Beginning Georgia Agriculture Teachers Motivation For Teaching Agriculture

by

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Abstract

The purpose of this study was to determine the level of motivation for tasks associated with program standards for beginning agriculture education teachers in Georgia. The participants in the study were middle and high school agriculture education teachers who had a minimum of one year of teaching experience in agricultural education. Study participants were asked to determine their level of motivation for quality indicators based upon the National Quality Program Standards for Agriculture, Food, and Natural Resource (AFNR) Education produced by the National Council for Agricultural Education. This descriptive and correlational study produced data that was analyzed and reported using frequencies, percentages, means, standard deviations, t-tests, and ANOVAs. The findings, conclusions, and resulting recommendations focused on the themes of the total program, experiential learning settings and evaluation, student leadership and the FFA, working in the community with key stakeholders, advisory committees, marketing of program, and instructing students in AFNR careers. Initial findings reported the highest motivator for each National Quality Program Standard along with an overall ranking of the standards. The highest ranked standard was standard 3 leadership through FFA, and the lowest ranked standard was standard 5, marketing. Additional findings, conclusions, and resulting recommendations were also presented based on correlational results focusing on significant differences determined for personal and program characteristics based on gender, teacher age, number of teachers per program, and number of students per course.

Recommendations were made from data results based on practice, teacher preparation, and future research.

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For all who have the will and ability to learn. - Land Grant Act

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List of Abbreviations

AFNR	Agriculture, Forestry, and Natural Resources
CDE	Career Development Event
FFA	National FFA Organization
SAE	Supervised Agricultural Experience
NAAE	National Association of Agriculture Educators
POA	Program of Activities
UGA	University of Georgia
GVATA	Georgia Vocational Agricultural Teachers Association
FVSU	Fort Valley State University

CHAPTER 1: INTRODUCTION

Background and Setting

Each new school year, new beginning agriculture teachers enter the classroom. Some may have recently graduated from their traditional preparatory post-secondary programs and some may be entering the profession via an alternative path, possibly through industry with a degree in a field outside of agriculture education. Either way these beginning teachers have been hired to accomplish the same task; run a successful agriculture education program. As a beginning teacher, this can be a daunting task and overwhelming at times. Sometimes this first year can be viewed as a year of survival. New teachers will experience failures, successes, good days, bad days, and some mediocre days in their classrooms and programs. They will hopefully laugh more than cry and at the end of each day and truly know in their heart why they have chosen the job of an agriculture teacher.

Today, nationally, "there are approximately 1,000,000 agriculture education students in the nation who are taught by nearly 12,000 secondary and two-year post-secondary teachers" (National Association of Agricultural Educators, 2017, para. 1). According to the National Association of Agricultural Educators (2016), 797.5 agriculture positions were needed to be filled due to 175 new positions, 149 new programs, 201 retirements, and 721 left teaching (p. 1).

> Currently there is a national shortage of agricultural educators at the secondary level. It is estimated that there will be hundreds of unfilled positions across the United States this year, simply because not enough students are choosing to be agricultural educators (National Association of Agricultural Educators, 2017).

The question then becomes- why are students not choosing a career in agriculture education? The agriculture program is unlike any other in school class. The agriculture program applies the total agriculture education program model which includes classroom/laboratory instruction, guidance in the Supervised Agricultural Experience Program, and running of an FFA program. These duties lead to a never ending to do list and never a spare moment. No day is ever the same for an agriculture educator. To accomplish these duties, agriculture educators are often on extended contracts to work additional time after school and even summer hours to get their work completed (National Association of Agriculture Educators, 2017). According to Lemons, Brashears, Burris, Meyers, and Price (2015), this long list of responsibilities and duties can have a toll on an agriculture educator and other aspects of their lives and can contribute to them deciding to leave the profession. With the long list of daily jobs comes additional stressors. These job stressors also combine with home and family duties to become overwhelming at times. In King, Rucker, and Duncan (2015), they evaluated on the job duties in relation to female agriculture teachers and they found that high stressors consisted in several areas of the total program. High stressors in curriculum included creating new curriculum, lack of teaching resources, and learning to teach new content. Job stressors related to FFA/SAE included banquets, proficiency applications, and degree applications. Additional high stressors included, completing proficiency applications, taking care of daily paperwork/reports, and preparing degrees.

In a study by Hainline, Ulmer, Ritz, Burris, and Gibson (2015), it was determined that Texas agriculture educators spend an average of 58.65 hours per week on their job duties leaving only limited time to accomplish personal duties. Teaching agriculture education is not a job for the faint of heart.

To fill these teaching vacancies and reduce the amount of turnover rate, the agriculture education supervisors must find out what sets those apart that remain in the profession. Upon graduation and completion of a teacher preparatory program in agriculture education, a student should be able to hit the ground running to have a successful first year. Following that first-year, supervisors hope their recent graduates continue to enjoy teaching agriculture education. Through the focus on the total program and quantity of time agriculture teachers invest in their students they truly have one of the best jobs; being able to impact a student's life forever. This study looks to assess current beginning agriculture educators' perspective of what makes their job fulfilling for them and determining the motivations behind what tasks as an agricultural educator helps them to enjoy their job in this profession. Being able to understand what motivates new teachers to have a job in this profession and identify the experiences and practices deemed valuable in their job can be further examined and built upon to help prepare our future agriculture educators and encourage them to remain in the profession.

Statement of the Problem

The National Strategic Plan and Action Agenda for Agricultural Education Reinventing Agricultural Education for the Year 2020 presented in 2000 first goal was to ensure "an abundance of highly motivated, well-educated teachers in all disciplines, pre-kindergarten through adult, providing agriculture, food, fiber and natural resources systems education" (The National Council for Agricultural Education, 2000, p. 4). This goal will soon be evaluated as the year 2020 is fast approaching. Since this time, the need for agriculture educators remains with 769.5 open agriculture teaching positions in 2016 with 492 of these teachers leaving the profession for other opportunities (National Association of Agriculture Educators, 2016). Lemons, Brashears, Burris, Meyers, and Price (2015) interviewed nine agriculture educators

leaving the profession to determine the factors leading to their leaving. Overall themes that arose from this qualitative study included 1) passions for the profession, 2) alternative opportunities, 3) expectations, 4) burdens, retrospectively and 5) people (Lemons et al, 2015). Kelsey (2006) studied the attrition rate and reasons among female agriculture educators. This study found that "reasons for attrition included a lack of commitment to teaching AGED, being place-bound, and gender bias from school administrators" (Kelsey, 2006, p. 117). These are two examples of one group of research that has taken the negative connotation to answer the question why agriculture educators leave the profession. Boone wrote "it stands to reason that one way to increase the number of teachers in the profession is to reduce the number of teachers lost due to attrition" (Boone, 2010, p. 2). To accomplish this task research has begun to investigate the positives of the profession focusing on self-efficacy of agriculture educators. These emerging studies looked into every self-efficacy angle to determine a teacher's reason for remaining in agriculture education including personal and programmatic variables, tools and equipment, school culture, coursework, work life balance, and much more (Blackburn, Bunch, & Haynes, 2017; Hasselquist, Herndon, & Kitchel, 2017; McCubbins, Wells, Anderson, & Paulsen, 2017; McKim & Velez, 2017; McKim, Velez, & Clement, 2017; Swan, Wolf, & Cano, 2011; Wolf, 2011).

Utilizing this "new view" of research viewing the positive aspects of the job of an agriculture educator rather than the negative can be hugely beneficial to the profession. If agriculture education supervisors can help identify what makes agriculture educators want to be a part of and remain in the profession we can accomplish what Boone (2010) mentioned of "reducing the number of teachers lost due to attrition" (p. 2). Those in agriculture education understand the daily tasks and hats an agriculture teacher wears. To understand what brings joy and motivation to these teachers in the daily trenches of the agriculture programs we must

determine what tasks motivate them to be in this valued profession. Applying process motivational theory agriculture education supervisors can determine what external factors motivate current beginning agriculture teachers internally to enter the profession and hopefully increase their chances to remain. The four main process theories are reinforcement, expectancy, equity, and goal setting (Stotz & Bolger, 2017). Due to the nature of the job of an agriculture educator, involving numerous daily tasks and roles, these daily teacher tasks require motivation from the teacher to complete. Tasks producing low motivation in an agriculture educator, could be a potential factor for leaving the profession due to decreased motivation in job related responsibilities. Tasks producing higher motivation in an agriculture educator, could be a potential factor for the teacher to remain in the profession. Being able to determine these external driving factors in tasks related to the agriculture education profession will help to determine whether a current agriculture teacher may remain in the profession as well as determine the tasks these teachers view as motivators for the profession to capitalize on in recruitment and creating preparation programs. This information may play a role in the preparation process and mentor programs for upcoming agriculture educators. These educators have chosen to be a part of the agriculture education for a reason and their insight is invaluable and must not be overlooked.

Purpose of the Study

The purpose of this study was to determine the motivations of beginning agricultural education teachers in Georgia. The study documents their motivation for teaching agriculture by assessing their motivation for completing skills and activities expected in the role of an agriculture teacher. Specific objectives of the study were (see below):

- Describe personal characteristics and program demographics of beginning Georgia agriculture educators.
- Determine beginning teachers perceived level of motivation for each National Program Quality Program Standard and quality indicator.
- Identify teachers perceived motivation level for teaching based upon overall ranking of seven National Quality Program Standards.
- Identify any additional teaching activities associated with teaching agriculture that motivates teachers to remain in the profession.

The research objectives associated with this study were:

1. Describe personal characteristics and program demographics of beginning Georgia agriculture educators.
2. Describe the level of motivation for each National Program Quality Program Standard and quality indicator for beginning Georgia agriculture educators.
3. Determine the motivation level for teaching agriculture based upon overall ranking of seven National Quality Program Standards.
4. Highlight any additional teaching activities associated with teaching agriculture that encourage teachers to remain in the profession.

Scope of the Study

This study included a population of 45 Georgia agriculture educators with under one-year teaching experience in agriculture education. Study participants were asked to complete an electronic survey sent via Qualtrics. Introductory and survey specific emails were sent via email to inform teacher of the survey and asked for participation in survey. Multiple attempts were made to receive responses from teachers. Attempts included resending a reminder email with

survey link to participants which was followed by a friendly phone call reminder. Final data collection was completed using face to face interaction at the state agriculture education teacher's conference new teacher's meeting. At this meeting, participants were presented with survey instrument and asked to voluntarily participate.

Assumptions

The following assumptions were made for this study:

1. The agriculture teachers surveyed were selected to participate in this study by state Agriculture Education after being identified as a new teacher and all have less than one year of classroom agriculture education teaching experience.
2. Teachers all have some sort of motivation that drives them to teach agriculture.
3. The National Quality Standards for Agriculture represent the activities that a successful agriculture program should be meeting.
4. The National Quality Indicators represent an overall sampling of activities (not an exhaustive list) within each given standard area.

