.38	1.09
Parent/Teacher conferencing	3.31	1.14

SPSS calculated descriptive statistics to determine the effect of Years of Experience (Early Teacher vs. Late teacher) on FFA job responsibility satisfaction. For respondents who were Early Teachers, “Hosting chapter banquet” received the highest satisfaction score ($M = 4.50$, $SD = 0.53$) and “Recruiting industry experts to coach/judge CDEs” received the lowest satisfaction score ($M = 2.58$, $SD = 0.52$). The results for Early Teacher FFA job responsibility satisfaction can be seen in descending order in Table 45.

Table 45*FFA Job Responsibility Satisfaction by Early Teachers (Years 1-5) (n = 14)*

Job Responsibility	Early Teachers (Years 1-5)	
	<i>M</i>	<i>SD</i>
Hosting chapter banquet	4.50	.53
Traveling to state convention	4.45	.82
Traveling to state association conferences	4.36	.81
Traveling to CDEs	4.33	.99
Supervising livestock projects	4.27	.65
Attending county fair	4.17	.84
Attending livestock shows	4.09	.54
Student mentorship and advising	4.08	.76
Traveling to National Convention	4.00	1.12
Supervising FFA chapter meetings	4.00	.91
Chapter officer elections	3.92	.95
Conducting community service projects	3.92	.76
Coaching CDE teams	3.85	.80
Chapter officer training	3.85	.80
Attending state fair	3.83	.75
Conducting FFA fundraisers	3.77	.73
Conducting FFA recruitment activities	3.69	.95
Monitoring FFA award applications	3.67	.78
Monitoring FFA degree applications	3.58	.79
Attending district meetings	3.46	.88
Scheduling CDE practices	3.31	.95

Job Responsibility	Early Teachers (Years 1-5)	
	<i>M</i>	<i>SD</i>
Acquiring CDE study resources	3.31	.75
Fulfilling district chair duties	3.18	.87
Fulfilling CDE chair duties	3.00	1.21
Recruiting industry experts to coach/judge CDEs	2.58	.52

For respondents who were Late Teachers, “Traveling to state association conferences” received the highest satisfaction score ($M = 4.43$, $SD = 0.65$). “Recruiting industry experts to coach/judge CDEs” received the lowest satisfaction score ($M = 2.86$, $SD = 1.17$) for Late Teachers, similar to that which was found with Early Teachers. These results can be seen in descending order in Table 46.

Table 46*FFA Job Responsibility Satisfaction by Late Teachers (Years 6+) (n = 16)*

Job Responsibility	Late Teachers (Years 6+)	
	<i>M</i>	<i>SD</i>
Traveling to state association conferences	4.43	.65
Traveling to state convention	4.40	.83
Supervising FFA chapter meetings	4.40	.83
Conducting FFA recruitment activities	4.33	.49
Hosting chapter banquet	4.31	1.01
Traveling to CDEs	4.27	.88
Coaching CDE teams	4.25	.78
Traveling to National Convention	4.23	.83
Fulfilling CDE chair duties	4.14	.95
Chapter officer training	4.06	1.18
Conducting community service projects	4.06	1.00
Chapter officer elections	4.06	.93
Scheduling CDE practices	3.94	.93
Acquiring CDE study resources	3.94	.93
Student mentorship and advising	3.94	.85
Attending county fair	3.93	1.07
Supervising livestock projects	3.93	.83
Attending livestock shows	3.91	.94
Monitoring FFA degree applications	3.88	1.03
Monitoring FFA award applications	3.88	.96
Fulfilling district chair duties	3.73	1.16

Job Responsibility	Late Teachers (Years 6+)	
	<i>M</i>	<i>SD</i>
Conducting FFA fundraisers	3.69	1.20
Attending district meetings	3.67	1.50
Attending state fair	3.00	.76
Recruiting industry experts to coach/judge CDEs	2.86	1.17

SPSS calculated descriptive statistics to determine the effect of Years of Experience (Early Teacher vs. Late teacher) on SAE job responsibility satisfaction. For respondents who were Early Teachers, “Monitoring school-based enterprises” received the highest satisfaction score ($M = 3.82$, $SD = 1.17$) and “Monitoring SAE grants” received the lowest satisfaction score ($M = 2.73$, $SD = 0.91$). The results for Early Teacher SAE job responsibility satisfaction can be seen in descending order in Table 47.

Table 47*SAE Job Responsibility Satisfaction by Early Teachers (Years 1-5) (n = 14)*

Job Responsibility	Early Teachers (Years 1-5)	
	<i>M</i>	<i>SD</i>
Monitoring school-based enterprises	3.82	1.17
Monitoring the Agricultural Experience Tracker (AET)	3.77	.83
Monitoring SAE award applications	3.75	.75
Monitoring county and state fair activities	3.64	1.21
Identifying SAE ideas for students	3.62	.87
Making SAE relevant to all students	3.54	.97
Employing SAE for ALL	3.50	.91
Conducting SAE visits	3.42	.79
Attending SAE project county extension meetings	3.33	1.32
Identifying SAE financial resources for students	3.08	.64
Monitoring internships	3.00	1.29
Forming industry partnerships	3.00	1.05
Facilitating parental support of SAE	2.77	.93
Monitoring SAE grants	2.73	.91

For respondents who were Late Teachers, “Monitoring school-based enterprises” received the highest satisfaction score ($M = 4.23$, $SD = 0.83$), the same as was found with Early Teachers. “Facilitating parental support of SAE” received the lowest satisfaction score ($M = 2.56$, $SD = 0.89$). These results can be seen in descending order in Table 48.

Table 48*SAE Job Responsibility Satisfaction by Late Teachers (Years 6+) (n = 16)*

Job Responsibility	Late Teachers (Years 6+)	
	<i>M</i>	<i>SD</i>
Monitoring school-based enterprises	4.23	.83
Identifying SAE ideas for students	3.94	.68
Monitoring SAE award applications	3.88	1.15
Monitoring the Agricultural Experience Tracker (AET)	3.75	1.13
Monitoring county and state fair activities	3.69	1.11
Forming industry partnerships	3.67	1.05
Conducting SAE visits	3.29	1.33
Monitoring SAE grants	3.27	1.10
Monitoring internships	3.08	1.00
Attending SAE project county extension meetings	3.00	1.60
Identifying SAE financial resources for students	2.81	1.04
Making SAE relevant to all students	2.75	1.00
Employing SAE for ALL	2.56	1.26
Facilitating parental support of SAE	2.56	.89

Race

SPSS calculated descriptive statistics to determine the effect of Race (Caucasian or Hispanic) on Classroom Instruction job responsibility satisfaction. For Caucasian respondents, “Setting the classroom environment” received the highest satisfaction score ($M = 4.42$, $SD = 0.81$) and “Parent/Teacher conferencing” received the lowest satisfaction score ($M = 3.20$, $SD = 1.08$). These results can be seen in descending order in Table 49.

Table 49*Classroom Instruction Job Responsibility Satisfaction by Caucasian Teachers (n = 27)*

Job Responsibility	Caucasian Teachers	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.42	.81
Managing classroom expectations	4.31	.62
Hands on lesson plans	4.19	.94
Lesson delivery	4.19	.80
Designing lab activities	4.15	.78
Managing classroom behavior	4.15	.73
Keeping lessons current and relevant	4.08	.48
Maintaining lab facilities	4.04	.89
Maintaining curriculum certifications	4.00	.63
Using technology	3.92	.70
Making purchase requests	3.85	1.01
Grading	3.77	1.18
Professional membership duties	3.77	.95
301 duties	3.71	1.04
Advisory board meetings	3.50	1.03
IEP/504 differentiation	3.50	.99
Assisting with district and state assessments	3.35	1.13
Maintaining equipment to teach all standards	3.35	1.09
Parent/Teacher conferencing	3.20	1.08

For Hispanic respondents, “Setting the classroom environment” also received the highest satisfaction score ($M = 4.67, SD = 0.58$), indicating a similarity between Hispanic and Caucasian teachers. “Maintaining land lab facilities” received the lowest satisfaction score ($M = 2.33, SD = 0.58$). These results can be seen in descending order in Table 50.

Table 50*Classroom Instruction Job Responsibility Satisfaction by Hispanic Teachers (n = 3)*

Job Responsibility	Hispanic Teachers	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.67	.58
Hands on lesson plans	4.67	.58
Using technology	4.33	1.16
Designing lab activities	4.33	.58
Managing classroom expectations	4.33	.58
Managing classroom behavior	4.33	.58
Professional membership duties	4.33	.58
301 duties	4.00	1.00
Lesson delivery	4.00	.00
Maintaining equipment to teach all standards	3.67	1.53
Maintaining curriculum certifications	3.67	.58
Keeping lessons current and relevant	3.67	.58
Advisory board meetings	3.33	1.53
Grading	3.00	1.73
Making purchase requests	3.00	1.73
IEP/504 differentiation	3.00	1.00
Assisting with district and state assessments	2.67	1.53
Parent/Teacher conferencing	2.67	1.16
Maintaining land lab facilities	2.33	.58

SPSS calculated descriptive statistics to determine the effect of Race (Caucasian or Hispanic) on FFA job responsibility satisfaction. For Caucasian respondents, “Hosting chapter banquet” received the highest satisfaction score ($M = 4.46$, $SD = 0.72$) and “Recruiting industry experts to coach/judge CDEs” received the lowest satisfaction score ($M = 2.78$, $SD = 0.95$). Evidence of these results can be seen in descending order on Table 51.

Table 51*FFA Job Responsibility Satisfaction by Caucasian Teachers (n = 27)*

Job Responsibility	Caucasian Teachers	
	<i>M</i>	<i>SD</i>
Hosting chapter banquet	4.46	.72
Traveling to state convention	4.39	.84
Traveling to state association conferences	4.36	.78
Traveling to CDEs	4.29	.91
Supervising FFA chapter meetings	4.24	.78
Traveling to National Convention	4.10	.97
Supervising livestock projects	4.09	.75
Conducting community service projects	4.08	.85
Attending county fair	4.04	.98
Chapter officer training	4.04	.96
Chapter officer elections	4.04	.92
Coaching CDE teams	4.04	.82
Student mentorship and advising	4.00	.80
Conducting FFA recruitment activities	3.96	.79
Attending livestock shows	3.95	.76
Conducting FFA fundraisers	3.85	.88
Monitoring FFA degree applications	3.76	.97
Monitoring FFA award applications	3.76	.93
Scheduling CDE practices	3.69	.93
Acquiring CDE study resources	3.69	.93
Fulfilling CDE chair duties	3.63	1.17

Job Responsibility	Caucasian Teachers	
	<i>M</i>	<i>SD</i>
Attending district meetings	3.56	1.28
Fulfilling district chair duties	3.50	1.02
Attending state fair	3.23	.73
Recruiting industry experts to coach/judge CDEs	2.78	.95

For Hispanic respondents, “Attending state fair” received the highest satisfaction score ($M = 5.00$, $SD = 0.00$). As was found for Caucasian teachers, “Recruiting industry experts to coach/judge CDEs” received the lowest satisfaction score among Hispanic teachers ($M = 2.33$, $SD = 0.58$). These results can be seen in descending order on Table 52.

Table 52*FFA Job Responsibility Satisfaction by Hispanic Teachers (n = 3)*

Job Responsibility	Hispanic Teachers	
	<i>M</i>	<i>SD</i>
Attending state fair	5.00	.00
Traveling to state convention	4.67	.58
Traveling to state association conferences	4.67	.58
Conducting FFA recruitment activities	4.67	.58
Attending livestock shows	4.50	.71
Traveling to National Convention	4.50	.71
Traveling to CDEs	4.33	1.16
Coaching CDE teams	4.33	.58
Supervising FFA chapter meetings	4.00	1.73
Supervising livestock projects	4.00	1.00
Attending county fair	4.00	1.00
Student mentorship and advising	4.00	1.00
Monitoring FFA award applications	4.00	.00
Attending district meetings	3.67	1.53
Chapter officer elections	3.67	1.16
Monitoring FFA degree applications	3.67	.58
Hosting chapter banquet	3.50	2.12
Fulfilling CDE chair duties	3.50	2.12
Fulfilling district chair duties	3.50	1.07
Scheduling CDE practices	3.33	1.53
Acquiring CDE study resources	3.33	.58

Job Responsibility	Hispanic Teachers	
	<i>M</i>	<i>SD</i>
Chapter officer training	3.33	1.53
Conducting community service projects	3.33	1.16
Conducting FFA fundraisers	2.67	1.53
Recruiting industry experts to coach/judge CDEs	2.33	.58

SPSS calculated descriptive statistics to determine the effect of Race (Caucasian or Hispanic) on SAE job responsibility satisfaction. For Caucasian respondents, “Monitoring school-based enterprises” received the highest satisfaction score ($M = 4.09$, $SD = 0.92$) and “Facilitating parental support of SAE” received the lowest satisfaction score ($M = 2.65$, $SD = 0.85$). Evidence of these results can be seen in descending order on Table 53.

Table 53*SAE Job Responsibility Satisfaction by Caucasian Teachers (n = 27)*

Job Responsibility	Caucasian Teachers	
	<i>M</i>	<i>SD</i>
Monitoring school-based enterprises	4.09	.92
Identifying SAE ideas for students	3.92	.69
Monitoring SAE award applications	3.84	.94
Monitoring the Agricultural Experience Tracker (AET)	3.77	.95
Monitoring county and state fair activities	3.68	1.09
Forming industry partnerships	3.48	1.08
Conducting SAE visits	3.43	1.04
Monitoring SAE grants	3.21	.86
Making SAE relevant to all students	3.19	.98
Employing SAE for ALL	3.08	1.19
Attending SAE project county extension meetings	3.07	1.44
Monitoring internships	3.06	1.11
Identifying SAE financial resources for students	3.00	.85
Facilitating parental support of SAE	2.65	.85

For Hispanic respondents, “Attending SAE project county extension meetings” received the highest satisfaction score ($M = 4.00$, $SD = 1.41$) and “Monitoring SAE grants” received the lowest satisfaction score ($M = 1.67$, $SD = 1.16$). These results can be seen in descending order on Table 54.

Table 54*SAE Job Responsibility Satisfaction by Hispanic Teachers (n = 3)*

Job Responsibility	Hispanic Teachers	
	<i>M</i>	<i>SD</i>
Attending SAE project county extension meetings	4.00	1.41
Monitoring the Agricultural Experience Tracker (AET)	3.67	1.53
Monitoring SAE award applications	3.67	1.53
Monitoring county and state fair activities	3.50	2.12
Monitoring school-based enterprises	3.50	2.12
Monitoring internships	3.00	.00
Conducting SAE visits	2.67	1.53
Facilitating parental support of SAE	2.67	1.53
Identifying SAE ideas for students	2.67	.58
Forming industry partnerships	2.50	.71
Making SAE relevant to all students	2.33	1.53
Identifying SAE financial resources for students	2.33	1.16
Employing SAE for ALL	2.00	1.00
Monitoring SAE grants	1.67	1.16

Marital Status

SPSS calculated descriptive statistics to determine the effect of Marital Status (Single or Married) on Classroom Instruction job responsibility satisfaction. For single respondents, “Setting the classroom environment” received the highest satisfaction score ($M = 4.27$, $SD = 1.01$) and “Parent/Teacher conferencing” received the lowest satisfaction score ($M = 2.50$, $SD =$

0.85). The results for Classroom Instruction job responsibility satisfaction by Marital Status can be seen in descending order in Table 55.