Delimitations of the Study

This research looks to focus at assessing the activities that motivate beginning Georgia agriculture education teachers to remain in the profession this far in their career. This study is not an attempt to provide a magic formula for all new teachers to survive in agriculture education. Also, some educators may have external motivators other than those related to professional standards used. The data was allowed to speak for itself and the researcher did not incorporate personal opinions into study.

Limitations of the Study

Most research into teacher retention has looked at the negative aspects of the job. This study looks to turn the focus to the positive aspects that motivates beginning teachers to remain in the profession. Limitations exist when working with classroom teachers; the greatest one is time. In an event to evaluate beginning, busy working teachers' job motivators, a survey instrument was created based upon the National Quality Program Standards for Agriculture, Food, and Natural Resource Education to fit a completion time of fifteen minutes by participants. The survey highlights agriculture teaching tasks by the National Quality Standards and is not an exhaustive list of duties.

This study also is geared to assessing beginning Georgia agriculture educators only. Just as the landscape for agriculture changes across our nation so does our agriculture programs and teachers' views. The study also assessed a teacher's viewpoints during a specific time in their career; their views could change over time and through experiences.

Significance of the Study

The results of this study will show the areas for improvement or cut back for college preparatory programs in agriculture education for the state of Georgia. These results will help university supervisors tailor their curriculum and course time allotment to the various areas of instruction for pre-service agriculture teachers. It will also allow university supervisors, state staff, and agriculture educators in Georgia to see a fresh look at what is deemed important to beginning Georgia teachers. This in turn could help guide state staff in providing professional development to current educators in popular areas. By improving our college preparatory programs and producing more highly prepared agriculture educators, Georgia teacher turnover and attrition rate will hopefully become reduced. Also, all teachers will feel better prepared to

meet their daily demands and classroom duties through improved professional learning opportunities.

Another area of interest for university supervisors and state staff would be having the ability to see what motivates and is of highest value to beginning teachers. Being able to identify this quality can help both entities in recruitment and development of agriculture educators. Also, the researcher is hopeful that the positive aspect of this project takes effect into the agricultural education profession. Georgia agriculture teachers are a community of educators and being conscious to highlight the positives of the profession will potentially encourage fellow agriculture teachers to do the same.

Operational Definitions

Agricultural education- "A systematic program of instruction available to students desiring to learn about the science business, technology of plant and animal production, and/or about the environmental and natural resource systems" (National FFA Organization, 2015).

Agriculture education supervisor- a post-secondary teacher that is involved in the agriculture education teacher preparation process and serves as a supervisor of process.

Total Program- three interrelated components of the agricultural education program; includes classroom instruction, SAE, and FFA (Georgia Agricultural Education, 2017).

National FFA Organization (FFA)- intra-curricular student organization for those interested in agriculture and leadership; one of the three components of the agricultural education (National FFA Organization, 2015).

Career Development Event- competitive events within the FFA that allows students to compete as individuals or teams to apply content knowledge learned in class and gain skills for use in future jobs (National FFA, 2015).

Supervised Agricultural Experience- a required part of the total agricultural education program in which every student completes a hands-on project outside of the regular classroom to apply concepts learned in class and gain skills and knowledge for their future careers (National FFA Organization, 2015).

Beginning agriculture educator- a part time or full-time agriculture educator in Georgia with less than one-year teaching experience in the content area of agriculture education

National Association for Agricultural Educators (NAAE)- A federation of state agricultural educator's associations with more than 7,800 members that focuses on advocacy for agricultural education (National Association of Agricultural Educators, 2015).

National Quality Program Standards for Agriculture, Food, and Natural Resource Education- a set of standards to be used as a tool for local agricultural education programs to use to analyze their program and develop clear goals and objectives for program growth (National Council for Agricultural Education, 2016, p. 3).

National Council for Agricultural Education- council that supports school-based agricultural education by providing opportunities and resources, collaborating for agricultural education, and promoting students (National Council for Agricultural Education, 2012).

CHAPTER 2: REVIEW OF LITERATURE

Introduction

The literature review provided a summary of existing research and information to create an understanding of the historical development of teacher preparation programs, theories of motivation, and the current research in agriculture education motivation studies.

Development of Teacher Education in Georgia

The first formal agricultural education teaching in the United States began in 1733. Through the passing of the Morrill Act in 1862 also known as the Land-Grant Act, federal support for agricultural education continued to grow and laid the foundation for this program area. This act first introduced in 1857 by Justin Morrill wished to establish "colleges for the benefit of agriculture and mechanical arts" (Herren & Hillison, 1996, p.28). The final version of this bill gave 30,000 acres of public land for each member of Congress to use for their state's' college (Library of Congress, 2017). The Nelson Amendments were added to the Morrill Act in March 1907 to allow federal funds to be used by colleges of agriculture to prepare teachers to teach in the fields of agriculture and mechanical arts (Herren & Hillison, 1996). Later, the Smith Hughes Act of 1917 helped to further define the roles of agricultural education in our nation and helped to provide even further teacher preparation (Torres and Garton, 1991). This act granted federal funding for vocational agriculture courses in public high schools and with this action grew the need for more agriculture teachers across the nation. The need for more agriculture teachers required the need for post-secondary institutions to prepare and produce these educators for the classroom. To meet this need, states already having public universities added a new

agricultural and mechanical arts college (Kerr, 1987). In 1862, a total of 59 land grant institutions were developed (Committee on the Future of the College of Agriculture in the Land Grant System, National Research Council, 1995). The two colleges created in Georgia through these efforts included The University of Georgia (UGA) and Fort Valley State College (FVSU).

The University of Georgia was established and opened in 1801. The college accepted funding from the First Morrill Act and received 270,000 acres in December of 1866. The College of Agriculture and Mechanic Arts was provisionally created as part of the university in 1872. Additional funding for the college came in 1890 from the Second Morrill Act. The beginnings for Fort Valley State College began in 1874 when the legislature named Atlanta University to receive part of the 1862 land-grant endowment for higher education of African Americans. After accepting the Second Morrill Act in 1890, the Georgia State Industrial College opened in Athens in 1891 and then later moved to Savannah. In 1949, The Georgia General Assembly transferred the land-grant funding to Fort Valley State College and in 1941 the first four-year college class graduated (Brunner, 1962).

At the University of Georgia, organized instruction for prospective teachers began in 1903 with the University Summer School. This course was offered in 1903 and 1904 to provide courses to prepare teachers to teach elementary agriculture in common schools, public schools created to teach students knowledge and skills to be productive citizens. The course curriculum focused on the land, plants, agronomy, dairying, horticulture, and economic entomology (Wheeler, 1948). At Fort Valley, a teacher training program began in the fall of 1942 (Wheeler, 1948).

From these early short courses came the actual development of an agriculture education program. J.T. Wheeler, R.D. Maltby, and L.M. Sheffer in 1917 met in a small room on the upper

floor of the Conner Hall at the College of Agriculture on the University of Georgia campus. These gentlemen helped to lay the early foundation for the organization of a teacher preparatory program and wished to focus upon the following principles:

1. Methods of teaching used in technical courses in college should reflect the methods teachers should use in high school classes. This principle recognized the fact that "teachers tend to teach as they are taught (Wheeler, 1948).
2. The making of state plans and the development of local programs of agriculture should rest on state and local facts about farming and farm people (Wheeler, 1948).
3. The apprenticeship principles "learning to teach by teaching" should be a part of the teacher training program (Wheeler, 1948, p. 294).
4. The supervised practice requirement of the Smith-Hughes Act should largely determine methods of course organization and teaching in the public schools. (Wheeler, 1948).

In the fall of 1918, funding was provided to construct a vocational building in Clarke County to house the high school courses of agriculture and homemaking. Similar centers also emerged in Bogart and Watkinsville. These vocational centers allowed the schools to receive benefits from the university funding and allowed teachers in training an observation school to work in.

Once a student had completed their technical instruction and completed any additional special methods courses, the training teachers were sent to complete at least three months of practice teaching at an approved location and under a trained supervising teacher. The students were sent back to the district school in the area in which they came from. While in their

apprentice work, training teachers were to work in the field and work alongside at least two farm families. Professors from the University would make technical check-ups, which allowed them to see the problems of teachers in agriculture face to face. Following completion of the apprenticeship and graduation, these teachers entered their own classroom. The preparatory teacher program continued to follow their graduates during their first year of service. These teacher trainers would make half a day visits to their first-year teachers and provide them with materials for teaching units including printed hand-outs and posters (Wheeler, 1948). This was the very beginnings of teacher preparatory programs in Georgia

Agriculture Education in Georgia Today

The agriculture classroom and students in the first agriculture classrooms in 1917 vary from the students in the classroom today. In 1917, the students who entered an agriculture classroom were farm boys and already possessed an interest along with working knowledge of concepts being discussed. Because of this reason teachers "needed a knowledge of technical agriculture, instruction on how to develop programs that would deliver that technical knowledge, and instruction on how to effectively teach it" to produce young men to return to farming (Kahler, 1996, p.1). Today's agriculture student is largely different; farm boys are rare, variety of ethnic groups, male and female, unique home situations, and removed from the farm completely. According the National FFA Organization (2015), "there are 649,355 FFA members, aged 12-21, in 7,859 chapters in all 50 states, Puerto Rico and the U.S. Virgin Islands." These factors require college preparatory programs to change with the times and meet the demands of today's agriculture classroom.

Within the state of Georgia, total high school agriculture education enrollment is 37,457 students and middle school enrollment is 30,798 students. The state is divided into three

regions: north, central, and south regions. Statewide, Georgia has 214 high school programs and 96 middle school programs (Georgia Agricultural Education, 2016). These programs are run by 445 agricultural educators. These educators received training through a traditional university program or entered the field via alternative certification, whether industry or alternative teaching certification means. When considering the traditional college preparatory program in Georgia two universities currently offer a bachelor's degree certification in this field; the University of Georgia and Fort Valley State University. A major component of the preparation process for agricultural educators involves instruction in agriculture-based courses along with education courses.

A culminating experience for the agricultural education degree at the University of Georgia is the 12-hour student teaching experience. The student teaching in agricultural education includes "students spending fifty days in public school agricultural education centers, under the direction of specially-trained cooperating teachers and University supervisors/faculty members" (Office of the Vice President for Instruction, 2017). The Fort Valley State agricultural education program requires student to also complete a twelve-hour directed teaching experience to complete their senior year (C. Borne, personal communication, June 26, 2017).

Motivational Theories

Whether a beginning teacher entered the agriculture teaching profession via a traditional or alternative certification method through one of Georgia's teacher preparation programs they have chosen this field for some reason. Something motivated them along their path to decide upon this career and that makes them get up to go to work each day. To help determine this "something" we must investigate their motivation. The English Oxford Living Dictionary (2017) defines motivation as the "desire or willingness to do something; enthusiasm." To further

understand how this willingness and desire is created we must review the components and theories of motivation.