Table 55*Classroom Instruction Job Responsibility Satisfaction by Single Teachers (n = 13)*

Job Responsibility	Single Teachers	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.27	1.01
Hands on lesson plans	4.18	.98
Using technology	4.09	.83
Managing classroom expectations	4.09	.70
Designing lab activities	4.00	.89
Keeping lessons current and relevant	4.00	.78
Professional membership duties	3.91	.70
Lesson delivery	3.73	.80
Managing classroom behavior	3.73	.65
Maintaining curriculum certifications	3.73	.47
Maintaining equipment to teach all standards	3.55	1.13
Maintaining land lab facilities	3.45	1.29
Making purchase requests	3.45	1.21
301 duties	3.36	.81
Grading	3.09	1.38
Assisting with district and state assessments	3.09	1.30
Advisory board meetings	2.91	.94
IEP/504 differentiation	2.73	.91
Parent/Teacher conferencing	2.50	.85

For married respondents, “Setting the classroom environment” also received the highest satisfaction score ($M = 4.59$, $SD = 0.62$), a finding similar to that of single respondents.

“Maintaining equipment to teach all standards” received the lowest satisfaction score ($M = 3.29$, $SD = 1.16$). These results can be seen in descending order in Table 56.

Table 56*Classroom Instruction Job Responsibility Satisfaction by Married Teachers (n = 17)*

Job Responsibility	Married Teachers	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.59	.62
Lesson delivery	4.47	.62
Managing classroom behavior	4.47	.62
Managing classroom expectations	4.47	.51
Designing lab activities	4.29	.70
Hands on lesson plans	4.24	.90
301 duties	4.20	.78
Maintaining land lab facilities	4.13	.72
Maintaining curriculum certifications	4.12	.70
Grading	4.06	1.03
Keeping lessons current and relevant	4.06	.24
Making purchase requests	3.94	1.03
Professional membership duties	3.94	.83
IEP/504 differentiation	3.94	.75
Using technology	3.94	.66
Advisory board meetings	3.82	1.02
Parent/Teacher conferencing	3.53	1.07
Assisting with district and state assessments	3.41	1.12
Maintaining equipment to teach all standards	3.29	1.16

SPSS calculated descriptive statistics to determine the effect of Marital Status (Single or Married) on FFA job responsibility satisfaction. For single respondents, “Traveling to state association conferences” received the highest satisfaction score ($M = 4.29$, $SD = 0.76$) and “Recruiting industry experts to coach/judge CDEs” received the lowest satisfaction score ($M = 2.63$, $SD = 0.52$). The results for FFA job responsibility satisfaction by Single Teachers can be seen in descending order in Table 57.

Table 57*FFA Job Responsibility Satisfaction by Single Teachers (n = 13)*

Job Responsibility	Single Teachers	
	<i>M</i>	<i>SD</i>
Traveling to state association conferences	4.29	.76
Traveling to state convention	4.25	.71
Attending state fair	4.25	.50
Attending livestock shows	4.13	.64
Traveling to CDEs	4.00	1.00
Conducting FFA recruitment activities	4.00	.94
Supervising livestock projects	4.00	.71
Coaching CDE teams	3.91	.83
Supervising FFA chapter meetings	3.82	1.08
Conducting community service projects	3.82	.98
Traveling to National Convention	3.80	1.30
Attending county fair	3.78	1.20
Hosting chapter banquet	3.75	1.17
Student mentorship and advising	3.73	1.01
Acquiring CDE study resources	3.64	.51
Chapter officer elections	3.55	1.04
Attending district meetings	3.50	.97
Monitoring FFA award applications	3.50	.85
Chapter officer training	3.45	1.21
Scheduling CDE practices	3.45	.93
Fulfilling CDE chair duties	3.44	1.13

Job Responsibility	Single Teachers	
	<i>M</i>	<i>SD</i>
Conducting FFA fundraisers	3.27	1.19
Fulfilling district chair duties	3.00	1.12
Recruiting industry experts to coach/judge CDEs	2.63	.52

For married respondents, “Hosting chapter banquet” received the highest satisfaction score ($M = 4.71$, $SD = 0.47$) and “Attending state fair” received the lowest satisfaction score ($M = 3.11$, $SD = 0.60$). The results for FFA job responsibility satisfaction by Married Teachers can be seen in descending order in Table 58.

Table 58*FFA Job Responsibility Satisfaction by Married Teachers (n = 17)*

Job Responsibility	Married Teachers	
	<i>M</i>	<i>SD</i>
Hosting chapter banquet	4.71	.47
Traveling to state convention	4.53	.87
Supervising FFA chapter meetings	4.50	.63
Traveling to CDEs	4.47	.87
Traveling to state association conferences	4.47	.72
Chapter officer elections	4.29	.77
Chapter officer training	4.29	.77
Traveling to National Convention	4.25	.86
Attending county fair	4.19	.83
Coaching CDE teams	4.18	.81
Student mentorship and advising	4.18	.64
Supervising livestock projects	4.13	.83
Conducting community service projects	4.12	.86
Conducting FFA fundraisers	4.06	.75
Conducting FFA recruitment activities	4.06	.75
Attending livestock shows	4.00	.82
Monitoring FFA award applications	3.94	.97
Scheduling CDE practices	3.82	1.02
Fulfilling district chair duties	3.81	.98
Attending district meetings	3.76	1.25
Recruiting industry experts to coach/judge CDEs	2.76	1.09

Job Responsibility	Married Teachers	
	<i>M</i>	<i>SD</i>
Fulfilling CDE chair duties	3.75	1.29
Acquiring CDE study resources	3.71	1.11
Attending state fair	3.11	.60

SPSS calculated descriptive statistics to determine the effect of Marital Status (Single or Married) on SAE job responsibility satisfaction. For single respondents, “Attending SAE project county extension meetings” received the highest satisfaction score ($M = 4.00$, $SD = 1.00$) and “Facilitating parental support of SAE” received the lowest satisfaction score ($M = 2.27$, $SD = 0.91$). These results are visible below in descending order in Table 59.

Table 59*SAE Job Responsibility Satisfaction by Single Teachers (n = 13)*

Job Responsibility	Single Teachers	
	<i>M</i>	<i>SD</i>
Attending SAE project county extension meetings	4.00	1.00
Monitoring school-based enterprises	4.00	.93
Monitoring county and state fair activities	3.75	1.17
Monitoring SAE award applications	3.50	.97
Monitoring the Agricultural Experience Tracker (AET)	3.27	1.01
Monitoring internships	3.25	.96
Identifying SAE ideas for students	3.18	.87
Forming industry partnerships	3.13	1.13
Conducting SAE visits	3.11	1.17
Employing SAE for ALL	2.91	1.38
Making SAE relevant to all students	2.82	.98
Monitoring SAE grants	2.63	1.19
Identifying SAE financial resources for students	2.55	.70
Facilitating parental support of SAE	2.27	.91

For married respondents, “Identifying SAE ideas for students” received the highest satisfaction score ($M = 4.18$, $SD = 0.39$). In exact opposition to that which was found for single respondents, “Attending SAE project county extension meetings” received the lowest satisfaction score ($M = 2.82$, $SD = 1.54$). These results can be seen in descending order in Table 60.

Table 60*SAE Job Responsibility Satisfaction by Married Teachers (n = 17)*

Job Responsibility	Married Teachers	
	<i>M</i>	<i>SD</i>
Identifying SAE ideas for students	4.18	.39
Monitoring school-based enterprises	4.07	1.10
Monitoring the Agricultural Experience Tracker (AET)	4.06	.90
Monitoring SAE award applications	4.00	1.00
Monitoring county and state fair activities	3.73	1.10
Forming industry partnerships	3.56	1.09
Conducting SAE visits	3.44	1.09
Making SAE relevant to all students	3.24	1.09
Monitoring SAE grants	3.15	.90
Identifying SAE financial resources for students	3.12	.93
Monitoring internships	3.00	1.18
Employing SAE for ALL	2.94	1.12
Facilitating parental support of SAE	2.88	.86
Attending SAE project county extension meetings	2.82	1.54

Children

SPSS calculated descriptive statistics to determine the effect of the presence of personal children (Personal Children vs. No Personal Children) on Classroom Instruction job responsibility satisfaction. For respondents with children, “Setting the classroom environment” received the highest satisfaction score ($M = 4.58$, $SD = 0.52$) and “Maintaining equipment to teach all standards” received the lowest satisfaction score ($M = 3.42$, $SD = 1.08$). The results for

Classroom Instruction job responsibility satisfaction by Teachers with Children can be seen in descending order in Table 61.

Table 61*Classroom Instruction Job Responsibility Satisfaction by Teachers with Children (n = 12)*

Job Responsibility	Teachers with Children	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.58	.52
Lesson delivery	4.58	.52
Designing lab activities	4.50	.52
Hands on lesson plans	4.42	1.00
Managing classroom behavior	4.42	.67
Managing classroom expectations	4.42	.52
Maintaining curriculum certifications	4.17	.58
Maintaining lab facilities	4.09	.70
Advisory board meetings	4.08	.79
Keeping lessons current and relevant	4.08	.29
301 duties	4.00	1.21
Grading	4.00	.95
IEP/504 differentiation	3.92	.67
Using technology	3.83	.72
Making purchase requests	3.75	1.06
Parent/Teacher conferencing	3.67	1.07
Professional membership duties	3.58	1.17
Assisting with district and state assessments	3.42	1.08
Maintaining equipment to teach all standards	3.42	1.08

For respondents without children, “Setting the classroom environment” also received the highest satisfaction score ($M = 4.35$, $SD = 0.93$), a finding similar to that found for respondents with children. “Parent/Teacher conferencing” received the lowest satisfaction score ($M = 2.75$, $SD = .93$). The results for Classroom Instruction job responsibility satisfaction by Teachers without Children can be seen in descending order in Table 62.

Table 62*Classroom Instruction Job Responsibility Satisfaction by Teachers without Children (n = 18)*

Job Responsibility	Teachers without Children	
	<i>M</i>	<i>SD</i>
Setting the classroom environment	4.35	.93
Managing classroom expectations	4.24	.66
Hands on lesson plans	4.12	.86
Using technology	4.06	.75
Managing classroom behavior	4.00	.71
Professional membership duties	4.00	.71
Keeping lessons current and relevant	4.00	.61
Designing lab activities	3.94	.83
Lesson delivery	3.88	.78
Maintaining curriculum certifications	3.82	.64
Making purchase requests	3.76	1.15
Maintaining land lab facilities	3.71	1.16
301 duties	3.53	.83
Grading	3.47	1.38
Maintaining equipment to teach all standards	3.35	1.17
Assisting with district and state assessments	3.18	1.24
IEP/504 differentiation	3.12	1.05
Advisory board meetings	3.06	1.03
Parent/Teacher conferencing	2.75	.93

SPSS calculated descriptive statistics to determine the effect of the presence of personal children (Personal Children vs. No Personal Children) on FFA job responsibility satisfaction. For respondents with children, “Hosting chapter banquet” received the highest satisfaction score ($M = 4.75$, $SD = 0.45$) and “Attending state fair” received the lowest satisfaction score ($M = 3.00$, $SD = 0.63$). The results for FFA job responsibility satisfaction by Teachers with Children can be seen in descending order in Table 63.

Table 63*FFA Job Responsibility Satisfaction by Teachers with Children (n = 12)*

Job Responsibility	Teachers with Children	
	<i>M</i>	<i>SD</i>
Hosting chapter banquet	4.75	.45
Supervising FFA chapter meetings	4.67	.49
Traveling to CDEs	4.50	.91
Traveling to state convention	4.50	.91
Traveling to state association conferences	4.50	.67
Traveling to National Convention	4.33	.89
Chapter officer training	4.33	.78
Coaching CDE teams	4.33	.49
Attending county fair	4.27	.65
Chapter officer elections	4.25	.75
Conducting FFA recruitment activities	4.25	.62
Scheduling CDE practices	4.17	.84
Fulfilling CDE chair duties	4.09	1.04
Attending district meetings	4.08	1.24
Fulfilling district chair duties	4.08	.90
Conducting community service projects	4.08	.90
Conducting FFA fundraisers	4.08	.90
Student mentorship and advising	4.08	.67
Supervising livestock projects	4.00	.89
Monitoring FFA award applications	4.00	.85

Job Responsibility	Teachers with Children	
	<i>M</i>	<i>SD</i>
Monitoring FFA degree applications	3.92	.90
Attending livestock shows	3.89	.60
Acquiring CDE study resources	3.75	.97
Recruiting industry experts to coach/judge CDEs	3.00	1.21
Attending state fair	3.00	.63

For respondents without children, “Traveling to state convention” received the highest satisfaction score ($M = 4.36, SD = 0.75$) and “Recruiting industry experts to coach/judge CDEs” received the lowest satisfaction score ($M = 2.50, SD = 0.52$). The results for FFA job responsibility satisfaction by Teachers without Children can be seen in descending order in Table 64.

Table 64*FFA Job Responsibility Satisfaction by Teachers without Children (n = 18)*

Job Responsibility	Teachers without Children	
	<i>M</i>	<i>SD</i>
Traveling to state convention	4.36	.75
Traveling to state association conferences	4.31	.75
Supervising livestock projects	4.14	.66
Traveling to CDEs	4.13	.92
Attending livestock shows	4.08	.86
Hosting chapter banquet	4.07	1.00
Student mentorship and advising	3.94	.90
Conducting community service projects	3.94	.90
Traveling to National Convention	3.90	.99
Supervising FFA chapter meetings	3.88	.96
Coaching CDE teams	3.88	.93
Conducting FFA recruitment activities	3.88	.89
Attending county fair	3.87	1.13
Chapter officer elections	3.82	1.02
Chapter officer training	3.71	1.11
Monitoring FFA degree applications	3.63	.96
Attending state fair	3.63	.92
Monitoring FFA award applications	3.63	.89
Acquiring CDE study resources	3.59	.87
Conducting FFA fundraisers	3.47	1.01
Scheduling CDE practices	3.29	.92

Job Responsibility	Teachers without Children	
	<i>M</i>	<i>SD</i>
Fulfilling CDE chair duties	3.27	1.22
Attending district meetings	3.19	1.11
Fulfilling district chair duties	3.00	.96
Recruiting industry experts to coach/judge CDEs	2.50	.52

Lastly, SPSS was used to calculate descriptive statistics on the effect of the presence of personal children (Personal Children vs. No Personal Children) on SAE job responsibility satisfaction. For respondents with children, “Monitoring school-based enterprises” received the highest satisfaction score ($M = 4.18$, $SD = 0.75$) and “Employing SAE for ALL” received the lowest satisfaction score ($M = 2.55$, $SD = 1.04$). The results for SAE job responsibility satisfaction by Teachers with Children can be seen in descending order in Table 65.

Table 65*SAE Job Responsibility Satisfaction by Teachers with Children (n = 12)*

Job Responsibility	Teachers with Children	
	<i>M</i>	<i>SD</i>
Monitoring school-based enterprises	4.18	.75
Monitoring SAE award applications	4.17	.72
Identifying SAE ideas for students	4.08	.29
Monitoring the Agricultural Experience Tracker (AET)	3.92	1.00
Monitoring county and state fair activities	3.91	1.04
Forming industry partnerships	3.67	.78
Conducting SAE visits	3.45	1.13
Monitoring SAE grants	3.44	.53
Identifying SAE financial resources for students	3.25	.97
Monitoring internships	3.00	.67
Making SAE relevant to all students	2.92	.90
Facilitating parental support of SAE	2.83	.84
Attending SAE project county extension meetings	2.57	1.51
Employing SAE for ALL	2.55	1.04

For respondents without children, “Monitoring school-based enterprises” received the highest satisfaction score ($M = 3.92$, $SD = 1.19$); this job responsibility also received the highest satisfaction score for respondents with children. “Facilitating parental support of SAE” received the lowest satisfaction score ($M = 2.53$, $SD = 0.94$). The results for SAE job responsibility satisfaction by Teachers without Children can be seen in descending order in Table 66.