Most definitions on motivation entail the combination of three qualities: a presumed internal force, something that energizes for action, and it determines the direction of action (Russell, 1971). According to Duttweiler's work cited in Pardee (1990) "motivators are the factors that arouse, direct, and sustain increased performance" (p.4).

Two major theories exist in the areas of motivation. These two theories are content and process theories. According to Stotz and Bolger (2017), content theories focus on what inside a person makes them behave in a certain way. Process theories look at the external factors and look to see how behavior or motivation is created within an individual (Stotz & Bolger, 2017).

Major theorists of content theories include Abraham Maslow, Clayton P. Alderfer, Federick Herzberg, and David C. McClelland. "Abraham Maslow believed that man is inherently good and argued that individuals possess a constantly growing inner drive that has great potential" (Pardee, 1990, p. 8). Maslow's theory focuses on a hierarchical order of needs. He stated that "people are motivated by unmet needs which are in a hierarchical order that prevents us from being motivated by a need area unless all lower level needs have been met" (Pardee, 1990, p. 3). The five general levels of needs are: physiological, safety, social, ego, and self-actualization (Pardee, 1990).

Aldferfer's theory focused upon three categories of need: existence, relatedness, and growth. Existence included those desires needed for human survival, relatedness needs included interpersonal interactions, and growth needs dealt with interactions with environment (Kanfer, 1990). These three states operate at one time.

Herzberg's theory focused more on the industrial, business setting and stated that motivations were important to the accomplishment of work (Pardee, 1990). Herzberg states "that satisfaction and dissatisfaction are not on the same continuum and are therefore not opposites" and that "motivational factors can cause satisfaction or no satisfaction" (Pardee, 1990, p. 3). He also believed that three primary psychological states that could affect work satisfaction are: "experienced meaningfulness of the work itself, experienced responsibly for the work and its outcomes, and knowledge of results, or performance feedback" (Pardee, 1990, p. 10). Job satisfaction factors are mostly intrinsic and job dissatisfaction factors are mostly extrinsic (Pardee, 1990).

McClelland's theory related to learning concepts. "The theory proposes that when a need is strong in a person, its effect is to motivate the person to use behavior which leads to satisfaction of the need" (Pardee, 1990, p. 11). These "needs are learned through copping with one's environment" (Pardee, 1990, p. 11). Through the mastery of these tasks one can increase their self-esteem (Pardee, 1990).

The four main process theories are reinforcement, expectancy, equity, and goal setting. "Reinforcement and goal setting theories have been supported by research studies and are viewed as the most helpful in application" (Stotz & Bolger, 2017, p. 1.16). B.F. Skinner was a theorist of the reinforcement theory and focused upon the fact that behavior is connected to consequences (Stotz & Bolger, 2017). Because these consequences are referred to as "operant" this theory is known as "operant conditioning." Principles involved in operant conditioning include: positive reinforcement, negative reinforcement, punishment, and extinction (Stotz & Bolger, 2017, p.1.18). By using these operants, a person's behavior can become modified or change. Skinner's theory has a role in the workplace, but some believe that these operants can

be used and seen as bribery and can begin to corrupt the workplace. The goal is to get people to respond to operants without making them reliable upon them for a behavior change (Stotz & Bolger, 2017).

"The Expectancy Model looks at how likely it is that the performance and outcome will occur" based upon voluntary choices of the individual (Stotz & Bolger, 2017, p.1.19). In the application of this theory, an individual makes their choices based upon: "whether the job can be accomplished, whether the outcome will occur as result of performing, and whether the outcome will be desirable" (Stotz & Bolger, 2017, p.1.19).

"Equity theory assumes that employees compare their effort and rewards with those of others in similar work situations" (Stotz & Bolger, 2017, p. 1.20). The basis of this theory is that everyone wishes to be treated equal. People within a setting will compare to see if their effort and rewards matched that of others around them. If rewards are equal then the person sees treatment as fair and feels motivated (Stotz & Bolger, 2017).

The Goal Setting theory, by J. Stacey Adams, involves reward system creators including participants' feedback as to what is fair in a reward system (Stotz & Bolger, 2017). By allowing people to set their own challenging goals, they will work harder and be more motivated to complete (Stotz & Bolger, 2017). Creators must be careful to ensure that goals are attainable; if participants feel that task is too difficult a person will reduce his/her effort. These theories help to better understand what motivates people within their areas of work. According to Lindner (1998), motivated employees are needed in our rapidly changing workplaces, to help organizations survive, and are more productive.

Current Motivation and Beginning Teacher Research in Agricultural Education

When applying these motivation theories and concepts directly into the agriculture education world some current research can be found on this topic. The following is a review of current motivational research in the field of agricultural education.

Being able to communicate effectively is important in the education and business world. According to Fisher and Meyers (2017), the ability to communicate in the written form is a fear and challenge that college graduates struggle with. "Writing apprehension has been described as one of the main factors hindering students' motivation to write and confidence to complete writing responsibilities" (Fisher & Meyers, 2017). Through their study using the self-efficacy theory, they wanted to see how students having to complete an intensive writing course helped to improve the student's confidence and belief in themselves as writers. The study found that by tackling the process of writing in an intensive writing course like the one Fisher and Meyers used helped to lessen undergraduate students' fear of writing and resulting in an overall increase in their desire to write (Fisher & Myers, 2017).

Knoblock, Brady, Orvis, and Carroll (2016) used motivational theories to determine what motivated students to participate in career development events (CDE) while in the FFA. They based their theory upon expectancy-value motivation and focused upon twelve career development events in various topic areas at the state level. Sixty percent of variance in youth motivation was based upon self-efficacy, cost and utility value, intrinsic value, and attainment (Knoblock, Brady, Orvis, & Carroll, 2016). The greatest motivator was cost and utility value; meaning that students felt through participation in events they would reap benefits to help them reach their goals (Knoblock, Brady, Orvis, & Carroll, 2016). This information can help teachers in their preparation of students for these events.

Ball, Bowling, and Bird (2016) also completed a study to examine the motivational strategies teachers used to prepare their students for state competitive events from programs having outstanding records in multiple state and national career development events. Using an interview process, students were interviewed multiple times during a 16-week period. The data found that teachers used a variety of motivational strategies including extrinsic and intrinsic. By utilizing these types of motivational strategies teachers could use coaching and learning strategies to develop their students' competitive drive and ability to want to learn their event's content (Ball, Bowling, & Bird, 2016).

Roberts, Terry, Brown, and Ramsey (2016) looked to determine student motivation for completing a service learning activity through the National FFA Days of Service. They wanted to determine an FFA members' level of intrinsic motivation after participating in a service learning project. For this study, they utilized the Deci and Ryan's Self Determination (SDT) to understand the member's motivation based upon three constructs: interest, value, and perceived choice (Roberts, Terry, Brown, & Ramsey, 2016). The results found that students valued and were interested in their experience but had varied reasons for participating. In summary, it was recommended that the Intrinsic Service Learning Model be applied to deliver intrinsically motivate service learning experience for agriculture education students (Roberts et al., 2016).

Chumbley, Haynes, and Stofer (2015) looked to determine a student's motivation to learn agriscience for application in science, technology, engineering, and mathematics (STEM) curriculum. A modified version of the Science Motivation Questionnaire II (SMQ II) was used as the survey instrument. Results found that students had a moderate level of motivation in agrisceince courses. The motivational constructs that meant the most to the students were grade motivation and self-efficacy (Chumbley et al., 2015).

Murphrey, Lane, Harlin, and Cherry (2016) wished to investigate pre-service agricultural science teachers' perspectives and motivation participation in international agricultural experiences. The theory of planned behavior and motivation were utilized. The study found that only 39% of study participants had a desire to participate in an international experience. Motivation for participating in an international experience included increasing their knowledge of their academic specialization and incorporation of hands-on activities within experience (Murphrey et al., 2016).

Lamm, Carter, and Melendez (2014) studied the intrinsic motivation that led agricultural leadership student project teams to an increased feeling of team satisfaction. The study found that students possess a high level of intrinsic motivation for projects they select to work on with their team. These findings can be applied by educators to help prepare their students for their potential job setting and working in a team setting (Lamm, Carter, & Melendez, 2014).

Anderson (2013) used a descriptive correlational study to determine the motivational profile, or personal factors, that affect self-determination of a set of freshmen enrolled in an urban agriculture program. The theoretical framework was based upon the organismic integration theory, a sub theory of Deci and Ryan's self-determination theory (SDT) (Anderson, 2013). The SDT theory aims to study human motivation by intrinsic and extrinsic factors. Findings of study revealed that personal factors did affect the self-determination of the urban students who choose to enroll in the urban agriculture program. Students who wished to enroll in course also showed an impact on their motivation to attend program (Anderson, 2013). Also, no one type of profile was found for students that reported to participate in the agriculture program (Anderson, 2013). Lastly, "the type of motivation to attend the program correlates with the level of perceived effort by the student on academic tasks related to agriculture" (Anderson,

2013). It appears that having students choose to be in agriculture class has a ripple effect into their success and motivation for class.

Utilizing the Supervised Agricultural Experience (SAE), Bird, Martin, and Simonsen (2013), wanted to examine the motivation for completing this project using the self-determination theory (STD). Using historical documents such as magazines, documents, and books for SAE cases they reviewed SAE programs completed by students and further broke them down into three-time periods: 1928-1934, 1947-1953, and 1966-1973 (Bird, Martin, & Simonsen, 2013). Overall, student participation in SAE projects has been driven mostly by external factor more than internal factors (Bird, Martin, & Simonsen, 2013).

Miller (1992) investigated the motivation of participants involved in an off-campus program. Using the Education Participation Scale (EPS), participant's motivation was assessed. The highest motivator for enrollment was "cognitive interest" (Miller, 1992, p. 8). Other areas of interest were that agricultural based students were more motivated by "professional advancement" (Miller, 1992, p. 8).

Turner and Herren (1997) looked to examine the motivational needs of students enrolled in agricultural education classes in Georgia. The motivational theory used was McClelland's theory, which is based upon three motivational needs: the need for achievement, the need for affiliation, and the need for power (Turner & Herren, 1997). Results found that agricultural students were motivated by the need for achievement over non-FFA members (Turner & Herren, 1997). Rohs and Anderson (2001) also examined the motivational needs of middle grade students enrolled in agricultural education in Georgia. The theory utilized was McClelland's motivational needs theory. Their study found that agricultural students had a higher need for achievement overall and no differences existed between FFA and non-FFA members (Rohs &

Anderson, 2001). Genders did reveal differences; females had a higher need for affiliation and power than males. (Rohs & Anderson, 2001).