Table 66*SAE Job Responsibility Satisfaction by Teachers without Children (n = 18)*

Job Responsibility	Teachers without Children	
	<i>M</i>	<i>SD</i>
Monitoring school-based enterprises	3.92	1.19
Monitoring the Agricultural Experience Tracker (AET)	3.65	1.00
Attending SAE project county extension meetings	3.60	1.27
Identifying SAE ideas for students	3.59	.94
Monitoring SAE award applications	3.56	1.09
Monitoring county and state fair activities	3.46	1.20
Conducting SAE visits	3.27	1.10
Employing SAE for ALL	3.24	1.25
Making SAE relevant to all students	3.24	1.15
Forming industry partnerships	3.15	1.28
Monitoring internships	3.11	1.45
Identifying SAE financial resources for students	2.71	.77
Monitoring SAE grants	2.69	1.18
Facilitating parental support of SAE	2.53	.94

Summary

In person interviews carried out with 12 female agricultural educators from the state of Arizona revealed that motivator, hygiene, and external factors all play a role in Classroom Instruction, FFA, and SAE job responsibility satisfaction. The findings also showed that the three factors have an impact on how the participants perceived their experience with the AATA New

Teacher Mentoring Program, and in how they viewed supporting structures (people and practices) that influence their decisions to stay in the profession.

Thirty Arizona female agricultural educators ($n = 30$) also responded to a questionnaire that was disseminated via Qualtrics. The questionnaire gathered information on Classroom Instruction, FFA, and SAE job satisfaction, AATA New Teacher Mentoring Program mentee and mentor satisfaction, and demographic data. From the results, SPSS was used to rank the subsequent data on Classroom Instruction, FFA, and SAE job responsibilities in descending order by level of satisfaction. AATA Mentoring Program mentee and mentor experiences were also ranked by order of satisfaction level. Lastly, SPSS also ranked the demographic personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and presence of personal children) to ascertain the impact of those demographic factors on Classroom Instruction, FFA, and SAE job responsibility satisfaction.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Purpose of the Study

The purpose of this applied action research was to identify factors that contribute to job satisfaction of female secondary agricultural educators in Arizona. The information acquired through this research may aid in developing a framework for an improvement plan to create a teacher support system as part of a new or existing committee within the AATA. There are also implications to use the findings in the University of Arizona's agricultural education teacher preparation program.

Research Questions

The following research questions were developed to guide this study:

1. Which job responsibilities generate the greatest and least levels of job satisfaction in female secondary agricultural educators in Arizona?
2. What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?
3. Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?
4. Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?

Summary of Findings and Results

Research Question One: Which job responsibilities cause the greatest and least amount of job satisfaction to female secondary agricultural educators in Arizona?

Classroom Instruction Job Responsibilities

The qualitative interviews revealed that the factor that created the greatest satisfaction for Classroom Instruction responsibilities were the responsibilities themselves (RES) (e.g., hands on lesson planning, bringing in realia, student interactions, grading). The other top two factors that influenced satisfaction were providing opportunities through their curriculum for their students to advance (ADV) and having supportive relationships with administration and fellow agricultural educators (PR). Interestingly, the factor that created the least amount of Classroom Instruction job responsibility satisfaction was also the responsibilities themselves (RES) (e.g., grading, paperwork, making sure lessons are current and relevant, staying up to date with agricultural advancements). The other top two factors that led to Classroom Instruction job dissatisfaction were working conditions (WC) and difficulty separating out the job responsibilities from their personal lives (WLB).

Questionnaire respondents were also asked to rate their satisfaction with their Classroom Instruction job responsibilities. The top three Classroom Instruction responsibilities with the greatest satisfaction levels were “Setting the classroom environment,” “Managing classroom expectations,” and “Designing hands on lesson plans.” The bottom three Classroom Instruction responsibilities with the least satisfaction levels were “Maintaining adequate equipment to teach all standards,” “Assisting with district and state assessments,” and “Parent/Teacher conferencing.”

FFA Job Responsibilities

The qualitative interviews revealed that the factor that created the greatest satisfaction for FFA responsibilities were once again the responsibilities themselves (RES) (e.g., community service activities, chapter officer training, coaching CDEs/LDEs). This was followed by giving students opportunities to achieve personal growth and success through CDEs and LDEs (ACH), and having good working relationships with their chapter officers, FFA members, and fellow agricultural educators (PR). The factors that created the least amount of FFA job responsibility satisfaction, as revealed by the interviews, were the job responsibilities themselves (RES) (e.g., CDE practices, FFA meetings, chapter banquet) followed by unsupportive administrators, parents, officers, and co-teachers (PR). The third factor that caused the greatest FFA job responsibility dissatisfaction was FFA activities taking time away from personal relationships (WLB).

Questionnaire respondents were also asked to rate their satisfaction with their FFA job responsibilities. The top three FFA job responsibilities with the greatest satisfaction levels were “Traveling to state convention,” “Traveling to state association conferences,” and “Hosting chapter banquet.” The bottom three FFA job responsibilities with the least satisfaction levels were “Fulfilling district chair duties,” “Attending state fair,” and “Recruiting industry experts to coach/judge CDEs.”

SAE Job Responsibilities

The qualitative interviews revealed that the top three factors that created the greatest satisfaction for SAE responsibilities followed the same order as those of the FFA job responsibilities: the responsibilities themselves (RES) (e.g., home visits, record keeping, discovering student interests), student achievement (ACH), and professional relationships (PR).

The factors that created the least amount of SAE job responsibility satisfaction, as revealed by the interviews, were working conditions (WC), the commitment level of students to actually have an SAE project (CL), and finally the responsibilities themselves (RES) (e.g., making SAEs relevant, monitoring SAE records).

Lastly, questionnaire respondents were asked to rate their satisfaction with their SAE job responsibilities. The top three SAE job responsibilities with the greatest satisfaction levels were “Monitoring school-based enterprises,” “Monitoring SAE award applications,” and “Identifying SAE ideas for students.” The bottom three SAE job responsibilities with the least satisfaction levels were “Employing SAE for ALL,” “Identifying SAE financial resources for students,” and “Facilitating parental support of SAE.”

Research question Two: What supporting structures (people and practices) influence retention decisions among female secondary agricultural educators in Arizona?

The research revealed that being an agricultural educator had/has a tremendous impact on the interview participants’ ability to achieve work-life balance. Female agricultural educators in Arizona feel a need to prove themselves (SE) and their commitment level (CL) to those in their professional relationships (administration, fellow agricultural educators, parents, students, and industry representatives) (PR). This can lead to feelings of burnout (BNT) and low self-efficacy (SE), especially if they come from a vulnerable teaching population (VTP) or are not well socially integrated (SI) into their school or community. Female agricultural educators face the additional challenge of proving themselves as wives and mothers (SCG) and experiencing gender bias (GB) in what has traditionally been a male-dominated profession.

However, there are some supporting structures that can influence female agricultural educators’ decisions to remain in the profession. Chief among these is having a strong support

network, most notably, having the support of fellow agricultural educators (PR). Other supportive people include family members, administrators, students, and parents. A supporting practice that influences retention is taking steps to achieve work-life balance (WLB). This requires the female agricultural educator to set a firm delineation between their personal and professional life through such practices as leaving work on time, not bringing work home, and limiting their contact with work individuals (students, parents, administrators) during personal time. The third factor that has the greatest influence on retention is having good self-efficacy (SE). Female agricultural educators need to have confidence in themselves and their abilities. By valuing themselves and their contributions to the profession, they are better positioned to flourish despite the external and hygiene factor challenges they face.

Research Question Three: Which factors generate the greatest and least levels of female secondary agricultural educator satisfaction with the AATA Mentoring Program?

Interview participants were asked general questions about their experience with the AATA New Teacher Mentoring Program as either a mentor or a mentee, as well as their overall satisfaction with their experiences. Participants noted that the commitment level (CL) from their assigned mentor or mentee had the greatest impact on their experience. Commitment levels were generally viewed to be low by both mentors and mentees. Seeking advice from others outside their assigned mentor was a general theme among mentees (PR). Mentees also noted an additional challenge of being unsure of what they needed as a first-year teacher and how to communicate that with their mentor (VTP). Several participants also expressed feelings of being an outsider (not coming from an agricultural education background) as well as a gap between traditional and industry certified teachers (VTP).

The interviews revealed that mentee self-efficacy (SE) was found to have the greatest impact on overall satisfaction with the mentoring program experience. Mentees expressed a balanced desire to show they could do it on their own while also finding someone they felt comfortable with whom they could turn to for advice and support. The second factor that influenced experience satisfaction was a focus on vulnerable teacher populations (VTP). Specific mentions were made to bridge the gap for those coming in from industry, as well as those who do not have an agricultural education background. Participants also identified that better social integration (SI) within the Arizona agricultural educator community would have a positive impact on their satisfaction with the program. Lastly, participants recognized that an increased active commitment level (CL) was needed by both mentors and mentees to make the program a success.

Questionnaire respondents were also asked to rate their satisfaction with their experience as either a mentor or a mentee. Respondents who identified as mentees were asked to rate their satisfaction with specific factors relating to their experience. The data revealed that the three factors that had the greatest impact on mentee experience satisfaction were “Years of teaching experience of assigned mentor,” “Topics offered in New Teacher Induction workshop series,” and the “New Teacher Induction workshop series” itself. The three factors that caused the greatest dissatisfaction for mentee program experience were “In person communication with mentor,” “Traveling to mentorship meetings,” and “Ability to select your mentor.”

Respondents who identified as mentors were also asked to rate their satisfaction with specific factors relating to their experience. The results showed that “Confidence in supporting traditionally certified mentees” had the highest satisfaction level, followed by “Electronic communication,” and “Confidence in supporting industry certified mentees.” The three factors

with the lowest satisfaction levels were “Number of social gatherings to build mentoring relationships,” “Monetary compensation,” and “Mentor training received.”

Research Question Four: Do personal and professional characteristics (degree type, certification type, years of experience, race, marital status, and children) influence job satisfaction among female secondary agricultural educators in Arizona?

Descriptive statistics run on the six demographic information factors (degree type, certification type, years of experience, race, marital status, and children) and the three job responsibility satisfaction factors (Classroom Instruction, FFA, and SAE) revealed the following areas of satisfaction and dissatisfaction (Table 67):

Table 67

Greatest and Least Job Responsibility Satisfaction by Personal and Professional Characteristics (n = 30)

Characteristic	Variable	Area	Job Responsibilities	
			Greatest Satisfaction	Least Satisfaction
Degree Type	Bachelor's degree	Classroom Instruction	Setting the classroom environment ($M = 4.46, SD = 0.97$)	Parent/Teacher conferencing ($M = 2.85, SD = 1.23$)
		FFA	Traveling to state association conferences ($M = 4.45, SD = 0.82$)	Attending state fair ($M = 3.33, SD = 1.03$)
		SAE	Monitoring SAE award applications ($M = 4.00, SD = 0.82$)	Facilitating parental support of SAE ($M = 2.69, SD = 0.86$)
	Master's degree	Classroom Instruction	Setting the classroom environment ($M = 4.44, SD = 0.63$)	Maintaining equipment to teach all standards ($M = 3.00, SD = 1.10$)
		FFA	Traveling to state convention ($M = 4.57, SD = 0.51$)	Recruiting industry experts to coach/judge CDEs ($M = 2.80, SD = 0.94$)
		SAE	Monitoring school-based enterprises ($M = 4.21, SD = 0.80$)	Facilitating parental support of SAE ($M = 2.63, SD = 0.96$)
Certification Type	Traditional Certification	Classroom Instruction	Setting the classroom environment ($M = 4.44, SD = 0.77$)	Parent/Teacher conferencing ($M = 3.04, SD = 1.08$)
		FFA	Traveling to state convention ($M = 4.41, SD = 0.80$)	Recruiting industry experts to coach/judge CDEs ($M = 2.73, SD = 0.94$)

Characteristic	Variable	Job Responsibilities		
		Area	Greatest Satisfaction	Least Satisfaction
Years of Experience	Industry Certification	SAE	Monitoring school-based enterprises ($M = 4.19, SD = 0.75$)	Facilitating parental support of SAE ($M = 2.68, SD = 0.96$)
		Classroom Instruction	Managing classroom behavior ($M = 5.00, SD = 0.00$)	Hands on lesson plans ($M = 3.50, SD = 1.29$)
		FFA	Hosting chapter banquet ($M = 5.00, SD = 0.00$)	Attending state fair ($M = 3.25, SD = .50$)
	Early Teacher	SAE	Monitoring SAE award applications ($M = 4.50, SD = 0.58$)	Facilitating parental support of SAE ($M = 2.50, SD = 0.58$)
		Classroom Instruction	Setting the classroom environment ($M = 4.54, SD = 0.78$)	Parent/Teacher conferencing ($M = 2.92, SD = 1.00$)
		FFA	Hosting chapter banquet ($M = 4.50, SD = 0.53$)	Recruiting industry experts to coach/judge CDEs ($M = 2.58, SD = 0.52$)
Late Teacher	SAE	Monitoring school-based enterprises ($M = 3.82, SD = 1.17$)	Monitoring SAE grants ($M = 2.73, SD = 0.91$)	
	Classroom Instruction	Lesson Delivery ($M = 4.44, SD = 0.81$)	Parent/Teacher conferencing ($M = 3.31, SD = 1.14$)	
	FFA	Traveling to state association conferences ($M = 4.43, SD = 0.65$)	Recruiting industry experts to coach/judge CDEs ($M = 2.86, SD = 1.17$)	

Characteristic	Variable	Area	Job Responsibilities	
			Greatest Satisfaction	Least Satisfaction
Race	Caucasian	SAE	Monitoring school-based enterprises ($M = 4.23, SD = 0.83$)	Facilitating parental support of SAE ($M = 2.56, SD = 0.89$)
		Classroom Instruction	Setting the classroom environment ($M = 4.42, SD = 0.81$)	Parent/Teacher conferencing ($M = 3.20, SD = 1.08$)
		FFA	Hosting chapter banquet ($M = 4.46, SD = 0.72$)	Recruiting industry experts to coach/judge CDEs ($M = 2.78, SD = 0.95$)
	Hispanic	SAE	Monitoring school-based enterprises ($M = 4.09, SD = 0.92$)	Facilitating parental support of SAE ($M = 2.65, SD = 0.85$)
		Classroom Instruction	Setting the classroom environment ($M = 4.67, SD = 0.58$)	Maintaining land lab facilities ($M = 2.33, SD = 0.58$)
		FFA	Attending state fair ($M = 5.00, SD = 0.00$)	Recruiting industry experts to coach/judge CDEs ($M = 2.33, SD = 0.58$)
Marital Status	Single	SAE	Attending SAE project county extension meetings ($M = 4.00, SD = 1.41$)	Monitoring SAE grants ($M = 1.67, SD = 1.16$)
		Classroom Instruction	Setting the classroom environment ($M = 4.27, SD = 1.01$)	Parent/Teacher conferencing ($M = 2.50, SD = 0.85$)
		FFA	Traveling to state association conferences ($M = 4.29, SD = 0.76$)	Recruiting industry experts to coach/judge CDEs ($M = 2.63, SD = 0.52$)

Characteristic	Variable	Job Responsibilities		
		Area	Greatest Satisfaction	Least Satisfaction
Presence of Personal Children	Married	SAE	Attending SAE project county extension meetings ($M = 4.00$, $SD = 1.00$)	Facilitating parental support of SAE ($M = 2.27$, $SD = 0.91$)
		Classroom Instruction	Setting the classroom environment ($M = 4.59$, $SD = 0.62$)	Maintaining equipment to teach all standards ($M = 3.29$, $SD = 1.16$)
		FFA	Hosting chapter banquet ($M = 4.71$, $SD = 0.47$)	Attending state fair ($M = 3.11$, $SD = 0.60$)
	Children	SAE	Identifying SAE ideas for students ($M = 4.18$, $SD = 0.39$)	Attending SAE project county extension meetings ($M = 2.82$, $SD = 1.54$)
		Classroom Instruction	Setting the classroom environment ($M = 4.58$, $SD = 0.52$)	Maintaining equipment to teach all standards ($M = 3.42$, $SD = 1.08$)
		FFA	Hosting chapter banquet ($M = 4.75$, $SD = 0.45$)	Attending state fair ($M = 3.00$, $SD = 0.63$)
No Children	Children	SAE	Monitoring school-based enterprises ($M = 4.18$, $SD = 0.75$)	Employing SAE for ALL ($M = 2.55$, $SD = 1.04$)
		Classroom Instruction	Setting the classroom environment ($M = 4.35$, $SD = 0.93$)	Parent/Teacher conferencing ($M = 2.75$, $SD = .93$)
	FFA	Traveling to state convention ($M = 4.36$, $SD = 0.75$)	Recruiting industry experts to coach/judge CDEs ($M = 2.50$, $SD = 0.52$)	

Characteristic	Variable	Job Responsibilities		
		Area	Greatest Satisfaction	Least Satisfaction
		SAE	Monitoring school-based enterprises ($M = 3.92, SD = 1.19$)	Facilitating parental support of SAE ($M = 2.53, SD = 0.94$)

Conclusions and Implications

Research Question One Conclusions

Being an agricultural educator requires knowledge of the responsibilities necessary to have a program that fulfills all three components of a total program (Classroom Instruction, FFA, and SAE). The FFA and SAE job responsibilities require extensive time commitments that often fall outside the hours of a normal school day. The necessity of these two components combined with the pressure of having a premier total program can lead to female agricultural educators questioning their self-efficacy. Having a family or other personal relationships can exacerbate these issues as well as cause feelings of burnout (Adams et al., 1996; Buehler, 2009).