Dollisso and Martin (1999) focused upon the motivation of Young Farmers to participate in educational programs. It was found that participants were motivated to be a part of educational programs for economic reasons and that client involvement in program planning would increase program participation (Dollisso & Martin, 1999). Internal and external factors affect the motivation to learn. The overall preferred method for learning was hands-on and utilizing multiple approaches (Dollisso & Martin, 1999).

Bajema, Miller, and Williams (2002) determined the aspirations of rural youth upon graduation and their view of the support and barriers towards reaching these goals. The theory of achievement motivation was utilized in this study. The results found that most students had an educational and occupational goal and a support system to accomplish such (Bajema, Miller, & Williams, 2002). It was also found that students shared a similar job interest in health, management, and education (Bajema, Miller, & Williams, 2002).

Barbuto, Trout, and Brown (2004) used the meta-theory of motivation to describe and establish norms among farm cooperative employees and managers in Nebraska. The Motivation Sources Inventory (MSI) was administered that assessed the five sources of work motivation; intrinsic process, instrumental, self-concept external, self-concept internal, and goal internalization (Barbuto, Trout, & Brown, 2004). Self-concept internal motivation proved to be the highest motivation source in agricultural workers (Barbuto, Trout, & Brown, 2004).

Regarding beginning agriculture teacher's research, Edwards and Briers (2001) looked to determine the personal factors that influence how long these beginning teachers are expected to remain teaching. Edwards and Briers determined that entry-phase (beginning) agriculture

teachers have a stronger commitment to remain in the profession beyond years one through three. Some of the personal factors that have a high influence on beginning teacher retention include: gender, FFA involvement, and agricultural work experience (Edwards & Briers, 2001).

Hasselquist, Herndon, and Kitchel (2017) studied first and second year agriculture teacher's job satisfaction and self-efficacy via their perception of their school culture support. A major player in beginning teachers' efficacy was colleague support while district and school administration, colleague, and financial support were all significant job satisfaction components (Hasselquit, Herndon, & Kitchel, 2017).

Rice and Kitchel (2016) worked with beginning teachers to view their approaches to teaching content. Through an interview process of five beginning teachers, it was found that these beginning teacher's knowledge of content and students influenced their break down of content (Ricke & Kitchel, 2016).

Need for Research

Several studies exist regarding motivational research within the spectrum of agricultural education. A few studies exist considering the specific concepts of beginning agriculture teachers. However, the problem exists there is no current research combining these two factors; motivation and beginning teachers.

Motivation is defined as the "desire or willingness to do something; enthusiasm" (English Oxford Dictionary, 20117). Motivation has been a concept of research in a variety of agriculture programs. The current research focuses on motivation dealing with students and their participation in programs and activities. We must understand the motivation for our students and their desires, but we must also remember that they are just one part of the equation. To have a

successful classroom for everyone, we also need research to find out what motivates their teachers as well.

Another basis for this research is that all too often we see studies focusing on the negative context of teaching agriculture. We see studies focusing on the work load of teachers, stresses of the job, and reasons for leaving the profession (Hainline et al., 2015; King, Rucker, & Duncan, 2015; Lemons et al., 2015). Research must be completed to take a positive look at the profession of agriculture education. Instead of asking, "Why did you leave the profession" we need to start asking "Why did you enter this profession and what do you enjoy about it" in hopes to retain agriculture educators.

According to the National Association of Agricultural Educators (2017)

> Currently there is a national shortage of agricultural educators at the secondary level. It is estimated that there will be hundreds of unfilled positions across the United States this year, simply because not enough students are choosing to be agricultural educators.

Research in beginning teacher motivation can also help in the recruitment and development of pre-service teacher programs. By being able to highlight the highest motivating factors in the profession we can become better marketers of our own program. Also, pre-service teacher programs can capitalize on these aspects as well and work to build up and improve in the areas of least motivation. Sometimes these least motivating areas may be viewed that way out of fear of the unknown or no concept of how to accomplish that task. By focusing on these beginning teachers, we can also help them along their path as an educator in helping to provide staff development or maybe even a time for group talk between agriculture teachers. Just being able

to share ideas and thoughts with others and creating those colleagues' relationships can help new teachers not feel alone in their journey.

Summary

In summary, motivational theories have been applied in numerous facets of agricultural education with the focus being students. No research has been found that specifically addresses the motivations for beginning agriculture teachers in relation to their motivation for on job activities. Other research has validated the fact that it is important to know what motivates others in their pursuits, which in turn results in their satisfaction or dissatisfaction. Research indicates that by understanding what motivates individuals, programs can be utilized to incorporate these motivators into action or change our current programs to include more motivational concepts. Once these motivators haven been identified, in-service programs can be developed to provide training to further promote these "highlights" of our profession and pre-service programs can utilize them as well as marketing tools within their programs.

CHAPTER 3: METHODOLOGY

Purpose

The purpose of this descriptive correlational study was to measure the motivation for beginning Georgia agriculture teachers for teaching agriculture by assessing their motivation for completing skills and activities expected in the role of an agriculture teacher. This information would then be used to help guide the development and curriculum being taught in agriculture education preparatory programs in Georgia. Additional research topics would cover:

- Describe personal characteristics and program demographics of beginning Georgia agriculture educators.
- Determine beginning teachers perceived level of motivation for each National Quality Program Standard and quality indicator.
- Identify teachers perceived motivation level for teaching based upon overall ranking of seven National Quality Program Standards.
- Identify any additional teaching activities associated with teaching agriculture that motivates teachers to remain in the profession.

Research Design

The design for this research was descriptive and correlational. The views and understanding of why current beginning agriculture education teachers have entered the profession can help to shape our pre-service agriculture educator preparation programs if they are asked. To allow current agriculture educator's thoughts and opinions to be heard in the development and preparation of new and upcoming agriculture teachers, this study sampled

beginning Georgia agriculture educators by asking them to participate in a survey. A researcher administered electronic survey was chosen because of ease of use and feasibility to administer survey instrument. The research was collected from beginning Georgia Agriculture Educators across the state of Georgia in the fall of 2017 and January of 2018. Strengths of this practice included the ease of administering the survey along with easy accessibility to study participants. The Qualtrics programs allows the researcher to create a concise, easy to read instrument to be completed on the computer or cell phone application. Weaknesses include the length of the survey instrument and the fact that some survey items may not be applicable to all participants of the sample population.

Subject Selection

The population for this study included all Georgia beginning agriculture teachers (N=45). These beginning agriculture teachers were identified by the various state staff Area lead teachers. For this study, all beginning teachers were considered middle or high school agricultural educators with less than one full year teaching experience in the field of agricultural education.

Instrumentation

The survey instrument was modeled after a previous instrument created by Paulsen, Retallick, and Smalley (2015) in which teaching activities and skills were based upon constructs to assess the student teaching process. This original survey was updated to include constructs based upon the National Quality Program Standards (2016) seven standards including:

1. Program Design and Instruction
    A. Curriculum and program design
    B. Instruction
    C. Facilities and equipment

D. Assessment

2. Experiential, project, and work-based learning through SAE
3. Leadership and personal development through FFA
4. School and community partnerships
5. Marketing
6. Certified agriculture teachers and professional growth
7. Program planning and evaluation (p.5-6).

For each standard, a list of quality indicators level of performance was developed from the National Quality Program Standards for Agriculture, Food, and Natural Resource (AFNR) Education produced by the National Council for Agricultural Education. For each quality indicator, participants were asked to determine their degree of motivation for each specific activity or skill using a five-point summated scale (0- not a motivator, 1- somewhat not a motivator, 2-neither, 3-somewhat of a motivator, 4- strong motivator). The limits of the scale for interpretation: not a motivator 0=0-.5, somewhat not a motivator 1=.51-1.5, neither 2=1.51-2.5, somewhat of a motivator 3=2.51-3.5, and strong motivator 4=3.51-4.0.

Next, participants were asked to rank the seven National Quality Program Standards from one to seven, with one being their highest motivator on down. An open-ended question allowing participants to identify other additional motivators for them concluded the motivation portion of the instrument. The survey then concluded with personal and program demographic questions.

To ensure an effective survey instrument validity and reliability measures were taken. Validity looks at the meaningfulness of the research components to ensure they are measuring the behaviors the research is concerned with measuring (Drost, 2012, p. 114). Threats to validity were tested in a variety of ways. First, statistical validity was checked using covariance at a

specific alpha level and lack of homogeneity (Drost, 2012, p. 115). Alpha for all statistical test was set *a priori* at .05. Once a relationship was determined, focus was turned to the internal validity of the instrument. The instrument was evaluated for face and content validity by a panel of two Auburn University professors and three Georgia Agricultural Education teachers. Because of this evaluation, some design suggestions were recommended, and the content was found valid and appropriate for study. "External validity of a study or relationship implies generalizing to other persons, settings, and times" (Drost, 2012, p. 120). Being this study is using the new agriculture education teacher population for the 2017-2018 school year, the study results can only be generalized for this specific group of individuals and at this given time.

The reliability of instrument looks to evaluate the consistency of the measurement (Drost, 2012, p. 108). To accomplish this, beginning instructions were clearly written along with the summated scale scoring process explained. Through the review of the instrument by the panel, wording errors and confusing language were eliminated. Reliability was evaluated for this instrument following data collection. Cronbach's alpha was calculated for each construct to determine reliability. The results of each standard produced were as follows: standard 1 (r=.93), standard 2 (r=.99), standard 3 (r=.89), standard 4 (r=.91), standard 5 (r=.16), standard 6 (r=.86), and standard 7 (r=.84). Standard 5 produced a low Cronbach's alpha internal consistency rating. Solutions to this will be discussed in conclusions.

Data Collection Procedures

The population for this study included all beginning Georgia agricultural education teachers (N=45). Once the population was generated, participating teachers were sent an email one week (October 24, 2017) before survey link was sent, informing them of their selection and requesting their participation in the study. Participants were made aware that their participation

would remain anonymous and explained that participation was voluntary. Each participant was also informed that their participation in study would enter their name into a drawing for $50 cash. The research plan and survey instrument were approved by the Auburn University Review Board prior to dissemination of instrument.

Following one week after initial email (October 31, 2017), teachers received an emailed link to survey instrument with introductory instructions and a participation agreement. Teachers were allowed one week to respond and complete survey. After one week (November 7, 2017), all research participants were sent an additional email thanking those for their participation and reminding others to please take a moment to complete survey within one week. A third attempt (November 7, 2017) and fourth attempt (November 15, 2017) were made once again to encourage study participants to complete Qualtrics survey. On November 16, 2017, researcher attempted to make personal contact via a phone call with study participants to 1) determine if they had previously completed survey instrument and 2) encourage them to take a few minutes to complete survey at completion of phone call. Thirteen participants were reached. A final email was also sent on November 16th just to resend survey link after speaking with survey participants to encourage their survey completion once more. After multiple attempts utilizing the electronic survey, response level was at 15 completed surveys.