In comparing the findings for Research Question One to the Conceptual Model, the research revealed that responsibilities can be both a motivator factor and a hygiene factor. For both Classroom Instruction and FFA, the responsibilities themselves were at the top of the list for both factors that cause satisfaction and factors that cause dissatisfaction. This leads me to conclude that while female agricultural educators enjoy their job responsibilities, the stress factor is raised when the element of time commitment is added to those responsibilities.

Hygiene factors like working conditions, professional relationships, and salary and benefits can cause female agricultural educators to feel unsupported and undervalued (Herzberg et al., 1959). Interestingly, professional relationships, originally listed as a hygiene factor on the

Conceptual Model, were also revealed to be a motivator factor for female agricultural educators in Arizona. Having the professional support of fellow agricultural educators enabled the interview participants to feel supported when faced with challenges in their job responsibilities. Also, although personal achievement and advancement were originally seen as personal motivator factors, the female agricultural educators reported they gained more satisfaction from the advancements and achievements of their students than they did from personal achievement or advancement. Acknowledging that the job responsibilities are part of the career lifestyle of an agricultural educator is necessary to help female agricultural educators ride the wave when times get tough and be resilient in their commitment to see it through to the end (Day, 2008; Firestone & Pennell, 1993).

Research Question One Implications

The findings and results of this research have several implications. Primary among them is the results reveal that female agricultural educators enjoy the autonomy the comes from activities such as setting their class environment, monitoring school-based enterprises, hosting recognition events like chapter banquet, and conducting lessons that are hands on and relevant to real life experiences. However, they dislike responsibilities that remove this element of control such as the inability to purchase adequate equipment for their program, facilitating parent support, or being made to comply with one size fits all programs such as SAE for ALL. A clearer understanding of this need for autonomy can better enable agricultural education teacher preparation programs to initiate curriculum focusing on coping mechanisms that enable new teachers to feel better prepared about relinquishing control (and stress) when faced with these situations in the future.

Research Question Two Conclusions

Supportive professional relationships play a large role in female agricultural educator longevity. Feelings of mutual care and respect, even across geographical distance, equip female agricultural educators with a support network that can lift them up despite lack of self-efficacy and poor working conditions (Chapman, 1984). This bond of affiliation creates a shared commitment level in which each female agricultural educator views themselves as an integral piece in an interconnected web. Greater emphasis must be placed on fostering these professional relationships between female agricultural educators to encourage retention of quality female agricultural educators.

In terms of supportive practices, the agricultural educators interviewed expressed that creating work-life balance is an important and necessary component to their longevity in the profession. Of note, participants reported that work does conflict with their personal lives; however, they did not report that their personal lives conflict with their ability to work, meaning that the relationship is not bi-directional. Participants who revealed confidence in their ability to place work-life balance supporting structures in place also expressed a decreased conflict in work-life balance. This finding corroborates that found by Gutek et al. (1991) and Day (2008). Chaney (2007) found that as work-life balance increased, retention rates improved. However, although this study did reveal a positive perception by the interview participants that having work-life balance was linked to longevity, no direct correlations can be drawn from this study that as work-life balance increased, retention increased. As reported, only a negligible, positive relationship can be inferred between the two.

When viewed in relation to the Conceptual Model, work-life balance was the external factor that had the greatest influence on female agricultural educators' decisions to stay in the

profession, and professional relationships were the greatest internal factor. To improve their potential for longevity in the profession, it is advised that female agricultural educators take care to prioritize their personal responsibilities in addition to their professional responsibilities (Farkas et al., 2000). Additionally, the Arizona agricultural education community must come together to support and encourage their educators (both male and female) so that they feel nurtured, respected, and included (Boone & Boone, 2007).

Research Question Two Implications

The findings of this research indicate a need for school administrators and state agricultural education staff to have a proactive awareness of work-life conflict when designing events and activities that require an additional time commitment from female agricultural educators. When female agricultural educators “assume too much responsibility for activities beyond classroom instruction, there is the potential for negative impact on their commitment to remain” (Crutchfield, 2010, p. 121). Space and time should also be set aside during these events for female agricultural educators to debrief, communicate, and build supportive relationships with one another. The AATA New Teacher Mentoring Program should incorporate instruction on work-life balance in their mentor training to enable mentors to better coach their mentees on strategies to prioritize themselves, create balance between their professional responsibilities and their personal lives, and formulate professional relationships with others in the profession beyond their assigned mentor.

Research Question Three Conclusions

Commitment is a necessary component of retention (Singh and Billingsley, 1996). The AATA New Teacher Mentoring Program must be led by individuals who are committed to ensuring that mentors receive proper training and support, so that the mentors are in turn

committed to raising the self-efficacy of the first-year agricultural educators in their charge (Ingersoll & Strong, 2012; Kent et al., 2012; Winters & Cowen, 2013). It is essential to remind mentors that first year agricultural educators fall into the vulnerable teacher population, and so they should be treated as a group with greater support needs than seasoned agricultural educators (Paulsen et al., 2015). Given that Research Question Two revealed that professional relationships with fellow agricultural educators are an important factor in retention, mentors must take their responsibilities seriously in cultivating and maintaining these relationships.

When viewed through the lens of the Conceptual Model, Research Question Three revealed that gender-neutral external factors (self-efficacy, vulnerable teacher populations, burnout, commitment level, and social integration) greatly impact a female agricultural educator's propensity to endure during her first year of teaching. The negative effects of these factors can be alleviated by the presence of strong professional relationships via mentoring (Ingersoll & Strong, 2012). Professional mentoring relationships enable female agricultural educators to focus on the motivator factors, thus allowing them to be intrinsically motivated and enhancing their ability to perform in the classroom (Day, 2008; Firestone & Pennell, 1993).

Research Question Three Implications

Through the AATA New Teacher Mentoring Program, seasoned agricultural educators are given the responsibility of sharing strategies and teaching coping skills to agricultural educators who are new to the profession. The goal for this mentoring relationship should be twofold: to instruct mentees on the necessity of creating work-life balance, and to actively reengage mentors in the profession through self-evaluation of their own skills, abilities, strategies, and work-life balance practices. By focusing on these two factors, the AATA Leadership Committee can create an environment in which commitment to the profession is

sustainable. This research also has implications to create an open and honest conversation as to the needs of industry certified agricultural educators. Professional relationships should be extended to industry certified female agricultural educators to promote inclusivity and build affiliation. All female Arizona agricultural educators, regardless of their certification type, should be actively embraced as valued members of the organization.

Research Question Four Conclusions

In reviewing the data, areas of overlap in job responsibility satisfaction and dissatisfaction across the demographic personal and professional characteristics became apparent. The job responsibilities noted for satisfaction or dissatisfaction in multiple demographic areas are displayed below:

Areas of Greatest Job Responsibility Satisfaction

- “Setting the classroom environment”: Identified in Degree Type, Certification Type, Years of Experience, Race, Marital Status, and Children
- “Traveling to state association conferences”: Identified in Degree Type, Years of Experience, and Marital Status
- “Traveling to state convention”: Identified in Degree Type, Certification Type, and Children
- “Hosting chapter banquet”: Identified in Years of Experience, Race, Marital Status, and Children
- “Monitoring SAE award applications”: Identified in Degree Type and Certification Type
- “Monitoring school-based enterprises”: Identified in Degree Type, Certification Type, Years of Experience, Race, and Children

Areas of Least Job Responsibility Satisfaction

- “Parent/Teacher conferencing”: Identified in Degree Type, Certification Type, Years of Experience, Race, Marital Status, and Children
- “Maintaining equipment to teach all standards”: Identified in Degree Type, Marital Status, and Children
- “Attending state fair”: Identified in Degree Type, Certification Type, Marital Status, and Children
- “Recruiting industry experts to coach/judge CDEs”: Identified in Degree Type, Certification Type, Years of Experience, Race, Marital Status, and Children
- “Facilitating parental support of SAE”: Identified in Degree Type, Certification Type, Years of Experience, Race, Marital Status, and Children
- “Monitoring SAE grants”: Identified in Years of Experience and Race

The overlap of these specific Classroom Instruction, FFA, and SAE job responsibilities across multiple demographic factors indicates a need to focus instruction on the responsibilities that produce the least amount of job satisfaction in agricultural education teacher preparation programs in order to share information equally among female agricultural educators from a wide variety of demographic backgrounds.

Winston Churchill once stated, “Where there is great power, there is great responsibility” (Quote Investigator, 2015). Being an agricultural educator comes with the power of being able to shape the interests of students by igniting their passion for success. However, being an agricultural educator also requires being proficient in a wide variety of skills and responsibilities. Responsibility, as one of the four motivator factors on the Conceptual Model, plays an integral role in the growth of self-efficacy. In recognizing both the power and the weight of

responsibility, female agricultural educators can better prepare themselves to celebrate the joys and endure the challenges that come along with it, thus enabling them to be committed, actively engaged, and mentally stimulated (Louis, 1998). Quality agricultural education teacher preparation programs should equip their graduates with the knowledge, skills, and coping mechanisms necessary to proactively handle the wide range of responsibilities they will face in their future teaching positions (Castro et al., 2010).

Research Question Four Implications

The results of this research have implications to reprioritize areas of needed instruction in agricultural education teacher preparation programs. There is no direct way to get around various Classroom Instruction, FFA, and SAE job responsibilities, and teacher preparation programs cannot directly encourage their graduates to not do the job responsibilities that they find challenging. However, agricultural education teacher preparation programs can make it a point to discuss these types of job responsibilities and make suggestions on how to be efficient when conducting those responsibilities, so that their graduates are better prepared to handle the responsibilities when they encounter them in the field.

Recommendations

Recommendations for Research

This study has identified that female agricultural educators have specific needs in order to feel supported within the Arizona agricultural education community. It has also illuminated several areas for further research. One area for further research is identifying sources of job responsibility satisfaction among minority female agricultural educators. Minorities are subject to intersectionality, in which several factors interact to produce an overall outlook or effect. For example, a young female African American agricultural educator is shaped by the perspectives

of being young and female and African American, thus adding many layers to how they view job satisfaction. Further research could also be conducted to see if supporting structures look different across minority female agricultural educators in Arizona, if there are specific retention or attrition factors that influence their decisions to remain in the profession, and what factors motivate them to become agricultural educators in a profession dominated primarily by Caucasians.

Another recommendation for further study is to survey female agricultural educators in Arizona who initially left the profession but returned later in life. Which factors initiated their decision to leave and their decision to return? How have their perspectives about their job responsibilities changed since returning? Are they better able to achieve work-life balance? What supporting structures do they have in place that enabled them to return to agricultural education? What percentage of the female agricultural education community do they represent? Knowledge of such factors may further improve future retention efforts.

Identifying the needs of industry certified female agricultural educators in Arizona is another area for further research. Finding out the job responsibility area(s) (Classroom Instruction, FFA, or SAE) in which they need the most support is crucial to their longevity in the profession. Should the mentoring process be different for industry certified agricultural educators than it is for those that come from a traditional teacher preparation background? The results of such research would better position AATA mentors to anticipate the needs of industry certified mentees by bridging the gap between their current knowledge and abilities and those that they will need to be successful long term in the profession.

Rural vs. urban female agricultural educator support needs is an area for future research as well. By virtue of geography, urban agricultural educators often have a stronger support

network with fellow agricultural educators in their district. In contrast, rural agricultural educators typically operate in an element of isolation, requiring them to actively preplan involvement in agricultural education professional activities. What coping skills do long term rural female agricultural educators have that enable them to be successful without the presence of social integration from fellow agricultural educators?

Further research is also needed on the training needs of AATA mentors. What areas do they need the most instruction? Which factors influence their commitment levels? Which number of years of experience is best suited to fulfill mentorship duties? Recognition of these factors through the administration of a needs assessment would allow the AATA Leadership Committee to design a training module targeted at the specific needs of their audience. More structured expectations of the duties might also lead to higher overall satisfaction of the mentoring program experience by both mentors and mentees.

A final area for future research would be the support needs for first year agricultural educators. A longitudinal study of first year teacher support needs may illuminate some common themes across cohorts. While the profession is ever evolving, the themes that may arise from such research could be used to improve curriculum in agricultural education teacher preparation programs, thus building self-efficacy and enhancing retention.

Recommendations for Practice

The findings from this research emphasize the importance of fostering a strong sense of community within the Arizona agricultural education community. Agricultural educators are often viewed as each other's first line of support. In light of the social distancing guidelines of the COVID-19 pandemic, this need has become much more evident. It is recommended that once local and state sanctions allow, the AATA make an effort to conduct more social networking

events for female agricultural educators to bond through shared interests and common backgrounds.

Further social gatherings are also needed at the beginning of the AATA mentoring process for mentees to get to know prospective mentors before being assigned to one. As most new job placements take place prior to May, and the CTE_{AZ} Summer Conference takes place in mid-July, there is time beginning in June for such gatherings to take place either in person or virtually. It is also recommended that reflection “exit interviews” be carried out with mentees at the end of their first year to stay abreast of the specific challenges they faced as new teachers. In this way, the AATA Leadership Committee can be proactive in anticipating the needs of each new group of mentees.

A further recommendation is that the AATA Leadership Committee rethink the current structure of the mentoring program. Mentors should be matched with mentees on more than just proximity; efforts should be made to also match them based on professional goals, type of program, and personal interests. Agricultural educators that agree to be mentors should exhibit a commitment level equal to the task. During the Mentor/Mentee Breakfast, clear expectations should be conveyed from the Leadership Committee Chair to both mentors and mentees as to what the mentoring relationship entails: mutual communication efforts. It is recommended that the AATA Leadership Committee put together a training program so that mentors are aware of the expectations of their assignment. A schedule for mentors to contact their mentees should also be created and disseminated to mentors during the training. Because of the added efforts and commitment, it may be necessary to offer a monetary incentive to reward mentors for fulfilling their duties. Lastly, it is recommended that the AATA expand the mentoring program beyond the

first year of teaching with an online or in person workshop series to continue to build the self-efficacy levels of female agricultural educators in Arizona.

At the University of Arizona agriculture teacher preparation program, it is recommended that curriculum be created on the importance of work-life balance. This material should be presented in the Fall semester prior to student teaching and should be referenced again during exit interviews following student teaching in the Spring semester. Proposed topics for such curriculum include:

- Setting personal and professional goals
- Setting boundaries with your time
- Becoming efficient with your work time
- Nurturing personal relationships
- Recognizing signs of burnout
- Exploring personal interests both in and outside of agriculture
- How/who to reach out for help in the agricultural education community if you need support

Conversations about work-life balance should be common in teacher preparation programs and should be addressed with an honest awareness of the issues facing today's agricultural educators.

Lastly, although nothing directly can be done to address individual female agricultural educator dissatisfaction with certain Classroom Instruction, FFA, and SAE job responsibilities, the presence of these responsibilities should be communicated to new female agricultural educators during the teacher preparation program. In addition, coping strategies on how to efficiently handle these challenges in a real-life work environment should also be discussed during this time. Adopting this practice would raise the self-efficacy of female agricultural

educators by making them feel better prepared when they eventually encounter these challenges in the field.

REFERENCES

- Adams, A. G., King, L. A., & King, D. W. (1996). Relationships of job and family involvement, family social support, and work-family conflict with job and life satisfaction. *Journal of Applied Psychology, 4*(4), 411-420
- Arizona Agricultural Teachers Association. (2014). *Constitution, by-laws, policy and procedures manual*. <https://drive.google.com/file/d/0ByerlQOG42-qa19ZbEwxb2RPQWs/view>
- Arizona Agricultural Teachers Association. (2020). *2020-2021 Arizona agricultural education directory*. <https://www.azagteachers.net>
- Arizona Supreme Court. (2009). *Planning for parenting time: Arizona's guide to parents living apart*. <https://www.azcourts.gov/portals/31/parentingTime/PPWguidelines.pdf>
- Ary, D., Jacobs, L., & Razavieh, A. (2002). *Introduction to research in education* (6 ed.). Wadsworth Cengage Learning.
- Ary, D., Jacobs, L., & Sorensen, C. (2010). *Introduction to research in education* (8 ed.). Wadsworth Cengage Learning.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
- Bandura, A. (1994). Self-efficacy. In Ramachaudran, V. S. (Ed.), *Encyclopedia of human behavior* (pp. 71-81). Academic Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Baxter, L., Stephens, C., & Thayer-Bacon, B. J. (2011). Perceptions and barriers of four female agricultural educators across generations: A qualitative study. *Journal of Agricultural Education, 52*(4), 13-23.

- Boone, H. N., & Boone, D. A. (2007). Problems faced by high school agricultural education teachers. *Journal of Agricultural Education*, 48(2), 36-45.
<https://doi.org/10.5032/jae.2007.02036>
- Bowen, B. E., & Rumberger, C. L. (2002). Advancing agricultural education within the context of an increasingly diverse society. *Journal of Agricultural Education*, 43(1), 1-11.
- Bruening, T. H., & Hoover, T. S. (1991). Personal life factors as related to effectiveness and satisfaction of secondary agricultural teachers. *Journal of Agricultural Education*, 32(4), 37-43. <https://oi.org10.5032/jae.1991.04037>
- Buehler, D. B. (2008). The evolving role of women in agricultural education. *Making a Difference*. <https://www.ffa.org/ageducators/mad/issues/0804/story3.cfm>
- Buehler, D. B. (2009). Agricultural education: Career or lifestyle? *Making a Difference*. <https://www.ffa.org/ageducators/mad/issues/0909/story2.cfm>
- Camp, W. G. (1998). *A national study of the supply and demand of teachers of agricultural education in 1996-1998*. Virginia Polytechnic Institute and State University.
<https://www.aged.vt.edu/pubs/s-d-98.pdf>
- Camp, W. G. (2000). *A national study of the supply and demand for teachers of agricultural education in 1996-1998*. Virginia Tech University.
<https://www.naae.org/teachag/supplyanddemand.cfm#sd>
- Cano, J., & Miller, G. (1992). A gender analysis of job satisfaction, job satisfier factors, and job dissatisfier factors of agricultural education teachers. *Journal of Agricultural Education*, 33(3), 40-46.

- Carmona, C., Buunk, A. P., Peiro, J. M., Rodriguez, I., & Bravo, M. J. (2006). Do social comparison and coping styles play a role in the development of burnout? Cross-sectional and longitudinal findings. *Journal of Occupational & Organizational Psychology*, 79(1), 85-99. <https://doi.org/10.1348/096317905X40808>
- Castillo, J. & Cano, J. (1999). A comparative analysis of Ohio agricultural teachers' level of job satisfaction. *Journal of Agricultural Education*, 40(4), 67-79. <https://doi.org/10.5032/jae.1999.04067>
- Castro, A. J., Kelly, J., & Shih, M. (2010). Resilience strategies for new teachers in high-needs areas. *Teaching and Teacher Education*, 26(3), 622-629. <https://doi.org/10.1016/j.tate.2009.09.010>
- Chaney, C. A. (2007). *Work-life variables influencing attrition among beginning agriscience teachers of Texas* (Doctoral dissertation). <https://txspace.tamu.edu/>
- Chapman, D. W. (1984). Teacher retention: The test of a model. *American Educational Research Journal*, 21(3), 645-658.
- Chapman, D. W., & Hutcheson, S. M. (1982). Attrition from teaching careers: A discriminant analysis. *American Educational Research Journal*, 19(1), 93-105.
- Cheng, M., & Brown, R. S. (1992). *A two-year evaluation of the peer support pilot project: 1990-1992*. Toronto Board of Education.
- Cinamon, R. G., & Rich, Y. (2005). Work-family conflict among female teachers. *Teaching and Teacher Education*, 21(4), 365-378. <https://doi.org/10.1016/j.tate.2004.06.009>
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Sage.

- Creswell, J. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Croom, D. B. (2003). Teacher burnout in agricultural education. *Journal of Agricultural Education*, 44(2), 1-13.
- Crutchfield, N. (2010). *The relationship of work engagement, work-life balance, and occupational commitment on the decisions of agricultural educators to remain in the teaching profession* (Doctoral dissertation).
<https://hdl.handle.net/1969.1/ETDTAMU2010-05-8055>
- Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach? *Journal of Teacher Education*, 53(4), 286-302.
- Day, C. (2008). Committed for life? Variations in teachers' work, lives and effectiveness. *Journal of Educational Change*, 9(3), 243-260. <https://doi.org/210.1007/s10833-10007-19054-10836>
- Day, C., Elliot, B., & Kington, A. (2005). Reform, standards, and teacher identity: Challenges of sustaining commitment. *Teaching & Teacher Education*, 21(5), 563-577.
<https://doi.org/510.1016/j.tate.2005.1003.1001>
- Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method* (2nd ed.). John Wiley & Sons.
- Eck, C. J., & Edwards, M. C. (2019). Teacher shortage in school-based, agricultural education (SBAE): A historical review. *Journal of Agricultural Education*, 60(4), 223-239.
<https://doi.org/10.5032/jae.2019.04223>

- Elliott, K. S., Dainty, J. D., & Jones, J. (2017). A descriptive study of factors influencing the retention of secondary agricultural teachers. *Career & Technical Education Research*, 42(1), 3. <https://doi.org/10.5328/cter42.1.3>
- Estepp, C. M., Thoron, A. C., Roberts, T. G., & Dyer, J. E. (2014). Variations in professional development needs of Florida agricultural education teachers based on gender, school level, and experience. *Career and Technical Education Research*, 39(1), 23-36.
- Evans, E. D., & Tribble, M. (1986). Perceived teaching problems, self-efficacy, and commitment to teaching among preservice teachers. *Journal of Educational Research*, 80(2), 81-85. <https://www.jstor.org/stable/40539614>
- Farkas, S., Johnson, J., & Foleno, T. (2000). *A sense of calling: Who teaches and why*. Public Agenda.
- Faulkner, S. L., & Trotter, S. P. (2017). Data saturation. In J. Matthes, C. S. Davis & R. F. Potter (Eds.), *The International Encyclopedia of Communication Research Methods*. John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118901731.iecrm0060>
- Field, A. (2017). *Discovering statistics using IBM SPSS Statistics* (5th ed). Sage.
- Firestone, W. A., & Pennell, J. R. (1993). Teacher commitment, working conditions, and differential incentive policies. *Review of Educational Research*, 63(4), 489-525.
- Foster, B. (2001). Choices: A dilemma of women agricultural education teachers. *Journal of Agricultural Education*, 42(3), 3-10. <https://doi.org/10.5032/jae.2001.03001>
- Foster, B. (2003). Profiling female teachers of agricultural education at the secondary level. *Journal of Career and Technical Education*, 19(2). <https://www.ejournals.ejournals.vtlibraries.net/JCTE/article/view/614/877>

- Foster, R., Pikkert, J., & Husmann, D. (1991). Self-perception of gender bias among women agricultural teachers. *Proceedings of the National Agricultural Education Research Meeting* (pp. 238-245).
- Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2016). *How to design and evaluate research in education*. McGraw-Hill Education.
- Fuller, E. (2003). *Begining teacher retention rates for TxBESS and non-TxBESS teachers*. Unpublished manuscript. State Board for Educator Certification.
- Gardner, D. P. (1983). *A nation at risk*. The National Commission on Excellence in Education, US Department of Education.
- Gilman, D., Peake, J. B., & Parr, B. (2012). A gender analysis of job satisfaction levels of agricultural education teachers in Georgia. *Journal of Career and Technical Education*, 27(2), 98-113.
- Grissmer, D. W., & Kirby, S. N. (1987). *Teacher attrition: The uphill climb to staff the nation's schools*. The RAND Corporation.
- Guttek, B. A., Searle, S., & Klepa, L. (1991). Rational versus gender role explanations for work-family conflict. *Journal of Applied Psychology*, 76(4), 560-568.
<https://doi.org/510.1037/0021-9010.1076.1034.1560>
- Hainline, M. S., Ulmer, J. D., Ritz, R. R., Burris, S., & Gibson, C. D. (2015). Career and family balance of Texas agricultural education teachers by gender. *Journal of Agricultural Education*, 56(4), 31-46. <https://doi.org/10.5032/jae.2015.04031>
- Hasselquist, L., Herndon, K., & Kitchel, T. (2017). School culture's influence on beginning agricultural teachers' job satisfaction and teacher self-efficacy. *Journal of Agricultural Education*, 58(1), 267-279. <https://doi.org/10.5032/jae.2017.01267>

HelpGuide. (n.d.). *Burnout prevention and treatment*.

<https://www.helpguide.org/articles/stress/burnout-prevention-and-recovery.htm>

Herzberg, F. (1968). One more time: How do you motivate employees? *Harvard Business Review*, *46*, 53-62.

Herzberg, F., Mausner, B., & Snyderman, B. B. (1959). *The motivation to work*. John Wiley & Sons.

Holbrook, A., Krosnick, J., & Pfent, A. (2007). The causes and consequences of response rates in surveys by the news media and government contractor survey research firms. In J. M. Lepkowski, C. N. Tucker, M. J. Brick, E. D. De Leeuw, L. Japec, P. J. Lavrakas, M. W. Link, & R. L. Sangster (Eds.), *Advances in telephone survey methodology*. Wiley.

Hughes, G. D. (2012). Teacher retention: Teacher characteristics, school characteristics, organizational characteristics, and teacher efficacy. *The Journal of Educational Research*, *105*(4), 245-255.

Ingersoll, R., & Strong, M. (2012). What research tells us about the impact of induction and mentoring programs for beginning teachers. *Yearbook of the National Society for the Study of Education*, *111*(2), 466-490.

Inman, D., & Marlow, L. (2004). Teacher retention: Why do beginning teachers remain in the Profession? *Education*, *124*(4), 605-614. <https://eric.ed.gov/?id=EJ705767>

Johnson, A. G. (1997). *The Gender Knot*. Temple University Press.

Johnson, S. M., & Birkeland, S. E. (2003). Pursuing a “sense of success”: New teachers explain their career decisions. *American Educational Research Journal*, *40*(3), 581-617.

<https://doi.org/10.3102/00028312040003581>

- Keene, J. R., & Reynolds, J. R. (2005). The job costs of family demands: Gender differences in negative family-to-work spillover. *Journal of Family Issues, 26*(3), 275-299.
- Keeter, S., Kennedy, C., Dimock, M., Best, J., & and Craighill, P. (2006). Gauging the impact of growing nonresponse on estimates from a national RDD telephone survey. *Public Opinion Quarterly, 70*(5), 759-779.
- Kelsey, K. (2007). Overcoming gender bias with self-efficacy: A case study of women agricultural education teachers and preservice students. *Journal of Agricultural Education, 48*(1), 52-63. <https://doi.org/10.5032/jae.2007.01052>
- Kennedy, E., Cameron, R. J., Greene, J. (2012). Transitions in the early years: Education and child psychologists working to reduce the impact of school culture shock. *Educational & Child Psychology, 29*(1), 19-31.
- Kent, A. M., Green, A. M., & Feldman, P. (2012). Fostering the success of new teachers: Developing lead teachers in a statewide teacher mentoring program. *Current Issues in Education, 15*(1), 1-17.
- Kersaint, G., Lewis, J., Potter, R., & Meisels, G. (2007). Why teachers leave: Factors that influence retention and resignation. *Teaching and Teacher Education, 23*(6), 775-794. <https://doi.org/710.1016/j.tate.2005.1012.1004>
- Kitchel T., Smith, A. R., Henry, A. L., Robinson, J. S., Lawver, R. G., Park, T. D., & Schell, A. (2012). Teacher job satisfaction and burnout viewed through social comparisons. *Journal of Agricultural Education, 53*(1), 31-44. <https://doi.org/10.5032/jae.2012.01031>
- Knight, J. (1987). Current status of women teachers of vocational agriculture in Ohio and their perception of their place in the profession. *Proceedings of the National Agricultural Education Research Meeting* (pp. 223-236).

- Knight, J. A., & Bender, R. E. (1978). Why vocational agricultural teachers in Ohio leave teaching. *The Journal of the American Association of Teacher Educators in Agriculture*, 19(3), 11-17. <https://doi.org/10.5032/jaatea.1978.03011>
- Knobloch, N. A. (2006). Exploring relationships of teachers' sense of efficacy in two student teaching programs. *Journal of Agricultural Education*, 47(2), 36-47. <https://doi.org/10.5032/jae.2006.02036>
- Koziol, N. N., Arthur, A. M., Hawley, L. R., Bovaird, J. A., Bash, K. L., McCormick, C., & Welch, G. W. (2015). Identifying, analyzing, and communicating rural: A quantitative perspective. *Journal of Research in Rural Education*, 30(4), 1-14.
- Kumar Das, S., & Tripathi, H. (2014). Extension education: Myth or reality. *International Journal of Bio-Resource & Stress Management*, 5(3), 467-474. <https://doi.org/10.5958/0976-4038.2014.00598.3>
- Langley, G. C., Martin, M., & Kitchel, T. (2014). Novice agricultural teachers' general self-efficacy and sense of community connectedness. *Journal of Agricultural Education*, 55(4), 1-11. <https://doi.org/10.5032/jae.2014.04001>
- Launius, C. & Hassel, H. (2015). *Threshold concepts in women's and gender studies: Ways of seeing, thinking and knowing* (Vol. 1). Routledge.
- Lee, R. M., Draper, M. & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviours, and psychological distress: Testing a mediator model. *Journal of Counselling Psychology*, 48(3), 310-318. <https://doi.org/10.1037//0022-0167.48.3.310>
- Lemons, L. L., Brashears, M. T., Burriss, S., Meyers, C., & Price, M. A. (2015). Factors contributing to attrition as reporters by leavers of secondary agricultural programs. *Journal of Agricultural Education*, 56(4), 17-30. <https://doi.org/10.5032/jae.2015.04017>

- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Sage.
- Louis, K. S. (1998). Effects of teacher quality of work life in secondary schools on commitment and sense of efficacy. *School Effectiveness and School Improvement*, 9(1), 1-27.
<https://doi.org/10.1080/0924345980090101>
- Luthans, F. (1973). *Organizational behavior* (6th ed.). McGraw-Hill.
- Martin, M. M., & Kitchel, T. K. (2015). Critical theory view of the National FFA Convention. *Journal of Agricultural Education*, 56(2), 122-137.
<https://doi.org/10.5032/jae.2015.02122>
- Mattox, K. E. (1974). Why teachers quit. *The Agricultural Education Magazine*, 47(6), 140-142.
- Menzies, T., Williams, L., & Zimmermann, T. (2016). *Perspectives on data science for software engineering*. Elsevier Inc.
- Moser, E. M., & McKim, A. J. (2020). Teacher retention: A relational perspective. *Journal of Agricultural Education*, 61(2), 263-275. <https://doi.org/10.5032/jae.2020.02263>
- Mullins, L. J. (1996). *Management and organizational behaviour* (4th ed.). Pitmon Publishing.
- Mumford, D. B. (1998). The measurement of culture shock. *Social Psychiatry and Psychiatry Epidemiology*, 33, 149-154.
- Murphy, P., DeArmond, M., & Guin, K. (2003). A national crisis or localized problems? Getting perspective on the scope and scale of the teacher shortage. *Education Policy Analysis Archives*, 11(23). <https://doi.org/10.14507/epaa.v11n23.2003>
- Murray, K., Flowers, J., Croom, B., & Wilson, B. (2011). The agricultural teacher's struggle for balance between career and family. *Journal of Agricultural Education*, 52(2), 107-117.
<https://doi.org/10.5032/jae.2011.02107>

- Myers, B. E., Dyer, J. E., & Washburn, S. G. (2005). Problems facing beginning agricultural teachers. *Journal of Agricultural Education*, 46(3), 47-55.
<https://doi.org/10.5032/jae.2005.03047>
- Nagy, C. J., & Wang, N. (2007). The alternate route teachers' transition to the classroom: Preparation, support, and retention. *NASSP Bulletin*, 91(1), 98-113.
<https://doi.org/10.1177/0192636506299153>
- National Association for Agricultural Educators. (n.d.). *What is Agricultural Education?*
<https://www.naae.org/whatisaged/>
- Osborne, E. W. (n.d.). *National research agenda: Agriculture research and communication, 2007-1010*. University of Florida, Department of Agricultural Education and Communication. <http://www.aaaeonline.org/nationalresearchagenda.php>
- Oshagbemi, T. (1999). Overall job satisfaction: How good are single versus multiple-item measures? *Journal of Managerial Psychology*, 14(5), 388-403.
- Özpehlivana, M., & Acar, A. Z. (2015). Assessment of a multidimensional job satisfaction instrument. *Procedia-Social and Behavioral Sciences*, 210, 283-290.
- Paulsen, T. H., Anderson, R. G., & Tweeten, J. F. (2015). Concerns expressed by agricultural education preservice teachers in a twitter-based electronic community of practice. *Journal of Agricultural Education*, 56(3), 210-226.
- Pirkle, S. F. (2011). Stemming the tide: Retaining and supporting science teachers. *Science Educator*, 20(2), 42-46.
- QuestionPro. (2020). *Semantic differential scale*. <https://www.questionpro.com/semantic-differential-scale.html>

- Quote Investigator. (2015). *With great power comes great responsibility*.
<https://quoteinvestigator.com/2015/07/23/great-power/>
- Ricketts, J. C., Stone, R., & Adams, E. (2006). Female agricultural educators in Georgia. *Journal of Southern Agricultural Education Research*, 56(1), 52-61.
<https://pubs.aged.tamu.edu/jsaer/pdf/Vol56/56-01-052.pdf>
- Roberts, T. G., & Dyer, J. E. (2004). Inservice needs of traditionally and alternatively certified agriculture teachers. *Journal of Agricultural Education*, 45(4), 57-70.
- Robinson, J. S., & Edwards, M. C. (2012). Assessing the teacher self-efficacy of agricultural instructors and their early career employment status: A comparison of certification types. *Journal of Agricultural Education*, 53(1), 150-161.
<https://doi.org/10.5032/jae.2012.01150>
- Rocca, S. J., & Washburn, S. G. (2006). Comparison of teacher efficacy among traditionally and alternatively certified agriculture teachers. *Journal of Agricultural Education*, 47(3), 58-69. <https://doi.org/10.5032/jae.2006.03058>
- Ross, J. A., Cousins, J. B., & Gadalla, T. (1996). Within-teacher predictors of teacher efficacy. *Teaching & Teacher Education*, 12(4), 385-400. [https://doi.org/10.1016/0742-051X\(95\)00046-M](https://doi.org/10.1016/0742-051X(95)00046-M)
- Saucier, P. (2010). Level of influence of selected factors upon Missouri agricultural education teachers' choice to instruct agricultural mechanics curriculum [Unpublished doctoral dissertation]. University of Missouri.
- Sherratt, E. B. (2016). *Creating coherence in the teacher shortage debate: What policy leaders should know and do*. Education Policy Center, American Institutes for Research.

- Shinn, G., Baker, M., & Briers, G. E. (2007). Response patterns: Effect of day of receipt of an e-mailed survey instrument on response rate, response time, and response quality. *Journal of Extension, 45*(2).
- Shirom, A. (2003). Job-related burnout. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 245-265). American Psychological Association.
- Singh, K., & Billingsley, B. S. (1996). Intent to stay in teaching. *Remedial & Special Education, 17*(1), 37. <https://doi.org/10.1177/074193259601700105>
- Solomonson, J. K. & Retallick, M. S. (2018). Over the edge: Factors nudging mid-career, school based agricultural teachers out of the profession. *Journal of Agricultural Education, 59*(4), 1-19. <https://doi.org/10.5032/jae.2018.04001>
- Sorensen, T. J., McKim, A. J., & Velez, J. J. (2017). A national study of work characteristics and work-family conflict among secondary agricultural educators. *Journal of Agricultural Education, 58*(2), 214-231.
- Spector, P. (1992). *Summated rating scale construction : An introduction*. Sage.
- Spuhler, L. and A. Zetler (1993). *Montana beginning teacher support program*. Montana State Board of Education.
- Spuhler, L. and A. Zetler (1994). *Montana beginning teacher support program*. Montana State Board of Education.
- Spuhler, L. and A. Zetler (1995). *Montana beginning teacher support program*. Montana State Board of Education.
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives, 27*(35), 1-40.

- Thieman, E. B., Henry, A. L., & Kitchel, T. (2012). Resilient agricultural educators: Taking stress to the next level. *Journal of Agricultural Education*, 53(1), 81-94.
- Tippens, A., Ricketts, J. C., Morgan, A. C., Navarro, M., & Flanders, F. B. (2013). Factors related to teachers' intention to leave the classroom early. *Journal of Agricultural Education*, 54(4), 58-72. <https://doi.org/10.5032/jae.2013.04058>
- Tyack, D., & Hansot, E. (1992). *Learning together: A history of coeducation in American public schools*. Russell Sage Foundation.
- United States Department of Labor. (2018). *Civilian labor force by sex: 1948-2006 annual averages*. <https://www.dol.gov/agencies/wb/data/facts-over-time/women-in-the-labor-force#civilian-labor-force-by-sex>
- Visser, P. S., Krosnick, J. A., Marquette, J., & Curtin, M. (1996). Mail surveys for election forecasting? An evaluation of the Colombia dispatch poll. *Public Opinion Quarterly*, 60(2), 181-227. <https://www.doi.org/10.1086/297748>
- Wallace, M. (2019). Assessment of Arizona agricultural educators and applications of agricultural mechanics (Master's thesis). University of Arizona.
- Winters, M. A., & Cowen, J. M. (2013). Would a value-added system of retention improve the distribution of teacher quality? A simulation of alternative policies. *Journal of Policy Analysis and Management*, 32(3), 634-654.
- Wolf, K. J. (2011). Agricultural education perceived teacher self-efficacy: A descriptive study of beginning agricultural education teachers. *Journal of Agricultural Education*, 52(2), 163-176. <https://doi.org/10.5032/jae.2011.02163>

APPENDIX A: IRB APPROVAL LETTERS

EXEMPTION DETERMINATION
(Common Rule –Effective January, 2018)

November 11, 2020

Dear John Elliot:

The HRPP determined on November 11, 2020 that this research meets the criteria for Exemption in accordance with 45 CFR 46.104. This determination applies only to the interview activities described in this IRB submission and does not apply should any changes be made. As the questionnaire procedures and documents are not final, these procedures/documents have not been approved at this time. When the documents are finalized, please submit an IRB Amendment to add the finalized questionnaire, modified consent document, and recruiting material.

Of note, HRPP staff changed file name of the consent document to make it clearer and removed the compensation explanation since it does not apply to the interview portion of the research. If this needs to be modified, please submit an IRB Amendment with the corrected documents.

Please use the reviewed, stamped study documents (available in iRIS) for applicable study procedures (e.g. recruitment, consent, data collection, etc...). If changes are needed to stamped study documents or study procedures, you must immediately contact the IRB. You may be required to submit a new request to the IRB.

Your exemption is good for three (3) years from the Approval Start Date (11/11/2020). Thirty days prior to that time, you will be sent an Administrative Check-In Notice to provide an update on the status of your study.

If you have any questions, please contact the IRB Administrative Office at 1-979-458-4067, toll free at 1-855-795-8636.

Sincerely,

IRB Administration

Dec 3, 2020 11:15:38 AM CST

Courtney Meyers
Ag Education and Communication

Re: IRB2020-959 Job Responsibilities that Influence Female Secondary Agricultural Educator
Job Satisfaction in Arizona

Findings: *Per Texas A&M IRB this research is exempt. Texas A&M IRB decision letter and protocol are attached within the IRB.*

Dear Dr. Courtney Meyers, Scott Burris:

The Human Research Protection Program determined that your project meets at least one of the federal exempt categories under 45 CFR 46 Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording). The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

The determination was made on December 3, 2020. Annual review is not required, and no expiration date will be listed on your letter.

The research must follow Texas Tech University's Operating Procedures, the Belmont Report, and 45 CFR 46. If changes to the approved protocol occur, a **Modification Submission** must be reviewed and approved by the IRB before implementation. Please contact the Human Research Protection Program to determine if a modification is needed or submit a Modification Submission in Cayuse IRB. Please be aware that changes to the research protocol may prevent the research from qualifying for exempt review and require submission of a new IRB application or other materials to the Texas Tech University IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If a deviation, unanticipated problem or adverse event happens during your research, please notify the Texas Tech University, Human Research Protection Program as soon as possible (45 CFR 46). We will ask for a complete explanation of the event and for you to submit an **Incident Submission** in Cayuse IRB.

Your study may be selected for a Post-Approval Monitoring (PAM). You will be notified if your study has been chosen for a PAM. A PAM investigator may request to observe your data collection procedures, including the consent process.

Once your research is complete, please use a **Closure Submission** to archive this study. IRBs that remain active are subject to audit by the IRB.

Sincerely,



Kelly Cukrowicz, Ph.D.
Chair Texas Tech University Institutional Review Board
Professor, School of Veterinary Medicine

Human Research Protection Program
357 Administration Building
Lubbock, Texas 79409-1075
T 806.742.2064
www.hrpp.ttu.edu

APPENDIX B: INTERVIEW PARTICIPANT CONTACT EMAIL

Email Subject Line: Dissertation Research: Interview Request

Dear (Name),

My name is Miraj Wallace and I am an agricultural educator teaching in Seligman, AZ. I am currently pursuing a doctorate degree in the Doc@Distance program through Texas A&M and Texas Tech Universities. For my dissertation, I am examining the unique experiences of current and former female agricultural educators in Arizona to discover their perceptions of their job responsibilities (Classroom Instruction, FFA, and SAE) and identify areas where greater career support is needed. Given your experience as a female agricultural educator in Arizona, I am inviting you to take part in this research study by participating in a one-on-one interview with me. Your input is extremely important and greatly appreciated in contributing to this research.

The interview will require approximately one hour of your time to complete. The interview will be conducted via Zoom at a time of your convenience so as to allow for safety during this time of the COVID-19 pandemic. There are no associated risks in participating in this interview. All individuals and their responses will remain confidential. Two Institutional Review Boards responsible for human subjects research at Texas A&M and Texas Tech Universities reviewed this research project and determined that there was minimal risk to research participants. If you choose to participate in this study, please respond back to this email and I will send you additional information and work to set up a time for the interview that is most convenient for you.

Thank you for your time and consideration in participating in this interview. The data collected will contribute information to the agricultural education industry in Arizona by revealing areas where greater support for female agricultural educators is needed. If you have any additional questions about this research study, please do not hesitate to contact me or my Dissertation Committee Chair, Dr. John Elliot.

Sincerely,

Miraj Wallace
Doc@Distance Doctoral Candidate
Agricultural Education
mwallace@email.arizona.edu

John Elliot, Ph.D.
Professor of Agricultural Education
Department of Agricultural
Leadership, Education, and Communications
jelliot@tamu.edu

APPENDIX C: INTERVIEW INFORMED CONSENT FORM

Title of Research Study: Job Responsibilities that Influence Female Secondary Agricultural Educator Job Satisfaction in Arizona

Investigator: Dr. John Elliot

Funded/Supported By: This research is funded/supported by Texas A&M University.

Why are you being invited to take part in a research study?

You are being asked to participate because you are a female agricultural educator in Arizona.

What should you know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

Who can I talk to?

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team: Dr. John Elliot (979-458-3391 or jelliot@tamu.edu) or Miraj Wallace (520-668-8079 or mwallace@email.arizona.edu).

This research has been reviewed and approved by the Texas A&M Institutional Review Board (IRB). You may talk to them at 1-979-458-4067, toll free at 1-855-795-8636, or by email at irb@tamu.edu, if

- You cannot reach the research team.
- Your questions, concerns, or complaints are not being answered by the research team.
- You want to talk to someone besides the research team.
- You have questions about your rights as a research participant.
- You want to get information or provide input about this research.

Why is this research being done?

The interview in which you are being asked to participate is part of a research study seeking to illuminate where greater support is needed for female agricultural educators in Arizona. The researcher is specifically interested in how the participants view their job responsibilities (Classroom Instruction, SAE, FFA). The purpose of this study is to gain a better understanding of the challenges which exist in the agricultural education industry and how these challenges can be overcome through mentoring and additional support measures.

How long will the research last?

We expect that you will be in this research study for approximately 1 hour for a personal interview.

How many people will be studied?

We expect to enroll about 61 people in this research study at this site. Approximately 61 people in the entire study nationally *will be enrolled*.

What happens if I say “Yes, I want to be in this research”?

- You will participate in one (1) interview of approximately one hour with a member of the research team, Miraj Wallace.
- You will be asked a series of questions about your unique experiences working as a female agricultural educator in Arizona. You are not required to answer the questions. You may pass on any question that makes you feel uncomfortable. At any time, you may notify the researcher that you would like to stop the interview and your participation in the study. There is no penalty for discontinuing participation.
- The interview will be video, and audio recorded. Your agreement to be recorded is required of you as a participant.
- The interview will take place at a location of your choosing. The interview may also be conducted via Zoom to allow for COVID-19 travel restrictions and safety guidelines.
- The interview will take place in the 2020 Fall semester.

What happens if I do not want to be in this research?

You can leave the research at any time and it will not be held against you.

What happens if I say “Yes”, but I change my mind later?

You can leave the research at any time and it will not be held against you. The research already conducted with you will be included in the final research report if you decide to withdraw and are agreeable to your collected data still being used in the study. If you are not agreeable to your collected data being used in the final research report, your data will be securely shredded and discarded.

Is there any way being in this study could be bad for me?

There are no risks to you participating in this study.

Will being in this study help me in any way?

We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include contributing information to the agricultural education industry in Arizona by revealing areas where greater support for female agricultural educators is needed.

Is there any compensation?

There is no compensation for participating in this interview portion of the research project. However, you will be asked at a later date to complete an online questionnaire for which there will be an incentive. As an incentive for your time, upon your completion of the questionnaire you will be entered into a drawing to win a \$100 Amazon gift card. The questionnaire software, Qualtrics, will identify the email addresses of respondents to be entered into the drawing for the gift card. The sooner you complete the questionnaire, the more times your name will be entered into the drawing.