Due to the low response rate using online Qualtrics a "plan B" was formulated to hand deliver surveys to Georgia' new agriculture teachers during a face to face meeting at the Georgia Vocational Agriculture Teachers Association (GVATA) new teacher's meeting on Tuesday, January 16, 2018 at the Georgia FFA-FCCLA Camp in Covington, Georgia. At this meeting, the researcher visited with each teacher region, north, central, and south, and thanked the new teachers who had completed survey previously and asked for anyone who had not completed

survey to take a moment to complete. Following this event, researcher collected a total of 25 paper surveys; 5 from north region teachers, 16 from central region teachers, and 4 from south region teachers. Survey participants' participation was voluntary, and surveys remained anonymous.

Following the completion and turn in of surveys, participants (whether completed survey or not) were entered into a drawing for $50 cash by receiving a ticket. At the completion of all region meetings and collection of tickets, researcher drew one ticket to serve as winner of cash prize. Cash prize was presented to winner.

CHAPTER 4: FINDINGS

Purpose

The purpose of this chapter was to report the findings of the study following proper data analysis. The research purpose and objectives will be address based using the appropriate data source. SPSS was used for data analysis. The purpose was to report findings structured around the objectives of this study.

Objectives

Data reported will be grouped based upon the given research question it supports:

1. Describe participants by personal and program characteristics.
2. Describe participant's level of motivation for each National Quality Program Standard and quality indicator.
3. Determine participant's motivation level for teaching agriculture based upon overall ranking of seven National Quality Program Standards.
4. Compare participant's personal and program characteristics to their level of motivation for each National Quality Program Standard and quality indicator.
5. Highlight any additional teaching activities associated with teaching agriculture that encourages teachers to remain in the profession.

Data Analysis

Objective One: Describe participants by personal and program characteristics.

The personal and program characteristics of study participants is presented in Table 1. Overall, 40 Georgia beginning agricultural education teachers responded to the questionnaire. In relation to the sample size (*n*=45), this number or respondents produced a response rate of 88.9%. Female teachers comprised the largest gender group of participants (*f*=23, 57.50%). Male teachers respondents represented 40.00% (*f*=16). Respondents reported their age category with the highest being less than 25 (*f*=15, 37.50%). Age categories 26-30 reported *f*=4 (10.00%), 31-40 reported *f*=10 (25.00%), and the remaining category 41 and above reported *f*=10 (25.00%). Most respondents were found to teach in one teacher agriculture programs with *f*=31 (77.50%). The remainder reported teaching in programs with 2 to 4 teachers *f*=8 (20.00%). The overall size of schools based upon number of students attending were well represented across the study participants. School populations ranging from 1-499 reported *f*=8 (20.00%), 5008-899 reported *f*=11 (27.50%), 900-1099 reported *f*=9 (22.50%), and 1100 or more reported *f*=11 (27.50%). During an average school day, 52.50% (*f*=21) reported teaching 1 to 4 courses daily. The remainder (*f*=18, 45.00%) reported teaching 5 to 7 courses daily. The average class size among participants was 21 to 30 students (*f*=22, 55.00%). Other teachers reported teaching 11 to 20 students per class (*f*=11, %27.50) and 31 to 40 students per courses (*f*=7, 17.50%). Most respondents reported teaching high school grade levels (*f*=29, 72.50%) and the remainder teaching middle school grade levels (*f*=11, 27.50%). The education level of respondents was majority bachelor's degree with *f*=20 (50.00%) and the remaining above the bachelor's level with *f*=18 (45.00%). Most participants have entered the agriculture education field via another route other than a traditional undergraduate program with teacher certification (*f*=25, 62.50%). Those traditionally certified represented 32.50% (*f*=13). The majority of Georgia agriculture educators during this academic year are true beginning teachers with less than one-year teaching

Table 1

Personal Characteristics of Georgia Beginning Agricultural Education Teachers

Personal Characteristic		*f*	%
Gender[1]	Male	16	40.00
	Female	23	57.50
Age[1]	Less than 25	15	37.50
	26-30	4	10.00
	31-40	10	25.00
	41 and above	10	25.00
Number of Ag Teachers in School[1]	One teacher program	31	77.50
	2-4 teachers program	8	20.00
Total Number of Students in School[1]	1-499	8	20.00
	500-899	11	27.50
	900-1099	9	22.50
	1100 or more	11	27.50
Average Number of Courses Taught Per Day[1]	1-4 courses	21	52.50
	5-7 courses	18	45.00
Average Number of Students Per Course	11-20	11	27.50
	21-30	22	55.00
	31-40	7	17.50
Ag Education Grade Level[2]	Middle	11	27.50
	High	29	72.50
Education Level[2]	Bachelors	20	50.00
	Above Bachelors level	18	45.00
Teacher Preparation Format[2]	Undergraduate teacher certification	13	32.50
	Other preparation format- Graduate with teacher certification, Alternative teacher certification, or another avenue	25	62.50
Years Teaching Experience (Ag or another field)[2]	Less than 1 year	18	45.00
	1-10 years	11	27.50
	11 or more years	9	22.50

Note. [1]One participant response not recorded *n*=39
[2]Two participants responses not recorded *n*=38

experience (*f*=18, 45.00%). Eleven teachers reported having 1 to 10 years teaching experience (27.50%) and nine reported 11 or more years teaching experience (22.50%). This is the result of some teachers entering agriculture education from another content area in education. This being

the case, survey participants were asked their years teaching experience to determine if they have entered agriculture education from another area (i.e. math, science, etc.). Again, all teachers are new to the agriculture education content area.

Objective Two: Describe participant's level of motivation for each National Quality Program Standard and quality indicator.

Teachers were asked to determine their level of motivation for each National Quality Program Standard based upon the quality indicator. The quality standards were divided into seven sections; program design and instruction, experiential, project, and work-based learning through SAE, leadership and personal development through FFA, school and community partnerships, marketing, certified agriculture teachers and professional growth, and program planning and evaluation. Participants were asked to rate their level of motivation for each standard quality indicator based upon a five-point summated scale with a 0-rating meaning not a motivator and the highest rating of 4 meaning a strong motivator.

Table 2 reports participants' motivation level for the National Quality Program Standard 1 of program design and instruction. This standard is further divided into four content areas of curriculum and program design (standard 1A), instruction (standard 1B), facilities and equipment (standard 1C), and assessment (standard 1D). For standard 1A, curriculum and program design, the highest mean was "Develop a POS that balances the three components of the agriculture, food, and natural resource (AFNR) education (M=3.43, SD=.75). The next highest mean was "Balance technical content that is aligned with core academic content standards" (M=3.00, SD=.99). For standard 1B instruction, the two highest means were "Building a classroom and laboratory instruction that is supplemented by experiential learning" (M=3.70, SD=.46) and a tie between "Demonstrate an understanding that learning and development patterns vary among

students; each are unique" (*M*=3.45, *SD*=.64) and "Demonstrate a deep and flexible understanding of AFNR curriculum and can relate to students" (*M*=3.45, *SD*=.68). Standard 1C focuses on facilities and equipment. The highest means in this standard were "Maintaining a facility designed to be accessibly and accommodating to all students" (*M*=3.63, *SD*=.68) and "Manage a facility that is clean, organized, and maintained to provide an environment of learning" (*M*=3.55, *SD*=.68). Standard 1D focused on assessment and the two highest means in this quality standard were "Evaluating student growth continually as it relates to experiential learning" (*M*=3.44, *SD*=.68) and "Generating a program that demonstrates grading procedures that incorporate all 3 components of AFNR program" (*M*=3.33, *SD*=.73).

Grand means were reported for standard 1 program design and instruction based upon the compiled results from standard 1A, 1B, 1C, and 1D. As reported in Table 2, the grand mean for standard 1 A-D was 3.21 (*SD*=.50).

Table 2

Motivation Level of Beginning Agriculture Education Teachers for the National Quality Program Standard 1 Program Design and Instruction

Standard 1A Quality Indicators	*M*[1]	*SD*
Develop a POS that balances the three components of the agriculture, food, and natural resource (AFNR) education	3.43	.75
Balance technical content that is aligned with core academic content standards	3.00	.99
Producing a quality Program of Study (POS)	2.90	.90
Establishing courses in the POS in a logical and sequential manner	2.85	.95
Implement a POS that allows students to gain post-secondary education credits	2.75	1.08
Standard 1B Quality Indicators		
Building a classroom and laboratory instruction that is supplemented by experiential learning	3.70	.46
Demonstrate a deep and flexible understanding of AFNR curriculum and can relate to students	3.45	.68
Demonstrate an understanding that learning and development patterns		

vary among students; each are unique	3.45	.64
Design instruction that integrates the application of core academic standards	3.28	.82
Engage in meaningful and intensive professional learning and self-renewal in education	3.18	.78
Understand and integrate assessment, planning, and instructional strategies	2.88	.97
Standard 1C Quality Indicators		
Maintaining a facility designed to be accessibly and accommodating to all students	3.63	.59
Manage a facility that is clean, organized, and maintained to provide an environment for learning	3.55	.68
Ensure equipment, tools, and instructional technology are safe and maintained	3.38	.84
Being provided a quantity of tools, equipment, and supplies adequate for all students enrolled in the class	3.38	.74
Being provided a facility size and layout that provides for effective delivery of POS	3.35	.77
Providing training and evaluation so individuals using facility create a safe working environment	3.35	.77
Being provided equipment, tools, and instructional technology that is current, available, and used effectively for instruction	3.35	.83
Monitor an inventory of equipment, tools, instructional technology	3.30	.85
Maintain storage space for materials, supplies, and equipment	3.28	.88
Ensuring that facility follows safety and health standards	2.95	.96
Standard 1D Quality Indicators		
Evaluating student growth continually as it relates to experiential learning	3.44	.68
Generating a program that demonstrates grading procedures that incorporate all 3 components of AFNR program	3.33	.73
Reviewing student documents to measure their knowledge and skill attainment	3.10	.74
Produce technical performance that is evaluated through authentic assessments relevant to POS	3.03	.83
Produce academic performance that is evaluated through assessments relevant to POS	3.03	.80
Standard 1 Total Summary		
Standard 1A, 1B, 1C, and 1D	3.21	.50

Note. [1]Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 3 reports participants' motivation level for the National Quality Program Standard 2 experiential, project, and work-based learning through Supervised Agricultural Experience (SAE). The highest means based upon quality indicators were "Meeting local and state expectations for providing direct supervision of and guidance for each student's SAE" (*M*=3.30, *SD*=.72) and "Molding SAE programs that are student-planned and based on their Career Plan of Study" (*M*=3.28, *SD*=.78).