- Respondents in the first 24 hours of questionnaire distribution = 5 entries in the drawing

- Respondents in the 25-48 hour window of questionnaire distribution = 4 entries in the drawing
- Respondents in the 49-72 hour window of questionnaire distribution = 3 entries in the drawing
- Respondents in the 73-96 hour window of questionnaire distribution = 2 entries in the drawing
- Respondents beyond 96 hours of questionnaire distribution = 1 entry in the drawing

What happens to the information collected for the research?

Efforts will be made to limit the use and disclosure of your personal information, including research study and other records, to people who have a need to review this information. We cannot promise complete privacy. Organizations that may inspect and copy your information include the TAMU HRPP/IRB and other representatives of this institution.

The interview will be audio and video recorded; however, your name will not be recorded on the tape. Your name and identifying information will not be associated with any part of the written report of the research unless you state that you would like your name and identifying information associated with this research. All your information and interview responses will be kept confidential. The researchers will not share your individual responses with anyone outside the research team.

Data from this study will be kept for 3 years in a locked and secured location in Dr. John Elliot's office on the TAMU campus. After such time, the data will be safely destroyed.

APPENDIX D: INTERVIEW GUIDE

Pre-interview

Review consent to participate in research. Ask if there are any other questions before the start of the interview. Answer any questions participant has, and then start the interview.

Interview Questions

1. Is teaching agriculture your first career? What other careers have you had?
2. What or who initially motivated you to want to become an agricultural educator?
3. Are you involved with any personal agricultural enterprises?
4. The FFA Creed speaks about “the joys and discomforts of agricultural life.” Let’s focus on the positive aspect. What are some of the “joys” you have experienced while teaching?
5. Which job responsibilities do you enjoy the most and why? (Ask probing questions about Classroom Instruction, FFA, and SAE responsibilities)
6. Now that we’ve discussed some of the positive aspects, let’s switch to some of the challenges. What are some of the “discomforts” you have faced during your years of teaching?
7. Compare your teaching experience prior to the COVID-19 pandemic with how it is now. What new challenges have you faced?
8. Which job responsibilities are the most challenging for you and why? (Ask probing questions about Classroom Instruction, FFA, and SAE responsibilities)
9. What effect has being an agricultural educator had on your personal life (family and relationships)?
10. Describe the strategies that you use to achieve work/life balance.
11. Do you feel like you face unique challenges (gender bias) as a female in this profession?
12. Have you ever felt like leaving the teaching profession? If yes, what was behind that consideration?
13. What or who convinced you to stay in the teaching profession?
14. Thank you for sharing your experiences and perceptions on the joys and discomforts of teaching agricultural education. The last section of our interview will focus on your experience with the AATA New Teacher Mentoring Program. Describe your participation in this program.
15. Do you think the gender of your mentor affected your experience as a new teacher? How so?
16. What could have been done to improve your mentoring experience?

Post Interview

Thank you so much for participating in this research project. If you have any other questions or concerns about this interview, please do not hesitate to follow up with me.

APPENDIX E: INSTRUMENT

Female Agricultural Educator Job Satisfaction

Start of Block: Consent Form for Questionnaire

Q1

Consent Form for Questionnaire

INSTRUCTIONS

Dear Participant,

You are being asked to participate in a research study. The purpose of this research study is to examine the unique experiences of female agricultural educators in Arizona to discover their perceptions of their job responsibilities (Classroom Instruction, FFA, and SAE) and identify areas where greater career support is needed. Your input is extremely important and greatly appreciated in contributing to this research. The duration of this questionnaire is approximately **15 minutes**. Your participation in this research study is voluntary and you do not have to participate. An Institutional Review Board responsible for human subjects research at Texas A&M University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research. This document contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. Please read the following section on Research Participation and Consent. Click on your choice of radio buttons at the end of the consent form. To move forward in this study questionnaire, please press the forward button at the bottom of the page. To move backwards, please press on the backward button at the bottom of the page. Please be sure to read and respond to each question.

Research Participant Information and Consent

Title of the study: **Job Responsibilities that Influence Female Secondary Agricultural Educator Job Satisfaction in Arizona**

Principal Investigator: Miraj Wallace

Email: mwallace@email.arizona.edu

Committee Chair: Dr. John Elliot

Email: jelliot@tamu.edu

What Will My Participation Involve?

If you decide to participate in this research, you will be asked to complete an online questionnaire. Your participation will require approximately 15 minutes of your time. You will only be asked to complete one survey.

Are There Any Risks to Me?

There are no risks to respondents. If you chose to include your email at the end of the survey, that information will be connected to survey responses and protected to maintain confidentiality. No email addresses will be published or otherwise made public.

Is There Any Compensation?

As an incentive for your time, upon your completion of the questionnaire you will be entered into a drawing to win a **\$100 Amazon gift card**. The questionnaire software, Qualtrics, will identify the email addresses of respondents to be entered into the drawing for the gift card. The sooner you complete the questionnaire, the more times your name will be entered into the drawing.

- Respondents in the first 24 hours of questionnaire distribution = 5 entries in the drawing
- Respondents in the 25-48 hour window of questionnaire distribution = 4 entries in the drawing
- Respondents in the 49-72 hour window of questionnaire distribution = 3 entries in the drawing
- Respondents in the 73-96 hour window of questionnaire distribution = 2 entries in the drawing
- Respondents beyond 96 hours of questionnaire distribution = 1 entry in the drawing

How Will My Confidentiality Be Protected?

While there will be publications as a result of this study, your name will not be used. The information that you give in the study will be anonymous. Your name will not be collected or linked to your answers. I will not directly quote any comments you make in this survey questionnaire. Only group characteristics will be published.

The information that you provide in the study will be handled confidentially. However, there may be circumstances where this information must be released or shared as required by law. The Texas A&M Institutional Review Board may review the research records for monitoring purposes.

Whom Should I Contact If I Have Questions?

You may ask any questions about the research at any time. If you have questions about the research after you finish today, you should contact the Principal Investigator, Miraj Wallace, at mwallace@email.arizona.edu.

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program at 979-458-4067 or online at irb@tamu.edu.

Your participation is completely voluntary. You have the right to withdraw from the study at any

time.

By clicking below, I freely provide consent and acknowledge my rights as a voluntary research participant and provide consent to the Principal Investigator to utilize my responses in this questionnaire for research purposes.

I understand that I will not be requested to provide my name or any other contact information, and that all of my response will be kept confidential. I understand that I will not be penalized by not participating in this study. I understand that all data collected from this questionnaire will be reported as Means, Standard Deviations, Frequencies, and Percentages. I understand that I may refuse to answer any questions and may exit this study at any time. If I have any questions, I may contact the Principal Investigator, Miraj Wallace, by email at mwallace@email.arizona.edu.

If I agree to participate, I will click on the "I agree to participate" radio button, then click on the "Next" button, and proceed to the research questionnaire.

If I decline to participate, I will click on the "I decline to participate" radio button, then click on the "Next" button, where I will be directed away from the research questionnaire.

I agree to participate (1)

I decline to participate (2)

Skip To: End of Survey If Consent Form for QuestionnaireINSTRUCTIONS Dear Participant, You are being asked to participa... = I decline to participate

End of Block: Consent Form for Questionnaire

Start of Block: Job Responsibility Satisfaction

Q2 Job Responsibility Satisfaction

The following section will ask you to rate your satisfaction in performing various job related responsibilities in the categories of Classroom Instruction, FFA, and Supervised Agricultural Experiences (SAE).

Please answer the following questions to the best of your ability. In answering your questions, please think back to how you completed these responsibilities prior to the COVID-19 pandemic.

For example, for the responsibility "Traveling to CDEs," rate your satisfaction with traveling to CDEs when you were actually able to travel with students to these events.

Q3 Classroom Instruction Responsibilities

	Extremely Dissatisfied (1)	Dissatisfied (2)	Neutral (3)	Satisfied (4)	Extremely Satisfied (5)	Not Applicable (6)
Designing Hands On Lesson Plans (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Designing Lab Activities (51%) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lesson Delivery (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using Technology (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Setting the Classroom Environment (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing Classroom Expectations (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing Classroom Behavior (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grading (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parent/Teacher Conferencing (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Differentiation for IEP/504 Students (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

301 Duties (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Advisory Board Meetings (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making Purchase Requests (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assisting with District and State Assessments (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintaining Adequate Equipment to Teach All Standards (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional Membership Duties (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Caring for Land Lab Facilities (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintaining Curriculum and Instructional Best Practices Certifications (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping Lessons Current and Relevant to Advancements in Agriculture (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 FFA Responsibilities

	Extremely Dissatisfied (1)	Dissatisfied (2)	Neutral (3)	Satisfied (4)	Extremely Satisfied (5)	Not Applicable (6)
Coaching CDE Teams (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scheduling CDE Practices (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquiring CDE Study Resources (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recruiting Industry Experts to Coach/Judge CDEs (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fulfilling CDE Chair Duties (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traveling to CDEs (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Mentorship and Advising (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traveling to State Convention (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traveling to National Convention (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Traveling to State Association Conferences (COLT, SUMMIT Conference Series, Hindsight Conference, etc.) (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conducting FFA Fundraisers (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supervising FFA Chapter Meetings (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hosting Chapter Banquet (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conducting FFA Recruitment Activities (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitoring FFA Degree Applications (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitoring FFA Award Applications (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending District Meetings (17)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Fulfilling District Chair Duties (18)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chapter Officer Elections (19)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chapter Officer Training (20)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conducting Community Service Projects (21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supervising Livestock Projects (22)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending County Fair (23)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending State Fair (24)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending Livestock Shows (25)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 SAE Responsibilities

	Extremely Dissatisfied (1)	Dissatisfied (2)	Neutral (3)	Satisfied (4)	Extremely Satisfied (5)	Not Applicable (6)
Identifying SAE Ideas for Students (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making SAE Relevant to All Students (Buy In) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying SAE Financial Resources for Students (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitating Parental Support of SAE (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employing SAE for ALL (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conducting SAE Visits (How many visits do you do on average each academic school year?) (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitoring the Agricultural Experience Tracker (AET) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Monitoring
SAE Award
Applications
(8)

Forming
Industry
Partnerships
(How many
industry
partnerships
does your
program
have on
average
each
academic
school
year?) (9)

Monitoring
Internships
(How many
student
internships
do you
monitor on
average
each
academic
school
year?) (10)

Monitoring
County and
State Fair
Activities
(11)

Monitoring
SAE Grants
(12)

Monitoring
School-
Based
Enterprises
(13)

Attending
SAE Project
County
Extension
Meetings
(How many
extension
meetings do
you attend
on average
each
academic
school
year?) (14)

Q41 What influence (positive or negative) has the COVID-19 pandemic had on your program and your ability to fulfill your job responsibilities?

Q39 Please type any additional comments you have regarding your job responsibilities (Classroom Instruction, FFA, and SAE) that you think would further explain your responses.

End of Block: Job Responsibility Satisfaction

Start of Block: Arizona Agriculture Teachers Association (AATA) Mentoring Experience

Q6 Arizona Agriculture Teachers Association (AATA) Mentoring Experience

This next section asks you to rate your experience with the Arizona Agriculture Teachers Association as either a mentee (someone who was mentored by another experienced teacher) or a mentor (someone who mentored a new teacher).

Please answer the following questions to the best of your ability.

Q7 Have you participated in the AATA New Teacher Mentorship Program?

Yes (1)

No (2)

Skip To: End of Block If Have you participated in the AATA New Teacher Mentorship Program? = No

Q8 Have you participated in the AATA New Teacher Mentorship Program as a mentee?

Yes (1)

No (2)

Skip To: Q11 If Have you participated in the AATA New Teacher Mentorship Program as a mentee? = No

Q9 Mentee Experience

The following section will ask you to rate your satisfaction of your experience as a mentee.

Please answer the following questions to the best of your ability.

	Extremely Dissatisfied (1)	Dissatisfied (2)	Neutral (3)	Satisfied (4)	Extremely Satisfied (5)	Not Applicable (6)
Electronic Communication (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In Person Communication (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of Times Contacted (About how many times were you contacted by your mentor during your first year?) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traveling to Mentorship Meetings (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effectiveness of Mentorship Meetings (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gender of Mentor (please write "male" or "female") (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attitude/Personalit y of Mentor (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Years of Teaching Experience of Mentor (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Age of Mentor (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mentor Program Proximity (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New Teacher Induction Workshop Series (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Satisfaction with the Topics Offered in New Teacher Induction Workshop Series. What are Some Topics You Think Mentees Should Receive Instruction on in their First Year of Teaching? (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of Social Gatherings to Build Mentoring Relationships (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to Choose your Mentor (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10 As a mentee, what could have been done to improve your mentoring experience?

Q11 Have you participated in the AATA New Teacher Mentorship Program as a mentor?

Yes (1)

No (2)

Skip To: End of Block If Have you participated in the AATA New Teacher Mentorship Program as a mentor? = No

Q12 Mentor Experience

The following section will ask you to rate your satisfaction of your experience as a mentor.

Please answer the following questions to the best of your ability.

	Extremely Dissatisfied (1)	Dissatisfied (2)	Neutral (3)	Satisfied (4)	Extremely Satisfied (5)	Not Applicable (6)
Electronic Communication (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In Person Communication (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of Times Contacted (About how many times on average do you contact your mentee during their first year?) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monetary Compensation (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Traveling to Mentorship Meetings (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effectiveness of Mentee Meetings (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gender of Past Mentees (please write "male" or "female" or "both") (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attitude/Personalit y of Mentee (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mentee Program Proximity (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mentor Training You Received (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mentor Support You Received (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of Social Gatherings to Build Mentoring Relationships (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mentee Contact Reminders from AATA Leadership Chair (Contact Timeline) (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Confidence in Supporting Mentees that are Traditionally Certified (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Confidence in Supporting Mentees with Industry Certifications (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13 As a mentor, have you ever declined mentorship?

- Yes (1)
- No (2)

Skip To: Q15 If As a mentor, have you ever declined mentorship? = No

Q14 Please explain why you declined mentorship.

Q15 As a mentor, what could have been done to improve your mentorship experience?

Q40 Please type any additional comments you have regarding your experience with the AATA New Teacher Mentoring Program that you think would further explain your responses.

End of Block: Arizona Agriculture Teachers Association (AATA) Mentoring Experience

Start of Block: Demographics

Q16 Demographics

This final set of questions will assist the researcher in describing the attributes of our study population.

Please answer the following questions to the best of your ability.

Q17 What is your age as of January 1, 2021?

Q18 What is the highest educational degree you have received?

- Associate Degree (1)
 - Bachelor's Degree (2)
 - Master's Degree (3)
 - Doctoral Degree (4)
-

Q19 Which of the following best describes your teaching preparation background?

- I attended and graduated from The University of Arizona Agricultural Education program (1)
 - I attended and graduated from an Agricultural Education program from another institution (2)
 - I am Alternatively Certified (Industry Certification) (3)
 - Other (4) _____
-

Q20

How many years have you been teaching agricultural education at the secondary level?

(For example, if you are presently completing your first year, please respond "1 year"; if you are completing your second year, please respond "2 years"; etc.).

Q21 Are you in a multi-teacher program where you co-teach and/or share program responsibilities with another teacher?

Yes (1)

No (2)

Q22 What types of courses do you teach? Please check all that apply.

Animal Systems (1)

Plant Systems (2)

Environmental/Natural Resource Systems (3)

Agribusiness Systems (4)

Power, Structural, and Technical Systems (5)

Biotechnology Systems (6)

Food Products and Processing (7)

Q23 With which race do you most strongly identify?

- White (1)
 - Black or African American (2)
 - American Indian or Alaska Native (3)
 - Asian (4)
 - Native Hawaiian or Pacific Islander (5)
 - Hispanic or Latino (6)
 - Other (7)
-

Q24 What is your marital status?

- Single (1)
 - Married (2)
 - Divorced (3)
 - Widowed (4)
-

Q25 Do you have children?

Yes (If so, how many?) (1) _____

No (2)

Q26 What is your base salary?

Q27 Do you have an extended contract?

Yes (1)

No (2)

Skip To: Q28 If Do you have an extended contract? = Yes

Skip To: Q30 If Do you have an extended contract? = No

Q28 How many days is your extended contract?

Q29 How much are you paid for your extended contract?

Q30 Do you get any stipends?

Yes (If so, how much?) (1) _____

No (2)

Q31 How many students on average do you teach in a year?

Q32 How long is your average commute to work (in minutes)?

Q33 Have you ever turned down having a student teacher?

Yes (1)

No (2)

Skip To: Q35 If Have you ever turned down having a student teacher? = No

Q34 What was the reason you turned down having a student teacher?

Q35 Have you had a student teacher before?

Yes (1)

No (2)

Skip To: End of Block If Have you had a student teacher before? = No

Q36 How many student teachers have you had during your years of teaching experience?

Q37 Rank the factors that motivate(d) you to have a student teacher. ("1" being the most important, "2" being the second most important, etc.)

_____ Money/financial compensation (1)

_____ Sense of duty/contributing to the profession (2)

_____ An extra set of hands to help you accomplish more tasks (3)

_____ Acquire updated agricultural curriculum/teaching strategies (4)

_____ Gain new ideas and different world perspectives (5)

Q38 Please type any additional comments you would like to add regarding this questionnaire below.

End of Block: Demographics

APPENDIX F: PILOT TEST EMAIL

Email Subject Line: Research Questionnaire Pilot Test

Dear (Name),

I am currently conducting research as part of my dissertation through the Doc@Distance Program through Texas A&M and Texas Tech Universities. In order to address validity and reliability, I am first conducting a pilot test of my survey before I send it out to my population in Arizona. I would be extremely grateful if you could assist me by participating in my pilot test and taking my survey so that I can identify any areas of needed improvement before I send out the final survey. As an incentive for your participation, I will be drawing 1 individual at random who answers the survey in the next three days to win a \$25 Amazon gift card.

This research study is intended to assess where greater support is needed for female agricultural educators in Arizona. I am specifically interested in how the survey participants view their job responsibilities (Classroom Instruction, SAE, FFA). An Institutional Review Board responsible for human subjects research at Texas A&M University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

If you would like further information about the questionnaire, please email me at mwallace@email.arizona.edu. Thank you in advance for assisting me in completing my research!

Sincerely,

Miraj Wallace
Doc@Distance Doctoral Candidate
Agricultural Education
mwallace@email.arizona.edu

APPENDIX G: QUESTIONNAIRE PRE-NOTICE EMAIL

Email Subject Line: Pre-Notice: Research Questionnaire

Dear (Name),

You have been identified as a female Arizona secondary agricultural education teacher. You are being asked to voluntarily participate in a research study. **This week you will receive a questionnaire by email.** This research study is intended to assess where greater support is needed for female agricultural educators in Arizona. The researcher is specifically interested in how the participants view their job responsibilities (Classroom Instruction, SAE, FFA).

Please complete your questionnaire promptly upon receiving the email link. During this study you may receive up to 3 reminder emails. If you wish to opt out, please follow the questionnaire link and select "I decline to participate." **Your input is extremely important.** Results from this questionnaire will help contribute to improving the future of the Agricultural Education Teacher Preparation curriculum at the University of Arizona as well as future professional development opportunities through the Arizona Agricultural Teachers Association (AATA). An Institutional Review Board responsible for human subjects research at Texas A&M University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Additional detailed information will be emailed in the next few days. In the meantime, if you would like further information about the questionnaire, please e-mail the principal investigator Miraj Wallace at mwallace@email.arizona.edu.

Thank you in advance for assisting me in completing my research!

Sincerely,

Miraj Wallace
Doc@Distance Doctoral Candidate
Agricultural Education
mwallace@email.arizona.edu

APPENDIX H: COVER LETTER EMAIL

Email Subject Line: Dissertation Research Questionnaire

Dear (Name),

My name is Miraj Wallace and I am a doctoral candidate in the Doc@Distance program through Texas A&M and Texas Tech Universities. For my dissertation, I am examining the unique experiences of female agricultural educators in Arizona to discover their perceptions of their job responsibilities (Classroom Instruction, FFA, and SAE) and identify areas where greater career support is needed. Because you are a female agricultural educator in Arizona, I am inviting you to participate in this research study by completing an online questionnaire. Your input is extremely important and greatly appreciated in contributing to this research.

The questionnaire will require approximately 15 minutes to complete. It is recommended that you complete the questionnaire using your personal laptop or tablet instead of a mobile device. There are no associated risks in completing this questionnaire. All individuals and their responses will remain confidential. An Institutional Review Board responsible for human subjects research at Texas A&M University reviewed this research project and determined that there was minimal risk to research participants. State and federal regulations and University policies were followed to protect the rights and welfare of participants in this research. If you choose to participate in this study, please answer all questions fully and honestly and complete the questionnaire promptly. As an incentive for your time, upon your completion of the questionnaire you will be entered into a drawing to win a \$100 Amazon gift card. The questionnaire software, Qualtrics, will identify the email addresses of respondents to be entered into the drawing for the gift card. The sooner you complete the questionnaire, the more times your name will be entered into the drawing.

- Respondents in the first 24 hours of questionnaire distribution = 5 entries in the drawing
- Respondents in the 25-48 hour window of questionnaire distribution = 4 entries in the drawing
- Respondents in the 49-72 hour window of questionnaire distribution = 3 entries in the drawing
- Respondents in the 73-96 hour window of questionnaire distribution = 2 entries in the drawing
- Respondents beyond 96 hours of questionnaire distribution = 1 entry in the drawing

Thank you for your time and consideration in completing this questionnaire. The data collected will contribute information to the agricultural education industry in Arizona by revealing areas where greater support for female agricultural educators is needed. If you need any additional information or have any questions about this research study, please do not hesitate to contact me or my Dissertation Committee Chair, Dr. John Elliot.

Sincerely,

Miraj Wallace
Doc@Distance Doctoral Candidate
Agricultural Education
mwallace@email.arizona.edu

John Elliot, Ph.D.
Professor of Agricultural Education
Department of Agricultural Leadership, Education,
and Communications
jelliot@tamu.edu

APPENDIX I: INITIAL CONTACT EMAIL

Email Subject Line: Texas A&M University Research Study Questionnaire

Dear (Name),

You have been identified as a female secondary agricultural education teacher within the state of Arizona. You are being asked to voluntarily participate in a research study. This research study is intended to illuminate where greater support is needed for female agricultural educators in Arizona. The researcher is specifically interested in how the participants view their job responsibilities (Classroom Instruction, SAE, FFA).

Your responses to this questionnaire will greatly assist in providing a better understanding of the challenges which exist in the agricultural education industry for female secondary agricultural educators in Arizona and how these challenges can be overcome through mentoring and additional support measures. The questionnaire will take approximately 15 minutes to complete. Please access this questionnaire via laptop or tablet. There are no risks to your participation in completing this questionnaire. Your participation is completely voluntary. If you decide to stop participating in the study, there will be no penalty to you. The questionnaire software, Qualtrics, only identifies email addresses of respondents and non-respondents and does not link email address to response data. Your results will be kept confidential; your name will not be associated with your responses. An Institutional Review Board responsible for human subjects research at Texas A&M University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

If you have questions concerning your rights as a research subject, you may call the Texas A&M Human Subjects Protection Program at (979) 458-4067. Completing this questionnaire implies that you are giving permission for the principal investigator to use your responses for research purposes. For questions, concerns, or complaints about the study you may contact Miraj Wallace (mwallace@email.arizona.edu) or Dr. John Elliot (jelliot@tamu.edu).

If you choose to participate, here is a link to the survey: [Link]. I am asking that all questionnaires be submitted by (date), 2021.

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

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. [RemoveLink]

Thank you for your time and contribution to my research!

Sincerely,
Miraj Wallace
Doc@Distance Doctoral Candidate
Texas A&M and Texas Tech Universities

APPENDIX J: FIRST REMINDER EMAIL

Email Subject Line: Texas A&M University Research Study Questionnaire Reminder

Dear (Name),

On (distribution date), you should have received an email identifying you as a female secondary agricultural education teacher within the state of Arizona. You are being asked to voluntarily participate in a research study. This research study is intended to illuminate where greater support is needed for female agricultural educators in Arizona. The researcher is specifically interested in how the participants view their job responsibilities (Classroom Instruction, SAE, FFA).

Your responses to this questionnaire will greatly assist in providing a better understanding of the challenges which exist in the agricultural education industry for female secondary agricultural educators in Arizona and how these challenges can be overcome through mentoring and additional support measures. The questionnaire will take approximately 15 minutes to complete. Please access this questionnaire by laptop or tablet. There are no known risks to your participation in completing this questionnaire. Your participation is completely voluntary. If you decide to stop participating in the study, there will be no penalty to you. The questionnaire software, Qualtrics, only identifies email addresses of respondents and non-respondents and does not link email address to response data. Your results will be kept confidential; your name will not be associated with your responses.

If you have questions concerning your rights as a research subject, you may call the Texas A&M Human Subjects Protection Program at (979) 458-4067. Completing this questionnaire implies that you are giving permission for the principal investigator to use your responses for research purposes. For questions, concerns, or complaints about the study you may contact Miraj Wallace (mwallace@email.arizona.edu) or Dr. John Elliot (jelliot@tamu.edu).

If you choose to participate, here is a link to the survey: [Link]. I am asking that all questionnaires be submitted by (date), 2021.

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

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. [RemoveLink]

If you have already completed the questionnaire, thank you so much for your participation. Your contribution to my research and education endeavors is invaluable. Thank you for your time!

Sincerely,

Miraj Wallace
Doc@Distance Doctoral Candidate
Texas A&M and Texas Tech Universities

APPENDIX K: SECOND REMINDER EMAIL

E-mail Subject Line: Texas A&M University Research Study Questionnaire Reminder

Dear (Name),

This is a friendly reminder that on (distribution date), you should have received an email identifying you as a female secondary agricultural education teacher within the state of Arizona. You are being asked to voluntarily participate in a research study. This research study is intended to illuminate where greater support is needed for female agricultural educators in Arizona. The researcher is specifically interested in how the participants view their job responsibilities (Classroom Instruction, SAE, FFA). To the best of my knowledge, the questionnaire has not yet been completed.

Your responses to this questionnaire will greatly assist in providing a better understanding of the challenges which exist in the agricultural education industry for female secondary agricultural educators in Arizona and how these challenges can be overcome through mentoring and additional support measures. The questionnaire will take approximately 15 minutes to complete. Please access this questionnaire by laptop or tablet. There are no known risks to your participation in completing this questionnaire. Your participation is completely voluntary. If you decide to stop participating in the study, there will be no penalty to you. The questionnaire software, Qualtrics, only identifies email addresses of respondents and non-respondents and does not link email address to response data. Your results will be kept confidential; your name will not be associated with your responses.

If you have questions concerning your rights as a research subject, you may call the Texas A&M Human Subjects Protection Program at (979) 458-4067. Completing this questionnaire implies that you are giving permission for the principal investigator to use your responses for research purposes. For questions, concerns, or complaints about the study you may contact Miraj Wallace (mwallace@email.arizona.edu) or Dr. John Elliot (jelliot@tamu.edu).

If you choose to participate, here is a link to the survey: [Link]. I am asking that all questionnaires be submitted by (date), 2021.

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

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. [RemoveLink]

If you have already completed the questionnaire, thank you so much for your participation. Your contribution to my research and education endeavors is invaluable. Thank you for your time!

Sincerely,

Miraj Wallace

Doc@Distance Doctoral Candidate

Texas A&M and Texas Tech Universities

APPENDIX L: FINAL REMINDER EMAIL

Email Subject Line: Texas A&M University Research Study Questionnaire Final Reminder

Dear (Name),

This is the final reminder asking you to voluntarily participate in a research study for my dissertation research illuminating where greater support is needed for female agricultural educators in Arizona. The researcher is specifically interested in how the participants view their job responsibilities (Classroom Instruction, SAE, FFA). To the best of my knowledge, the questionnaire has not yet been completed. The study closes today (date) at 11:59pm Arizona Time. You are receiving this final reminder because I have not received a response. Input from all identified female Arizona secondary agricultural educators are vital to my research.

Your responses to this questionnaire will greatly assist in providing a better understanding of the challenges which exist in the agricultural education industry for female secondary agricultural educators in Arizona and how these challenges can be overcome through mentoring and additional support measures. The questionnaire will take approximately 15 minutes to complete. Please access this questionnaire by laptop or tablet. There are no known risks to your participation in completing this questionnaire. Your participation is completely voluntary. If you decide to stop participating in the study, there will be no penalty to you. The questionnaire software, Qualtrics, only identifies email addresses of respondents and non-respondents and does not link email address to response data. Your results will be kept confidential; your name will not be associated with your responses.

If you have questions concerning your rights as a research subject, you may call the Texas A&M Human Subjects Protection Program at (979) 458-4067. Completing this questionnaire implies that you are giving permission for the principal investigator to use your responses for research purposes. For questions, concerns, or complaints about the study you may contact Miraj Wallace (mwallace@email.arizona.edu) or Dr. John Elliot (jelliot@tamu.edu).

If you choose to participate, here is a link to the survey: [Link]. I am asking that all questionnaires be submitted by (date), 2021.

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

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. [RemoveLink]

If you have already completed the questionnaire, thank you so much for your participation. Your contribution to my research and education endeavors is invaluable. Thank you for your time!
Sincerely,

Miraj Wallace
Doc@Distance Doctoral Candidate
Texas A&M and Texas Tech Universities

APPENDIX M: LATE RESPONDER EMAIL

E-mail Subject Line: Texas A&M University Research Study Questionnaire Information Request

Dear (Name),

On (date), you should have received a final email reminder identifying you as a female secondary agricultural educator in Arizona and asking you to voluntarily participate in a research study illuminating where greater support is needed for female agricultural educators in Arizona. The researcher is specifically interested in how the participants view their job responsibilities (Classroom Instruction, SAE, FFA). To the best of my knowledge, the questionnaire has not yet been completed. The collected data will be used in my doctoral dissertation. I would like to reach out and offer one last additional opportunity to complete the questionnaire, in case you missed the deadline, as I would graciously appreciate to hear about your experiences and perceptions.

Your responses to this questionnaire will greatly assist in providing a better understanding of the challenges which exist in the agricultural education industry for female secondary agricultural educators in Arizona and how these challenges can be overcome through mentoring and additional support measures. The questionnaire will take approximately 15 minutes to complete. Please access this questionnaire by laptop or tablet. There are no known risks to your participation in completing this questionnaire. Your participation is completely voluntary. If you decide to stop participating in the study, there will be no penalty to you. The questionnaire software, Qualtrics, only identifies email addresses of respondents and non-respondents and does not link email address to response data. Your results will be kept confidential; your name will not be associated with your responses.

If you have questions concerning your rights as a research subject, you may call the Texas A&M Human Subjects Protection Program at (979) 458-4067. Completing this questionnaire implies that you are giving permission for the principal investigator to use your responses for research purposes. For questions, concerns, or complaints about the study you may contact Miraj Wallace (mwallace@email.arizona.edu) or Dr. John Elliot (jelliott@tamu.edu).

If you choose to participate, here is a link to the survey: [Link]. I am asking that all questionnaires be submitted by (date), 2021.

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

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. [RemoveLink]

If you have already completed the questionnaire, thank you so much for your participation. Your contribution to my research and education endeavors is invaluable. Thank you for your time!

Sincerely,
Miraj Wallace
Doc@Distance Doctoral Candidate
Texas A&M and Texas Tech Universities