Table 3

Motivation Level of Beginning Agriculture Education Teachers for the National Quality Program Standard 2 Experiential, Project, and Work-Based Learning Through SAE

Standard 2 Quality Indicators	*M*[1]	*SD*
Meeting local and state expectations for providing direct supervision of and guidance for each student's SAE	3.30	.72
Molding SAE programs that are student-planned and based on their Career Plan of Study	3.28	.78
Producing SAE programs aligned to AFNR pathways and curriculum standards	3.20	.65
Creating SAE documentation for students to maintain accurate records to meet state and local requirements	3.18	.78
Generating SAE program documents and agreements to be shared between the student and adult supervisor	3.13	.72
Construct SAE programs assessed by measuring student growth against a relevant set of career-based skills and competencies	3.10	.74
Engineering an Exploratory SAE and Career Plan of Study for all students	3.00	.83

Note. [1]Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 4 reports participants' motivation level for the National Quality Program Standard 3 leadership and personal development through FFA. The highest means based upon quality indicators were "Arranging for all students enrolled in the AFNR program to have the opportunity to be a member of the FFA" (*M*=3.77, *SD*=.43) and "Creating opportunities for all students to participate in meaningful leadership and personal development activities in each component of the AFNR education" (*M*=3.74, *SD*=.44).

Table 4

Motivation Level of Beginning Agriculture Education Teachers for the National Quality Program Standard 3 Leadership and Personal Development Through FFA

Standard 3 Quality Indicators	*M*[1]	*SD*
Arranging for all students enrolled in the AFNR program to have the opportunity to be a member of the FFA	3.77	.43
Helping students build a progressive and personal development plan	3.56	.60
Creating opportunities for all students to participate in meaningful leadership and personal development activities in each component of the AFNR education	3.74	.44
Ensure the FFA Chapter constitution and bylaws are up to date and approved by chapter members	3.15	.90
Guide and involve FFA members in the planning and implementation of a Program of Activities (POA)	3.31	1.00
Supervising regularly scheduled FFA chapter meetings	3.49	.85
Develop an awards recognition program planned and conducted by FFA members	3.41	.91
Develop an FFA chapter budget to support POA	3.28	.86

Note. [1]Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 5 reports participants' motivation level for the National Quality Program Standard 4 school and community partnerships. The highest means based upon quality indicators were "Participate in key stakeholder activities" (*M*=3.44, *SD*=.79) and "Recognize key stakeholders for their support of the AFNR program" (*M*=3.41, *SD*=.85).

Table 5

Motivation Level of Beginning Agriculture Education Teachers for the National Quality Program Standard 4 School and Community Partnerships

Standard 4 Quality Indicators	*M*[1]	*SD*
Participate in key stakeholder activities	3.44	.79
Recognizing key stakeholders for their support of the AFNR program	3.41	.85
Engage key stakeholders with the AFNR program	3.28	.92
Keep key stakeholders regularly informed regarding the AFNR program	3.18	.98

Note. [1]Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 6 reports participants' motivation level for the National Quality Program Standard 5 marketing. The highest means based upon quality indicators were "Implement a strategic marketing effort" (*M*=3.95, *SD*=6.64) and "Utilize relevant AFNR program data for marketing and communication purposes" (*M*=3.20, *SD*=.65).

Table 6

Motivation Level of Beginning Agriculture Education Teachers for the National Quality Program Standard 5 Marketing

Standard 5 Quality Indicators	*M*[1]	*SD*
Implement a strategic marketing effort	3.95	6.64
Utilize relevant AFNR program data for marketing and communication purposes	3.20	.65
Constructing a recruitment and retention plan	3.08	.81

Note. [1]Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 7 reports participants' motivation level for the National Quality Program Standard 6 certified agriculture teachers and professional growth. The highest means based upon quality indicators were "Advocating for AFNR education as a career opportunity" (*M*=3.73, *SD*=.51) and "Holding a contract that includes adequate time and compensation to meet requirements of AFNR education program" (*M*=3.63, *SD*=.67).

Table 7

Motivation Level of Beginning Agriculture Education Teachers for the National Quality Program Standard 6 Certified Agriculture Teachers and Professional Growth

Standard 6 Quality Indicators	*M*[1]	*SD*
Advocating for AFNR education as a career opportunity	3.73	.51
Holding a contract that includes adequate time and compensation to meet requirements of AFNR education program	3.63	.67
Maintaining a state certification to teach AFNR education	3.60	.67
Serving as a FFA advisor that is a certified AFNR teacher	3.58	.68
Participating in state and national professional AFNR education associations	3.40	.74

Contributing to the technical and pedagogical knowledge base of the profession	3.28	.89

Note. [1]Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 8 reports participants' motivation level for the National Quality Program Standard 7 program planning and evaluation. The highest means based upon quality indicators were "Maintaining and utilizing a representative advisory committee for AFNR program for program direction and development" (*M*=3.15, *SD*=.70) and "Implementing an AFNR program budget that provides the financial resources to support the current and planned needs of the program" (*M*=3.10, *SD*=.84).

Table 8

Motivation Level of Beginning Agriculture Education Teachers for the National Quality Program Standard 7 Program Planning and Evaluation

Standard 7 Quality Indicators	*M*[1]	*SD*
Maintaining and utilizing a representative advisory committee for the AFNR program for program direction and development	3.15	.70
Implementing an AFNR program budget that provides the financial resources to support the current and planned needs of the program	3.10	.84
Surveying key stakeholders on their expectations and current assessment of program quality and the success of students	3.03	.83
Collecting relevant AFNR education program data and reporting to key stakeholders	3.00	.85
Launching a five-year strategic plan addressing the seven standards of the National Quality Program Standards document that is created and implemented	2.58	.98

Note: [1]Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Objective 3: Determine participant's motivation level for teaching agriculture based upon overall ranking of seven National Quality Program Standards.

Table 9 displays the results of motivation level for overall ranking of the seven National Quality Program Standards. Participants ranked the seven standards from most important

(score=1) to least important (score=7). For the ranking of most important, participants ranked standard 3 leadership and personal development through FFA (*M*=2.68, *SD*=1.56). The next standard ranked following most important was standard 2 experiential, project, and work-based learning through SAE (*M*=3.03, *SD*=1.72). The least important standard was standard 5 marketing (*M*=5.68, *SD*=1.63). Above this least important ranking was standard 7 program planning and evaluation (*M*=5.68, *SD*=1.63).

Table 9

Motivation Level for Beginning Agriculture Education Teachers for Teaching Agriculture Based Upon Overall Ranking of Seven National Quality Program Standards

National Quality Program Standard	*M*[1]	*SD*
Standard 3 Leadership and Personal Development through FFA	2.68	1.56
Standard 2 Experiential, Project, and Work-Based Learning through SAE	3.03	1.72
Standard 1 Program Design and Instruction	3.49	1.91
Standard 4 School and Community Partnerships	3.58	1.55
Standard 6 Certified Agriculture Teachers and Professional Growth	4.50	1.94
Standard 7 Program Planning and Evaluation	5.12	1.85
Standard 5 Marketing	5.68	1.63

Note. [1]Mean score based upon ranking of each standard from 1 (highest priority) to 7 (lowest priority).

Objective 4: Compare participant's personal and program characteristics to their level of motivation for each National Quality Program Standard and quality indicator.

To compare participant's personal and program characteristics to their level of motivation for each National Quality Program Standards two tailed *t*-test and analysis of variance (ANOVA) were utilized to assess differences across groups based on means. ANOVA was utilized when three or more groups were presented.

Table 10 reports findings from *t*-test based on gender (male and females) for level for motivation for each national program quality standard. First, equality of variances was determined using the Levene's Test. All standards met equality of variances accept standard 6,

which equal variances was not assumed. Data reported reflects equal variances for all checked at an alpha level of .05. The *t*-test between males and females revealed statically significance differences in the means of standard 1A program design- curriculum and program design (*t*=2.17, *p*=.04), standard 1B (*t*=1.99, *p*=.05) standard 1C program design facilities and equipment (*t*=2.92, *p*=.01), standard 1 A-D total (*t=2.82, p*=.01), standard 4 school and community partnerships (*p*=.02), and standard 7 program planning and evaluation (*t*=2.51, *p*=.01). Males (*M*=3.30, *SD*=.56) tended to more motivated by program design in curriculum than females (*M*= 2.82, *SD*=.76) for Standard 1A. Based on the limits of scale, both males (*M*=3.30) and females (*M*=2.82) viewed curriculum as somewhat of a motivator. In Standard 1B program design in instruction, males (*M*=3.51, *SD*=.44) tended to more motivated over females (*M*=3.22, *SD*=.44). Based on the limits of scale, males (*M*=3.51) viewed this standard area as a strong motivator while females (*M*=3.22) viewed it as somewhat of a motivator. For Standard 1C program design in facilities and maintenance, males (*M*=3.68, *SD*=.41) were more motivated in this area over females (*M*=3.16, *SD* =.61). Based on the limits of scale, males (*M*=3.68) viewed facilities and maintenance as a strong motivator while females (*M*=3.16) viewed it as somewhat of a motivator. For the complete summary of Standard 1 A-D, males (*M*=3.47, *SD*=.45) were more motivated in this standard area over females (*M*=3.06, *SD*=.44). Based on limits of scale, both male (*M*=3.47) and females (*M*=3.06) believe this standard area serves as somewhat of a motivator. Standard 4 in school and community partnerships also proved that males (*M*=3.72, *SD*=.46) were more motivated than females (*M*=3.10, *SD*=.88). Based on the limits of scale, males (*M*=3.72) view partnerships as a strong motivator while females (*M*=3.10) view them as somewhat of a motivator. Standard 7 in program planning and evaluation proved another significant difference in the motivation level by gender. Males (*M*=3.31, *SD*=.64) were

more motivated in this standard area over females (*M*=2.73, *SD*=.59). Based on limits of scale, both male (*M*=3.31) and female (*M*=2.73) groups view program planning and evaluation as somewhat of a motivator. Means were not significantly different in other standards reported.

Table 10

Difference Between Males and Females for Level of Motivation for Each National Quality Program Standard

Quality Indicator	*Mean*[4]	*SD*	*t*	*p*
Standard 1A Program Design-Curriculum				
Male	3.30	.56	2.17	.04*
Female	2.82	.76		
Standard 1B Program Design- Instruction				
Male	3.51	.44	1.99	.05*
Female	3.22	.44		
Standard 1C Program Design- Facilities & Equipment				
Male	3.68	.41	2.92	.01*
Female	3.16	.61		
Standard 1D Program Design- Assessment				
Male	3.40	.62	1.77	.09
Female	3.05	.59		
Standard 1 A-D Total				
Male	3.47	.45	2.82	.01*
Female	3.06	.44		
Standard 2 Experiential, Project, & Work Based Learning Through SAE				
Male	3.39	.49	1.89	.07
Female	3.06	.59		
Standard 3[1] Leadership & Personal Development Through FFA				
Male	3.64	.44	1.46	.15
Female	3.36	.66		
Standard 4[2] School & Community Partnerships				
Male	3.72	.46	2.51	.02*
Female	3.10	.88		
Standard 5 Marketing				
Male	3.40	.68	-0.07	.95
Female	3.45	3.06		
Standard 6[3] Certified Agriculture Teachers & Professional Growth				
Male	3.70	.37	1.60	.12
Female	3.44	.63		
Standard 7 Program Planning & Evaluation				
Male	3.31	.64	2.93	.01*

Female	2.73	.59	

Note. *N* for Males= 16; *N* for Females= 23 unless otherwise noted
[1] *N* for Females= 22
[2]*N* for Males=15
[3]Equal variances not assumed
[4]Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 11 reports findings from *t*-test based on age categories (Age 22 and under and Age 23 and over) for level for motivation for each national quality program standard. First, equality of variances was determined using the Levene's Test. All standards met equality of variances. Data reported reflects equal variances assumed and an alpha level of .05. *T*-test results showed significant statistical difference between age categories and an agriculture teacher's level of motivation for standard 1A program design curriculum (t=2.17, p=.03) and standard 7 program planning and evaluation (t=2.93, p=.03). For standard 1A program design in curriculum, participants age 22 and under (M=2.89, SD=.71) reported show less motivation for this standard area compared to those age 23 and older (M=3.50, SD=.57). Based on limits of scale, both age groups view this standard as somewhat of a motivator. For standard 7 program planning and evaluation, age 22 and under (M=2.85, SD=.66) view this standard as less of a motivator compared to age 23 and over (M=3.43, SD=.42). Based on limits of scale, both age groups view this standard as somewhat of a motivator. Means were not statistically significant for other standards reported.

Table 11

Difference Between Age Categories for Level of Motivation for Each National Quality Program Standard

Quality Indicator	*Mean*[3]	*SD*	*t*	*p*
Standard 1A Program Design-Curriculum				
Age 22 and under	2.89	.71	2.17	.03*
Age 23 and older	3.50	.57		
Standard 1B Program Design- Instruction				

Age 22 and under	3.31	.45	1.99	.43
Age 23 and older	3.46	.49		
Standard 1C Program Design- Facilities & Equipment				
Age 22 and under	3.32	.61	2.92	.28
Age 23 and older	3.58	.49		
Standard 1D Program Design- Assessment				
Age 22 and under	3.11	.61	1.77	.09
Age 23 and older	3.53	.59		
Standard 1 A-D Total				
Age 22 and under	3.16	.46	2.82	.06
Age 23 and older	3.51	.49		
Standard 2 Experiential, Project, & Work Based Learning Through SAE				
Age 22 and under	3.13	.59	1.89	.19
Age 23 and older	3.43	.43		
Standard 3[1] Leadership & Personal Development Through FFA				
Age 22 and under	3.44	.63	1.46	.39
Age 23 and older	3.64	.36		
Standard 4[2] School & Community Partnerships				
Age 22 and under	3.32	.84	2.51	.76
Age 23 and older	3.43	.61		
Standard 5 Marketing				
Age 22 and under	3.46	2.64	-.07	.86
Age 23 and older	3.30	.65		
Standard 6 Certified Agriculture Teachers & Professional Growth				
Age 22 and under	3.54	.56	1.46	.93
Age 23 and older	3.56	.51		
Standard 7 Program Planning & Evaluation				
Age 22 and under	2.85	.66	2.93	.03*
Age 23 and older	3.43	.52		

Note. N for Age under 22= 31; *N* for Age 23 or older= 8 unless otherwise noted

[1] *N* for Age under 22= 30

[2] *N* for Age 23 or older= 7

[3] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 12 provides mean comparisons using a *t*-test between the numbers of Agricultural Education teachers per program based on their level of motivation for each national quality program standard. Equality of variances was determined using the Levene's Test. All standards

met equality of variances. Data reported reflects equal variances assumed and an alpha level of .05. The *t*-test between means for number of agricultural education teachers per program proved a significant statistical difference based on standard 1A program design-curriculum and program design (*t*=-2.16 ,*p*=.04), standard 1 A-D total (*t*=-2.06, *p*=.05) and standard 7 program planning and evaluation (*t=-2.73, p*=.02). For standard 1A program design in curriculum, single teachers (*M*=2.89, *SD*=.72) viewed this standard as less of a motivator than multiple teacher programs (*M*=3.51, *SD*=.61). Based on limits of scale, single teachers (*M*=2.89) view curriculum as somewhat of a motivator while multiple teacher programs (*M*=3.51) see it as a strong motivator. Standard 1 A-D total found that single teachers (*M*=3.16, *SD*=46) are less motivated for program design compared to multiple teacher programs (*M*=3.56, *SD*=51). Based on limits of scale, single teachers (*M*=3.16) view program design as somewhat of a motivator while multiple teacher programs view it as a strong motivator (*M*=3.56). For standard 7 program planning and evaluation, single teachers (*M*=2.85, *SD*=.66) view this standard as less of a motivator than multiple teacher programs (*M*=3.49, *SD*=.53). Based on limits of scale, both single and multiple teacher programs view this standard as somewhat of a motivator. Mean differences were not significant for other standards.

Table 12
Difference Between Number of Agricultural Education Teachers Per Program for Level of Motivation for Each National Quality Program Standard

Quality Indicator	*Mean*[3]	*SD*	*t*	*p*
Standard 1A Program Design-Curriculum				
Single Teacher Program	2.89	.72	-2.16	.04*
Multiple Teacher Program	3.51	.61		
Standard 1B Program Design- Instruction				
Single Teacher Program	3.31	.45	-1.10	.28
Multiple Teacher Program	3.52	.49		
Standard 1C Program Design- Facilities & Equipment				
Single Teacher Program	3.32	.61	-1.18	.25
Multiple Teacher Program	3.61	.51		
Standard 1D Program Design- Assessment				

Single Teacher Program	3.11	.61	-1.93	.06
Multiple Teacher Program	3.60	.60		
Standard 1 A-D Total				
Single Teacher Program	3.16	.46	-2.06	.05*
Multiple Teacher Program	3.56	.51		
Standard 2 Experiential, Project, & Work Based Learning Through SAE				
Single Teacher Program	3.13	.59	-1.51	.14
Multiple Teacher Program	3.49	.43		
Standard 3[1] Leadership & Personal Development Through FFA				
Single Teacher Program	3.44	.63	-.75	.46
Multiple Teacher Program	3.63	.39		
Standard 4[2] School & Community Partnerships				
Single Teacher Program	3.32	.84	-.26	.80
Multiple Teacher Program	3.42	.66		
Standard 5 Marketing				
Single Teacher Program	3.46	2.64	.13	.90
Multiple Teacher Program	3.33	.69		
Standard 6 Certified Agriculture Teachers & Professional Growth				
Single Teacher Program	3.54	.56	.19	.85
Multiple Teacher Program	3.50	.52		
Standard 7 Program Planning & Evaluation				
Single Teacher Program	2.85	.66	-2.73	.02*
Multiple Teacher Program	3.49	.53		

Note. N for Single Teacher= 31; *N* for Multiple Teachers= 7
[1]Standard 3 *N* for Single Teacher=30
[2]Standard 4 *N* for Multiple Teachers= 6
[3] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

In Table 13, an Analysis of Variance (ANOVA) was conducted to determine any differences in the means reported based on total student population of school in which agriculture program is run. The significance level used to determine differences in means was $p<.05$. The ANOVA based upon student population reported no significant statistical differences in means based on any of the quality standards.

Table 13
One-Way Analysis of Variance of Level of Motivation for National Quality Program Standard by Total Student Population

Quality Indicator	*Mean*[1]	*SD*	*t*	*p*

Standard 1A Program Design-Curriculum				
1-499 students	3.30	.45	1.73	.18
500-899 students	3.13	.54		
900-1099 students	2.58	1.12		
Over 1100 students	3.05	.52		
Standard 1B Program Design- Instruction				
1-499 students	3.44	.43	.17	.91
500-899 students	3.32	.51		
900-1099 students	3.28	.48		
Over 1100 students	3.35	.46		
Standard 1C Program Design- Facilities & Equipment				
1-499 students	3.56	.31	.39	.76
500-899 students	3.31	.67		
900-1099 students	3.27	.65		
Over 1100 students	3.38	.66		
Standard 1D Program Design- Assessment				
1-499 students	3.38	.62	.89	.46
500-899 students	2.95	.87		
900-1099 students	3.29	.38		
Over 1100 students	3.24	.48		
Standard 1 A-D Total				
1-499 students	3.42	.31	.65	.59
500-899 students	3.18	.58		
900-1099 students	3.10	.55		
Over 1100 students	3.26	.44		
Standard 2 Experiential, Project, & Work-Based Learning Through SAE				
1-499 students	3.13	.68	.08	.97
500-899 students	3.26	.68		
900-1099 students	3.19	.42		
Over 1100 students	3.18	.53		
Standard 3 Leadership & Personal Development Through FFA				
1-499 students	3.64	.40	.33	.81
500-899 students	3.40	.82		
900-1099 students	3.53	.45		
Over 1100 students	3.41	.55		
Standard 4 School & Community Partnerships				
1-499 students	3.21	.98	1.23	.32
500-899 students	3.05	.97		
900-1099 students	3.69	.46		
Over 1100 students	3.43	.65		
Standard 5 Marketing				
1-499 students	3.33	.56	1.08	.37
500-899 students	2.85	.78		
900-1099 students	4.63	4.78		

Over 1100 students	3.10	.60		
Standard 6 Certified Agriculture Teachers & Professional Growth				
1-499 students	3.48	.69	.21	.89
500-899 students	3.58	.61		
900-1099 students	3.46	.48		
Over 1100 students	3.64	.47		
Standard 7 Program Planning & Evaluation				
1-499 students	3.33	.52	1.28	.30
500-899 students	3.02	.82		
900-1099 students	2.73	.63		
Over 1100 students	2.85	.59		

Note. [1] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 14 reports findings from *t*-test based on average number of courses taught per day by agriculture education teacher (categories 1 to 4 and 5 to 7) for level for motivation for each national quality program standard. First, equality of variances was determined using the Levene's Test. Standards not meeting equality of variances were standard 1D program design-assessment and standard 4 school and community partnerships. Equal variances were not assumed for these standards. Data reported based upon an alpha level of .05. *T*-test results showed no significant statistical difference between number of courses taught per day and an agriculture teacher's level of motivation for each national quality program standard.

Table 14

Difference Between Number of Courses Taught Per Day for Level of Motivation for Each National Quality Program Standard

Quality Indicator	*Mean*[3]	*SD*	*t*	*p*
Standard 1A Program Design-Curriculum				
1 to 4 courses	3.18	.55	1.59	.12
5 to 7 courses	2.82	.85		
Standard 1B Program Design- Instruction				
1 to 4 courses	3.45	.47	1.66	.11
5 to 7 courses	3.21	.43		
Standard 1C Program Design- Facilities & Equipment				
1 to 4 courses	3.51	3.53	1.60	.12
5 to 7 courses	3.21	.63		

Standard 1D Program Design- Assessment				
1 to 4 courses	3.30	.75	1.20	.22
5 to 7 courses	3.07	.41		
Standard 1 A-D Total				
1 to 4 courses	3.36	.51	1.92	.68
5 to 7 courses	3.08	.42		
Standard 2 Experiential, Project, & Work Based Learning Through SAE				
1 to 4 courses	3.35	.72	1.97	.06
5 to 7 courses	3.01	.49		
Standard 3[1] Leadership & Personal Development Through FFA				
1 to 4 courses	3.40	.72	-.88	.38
5 to 7 courses	3.57	.37		
Standard 4[2] School & Community Partnerships				
1 to 4 courses	3.13	.97	-1.89	.07
5 to 7 courses	3.58	.46		
Standard 5 Marketing				
1 to 4 courses	3.17	.73	-.72	.48
5 to 7 courses	3.75	3.42		
Standard 6 Certified Agriculture Teachers & Professional Growth				
1 to 4 courses	3.60	.52	.59	.56
5 to 7 courses	3.49	.59		
Standard 7 Program Planning & Evaluation				
1 to 4 courses	3.06	.79	.88	.38
5 to 7 courses	2.87	.49		

Note. N for 1 to 4 classes= 21; *N* for 5 to 7 classes= 18
[1]Standard 3 *N* for 5 to 7 classes=17
[2]Standard 4 *N* for 1 to 4 classes=20
[3] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

In Table 15, an Analysis of Variance (ANOVA) was conducted to determine any differences in the means reported based on average number of students per course as taught by agriculture education teacher. The significance level used to determine differences in means was $p<.05$. The ANOVA based upon number of students per course found a significant statistical difference in means between groups for standard 1C program design in facilities and equipment

(t=3.54, p= .04). Tukey HSD was run on data as a post hoc test to further investigate the statistical significance reported. The post hoc test found no statistical difference between groups.

Table 15

One-Way Analysis of Variance of Level of Motivation for Each National Program Quality Standard by Average Number of Students Per Course

Quality Indicator	*Mean*[1]	*SD*	*t*	*p*
Standard 1A Program Design-Curriculum				
11 to 20 students	3.20	.38	1.79	.18
21 to 30 students	2.79	.88		
31 to 40 students	3.26	.49		
Standard 1B Program Design- Instruction				
11 to 20 students	3.41	.41	1.22	.31
21 to 30 students	3.22	.48		
31 to 40 students	3.50	.53		
Standard 1C Program Design- Facilities & Equipment				
11 to 20 students	3.58	.36	3.54	.04*
21 to 30 students	3.14	.66		
31 to 40 students	3.66	.45		
Standard 1D Program Design- Assessment				
11 to 20 students	3.31	.54	.62	.54
21 to 30 students	3.08	.69		
31 to 40 students	3.29	.53		
Standard 1 A-D Total				
11 to 20 students	3.38	.27	2.48	.10
21 to 30 students	306	.56		
31 to 40 students	3.43	.43		
Standard 2 Experiential, Project, & Work-Based Learning Through SAE				
11 to 20 students	3.10	.61	.32	.73
21 to 30 students	3.16	.63		
31 to 40 students	3.33	.36		
Standard 3 Leadership & Personal Development Through FFA				
11 to 20 students	3.64	.40	.99	.39
21 to 30 students	3.35	.71		
31 to 40 students	3.55	.33		
Standard 4 School & Community Partnerships				
11 to 20 students	3.28	.78	1.01	.38
21 to 30 students	3.24	.87		
31 to 40 students	3.55	.33		
Standard 5 Marketing				
11 to 20 students	3.21	.54	2.54	.09
21 to 30 students	2.97	.67		

31 to 40 students	5.14	5.40		
Standard 6 Certified Agriculture Teachers & Professional Growth				
11 to 20 students	3.51	.63	.14	.87
21 to 30 students	3.58	.54		
31 to 40 students	3.45	.45		
Standard 7 Program Planning & Evaluation				
11 to 20 students	3.16	.50	.83	.44
21 to 30 students	2.85	.80		
31 to 40 students	3.003	.27		

Note. [1] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 16 reports findings from t-test based on school type (middle or high school) for level for motivation for each national program quality standard. First, equality of variances was determined using the Levene's Test. All standards met equality of variances. Data reported based upon an alpha level of .05. *T*-test results showed no significant statistical difference between school type and an agriculture teacher's level of motivation for each national quality program standard.

Table 16

Difference Between School Type for Level of Motivation for Each National Quality Program Standard

Quality Indicator	*Mean*[2]	*SD*	*t*	*p*
Standard 1A Program Design-Curriculum				
Middle school	2.90	.97	2.00	.47
High school	3.07	.48		
Standard 1B Program Design- Instruction				
Middle school	3.44	.44	.00	.37
High school	3.30	.46		
Standard 1C Program Design- Facilities & Equipment				
Middle school	3.39	.69	2.41	.79
High school	3.34	.53		
Standard 1D Program Design- Assessment				
Middle school	3.35	.49	.21	.27
High school	3.13	.67		
Standard 1 A-D Total				
Middle school	3.27	.54		.72
High school	3.21	.45		

Standard 2 Experiential, Project, & Work Based Learning Through SAE				
Middle school	3.35	.60	2.45	.24
High school	3.14	.48		
Standard 3[1] Leadership & Personal Development Through FFA				
Middle school	3.58	.72	.22	.34
High school	3.39	.49		
Standard 4[2] School & Community Partnerships				
Middle school	3.50	.92	.24	.25
High school	3.19	.69		
Standard 5 Marketing				
Middle school	4.06	.57	2.79	.17
High school	2.98	.71		
Standard 6 Certified Agriculture Teachers & Professional Growth				
Middle school	3.68	.47	1.42	.34
High school	3.52	.50		
Standard 7 Program Planning & Evaluation				
Middle school	3.06	.75	1.42	.52
High school	2.91	.63		

Note. *N* for Middle School= 16; *N* for High School= 22
[1]Standard 3 *N* for Middle School=15; [2]Standard 4 *N* for High School=21
[2] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 17 reports findings from t-test based on highest degree level for teacher (Bachelor's degree or above a Bachelor's) for level for motivation for each national quality program standard. First, equality of variances was determined using the Levene's Test. Standards not meeting equality of variances were standard 1A, standard 3, standard 7, and standard 1 total A-D. *T*-test data reported for these standards was based on equal variances not assumed. Data reported based upon an alpha level of .05. *T*-test results showed no significant statistical difference between educational degree and an agriculture teacher's level of motivation for each national quality program standard.

Table 17

Difference Between Highest Educational Degree for Level of Motivation for Each National Quality Program Standard

Quality Indicator	*Mean*[3]	*SD*	*t*	*p*
Standard 1A Program Design-Curriculum				
Bachelor's degree	3.06	.44	5.14	.42
Above a bachelor's degree	2.85	1.01		
Standard 1B Program Design- Instruction				
Bachelor's degree	3.32	.48	.02	.91
Above a bachelor's degree	3.34	.45		
Standard 1C Program Design- Facilities & Equipment				
Bachelor's degree	3.43	.48	2.15	.35
Above a bachelor's degree	3.25	.67		
Standard 1D Program Design- Assessment				
Bachelor's degree	3.20	.64	.08	.85
Above a bachelor's degree	3.16	.62		
Standard 1 A-D Total				
Bachelor's degree	3.25	.43	4.32	.55
Above a bachelor's degree	3.15	.59		
Standard 2 Experiential, Project, & Work Based Learning Through SAE				
Bachelor's degree	3.20	.46	1.39	.89
Above a bachelor's degree	3.18	.66		
Standard 3[1] Leadership & Personal Development Through FFA				
Bachelor's degree	3.59	.36	1.38	.18
Above a bachelor's degree	3.30	.79		
Standard 4[2] School & Community Partnerships				
Bachelor's degree	3.38	.71	.19	.66
Above a bachelor's degree	3.25	.92		
Standard 5 Marketing				
Bachelor's degree	3.75	3.35	1.85	.43
Above a bachelor's degree	3.10	.62		
Standard 6 Certified Agriculture Teachers & Professional Growth				
Bachelor's degree	3.59	.47	.04	.86
Above a bachelor's degree	3.56	.51		
Standard 7 Program Planning & Evaluation				
Bachelor's degree	3.07	.51	4.67	.34
Above a bachelor's degree	2.85	.83		

N for Bachelor's= 19; *N* for Above a Bachelor's= 17

[1]Standard 3 *N* for Above a Bachelor's=16

[2]Standard 4 *N* for Bachelor's= 18

[3] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

In Table 18, an Analysis of Variance (ANOVA) was conducted to determine any differences in the means reported based on teacher preparation type; undergraduate with teacher certification, graduate with teacher certification, alternative teacher certification, and other. The significance level used to determine differences in means between groups was $p<.05$. The ANOVA based upon teacher preparation type is reported in Table 18. The ANOVA reported no significant statistical differences in means based on any of the quality standards.

Table 18

One-Way Analysis of Variance of Level of Motivation for Each National Quality Program Standard by Teacher Preparation Type

Quality Indicator	*Mean*[1]	*SD*	*t*	*p*
Standard 1A Program Design-Curriculum				
Undergraduate with teacher certification	3.05	.48	.11	.96
Graduate with teacher certification	2.90	1.06		
Alternative teacher education	3.04	.55		
Other	3.05	.72		
Standard 1B Program Design- Instruction				
Undergraduate with teacher certification	3.37	.55	.20	.89
Graduate with teacher certification	3.42	.45		
Alternative teacher education	3.26	.42		
Other	3.38	.21		
Standard 1C Program Design- Facilities & Equipment				
Undergraduate with teacher certification	3.39	.51	.28	.84
Graduate with teacher certification	3.29	.74		
Alternative teacher education	3.49	.58		
Other	3.20	.55		
Standard 1D Program Design- Assessment				
Undergraduate with teacher certification	3.00	.65	1.20	.33
Graduate with teacher certification	3.22	.66		
Alternative teacher education	3.47	.46		
Other	3.40	.52		
Standard 1 A-D Total				
Undergraduate with teacher certification	3.20	.47	.12	.96
Graduate with teacher certification	3.21	.59		
Alternative teacher education	3.31	.44		
Other	3.26	.48		
Standard 2 Experiential, Project, & Work-Based Learning Through SAE				
Undergraduate with teacher certification	3.12	.44	2.81	.05
Graduate with teacher certification	3.31	.58		

Alternative teacher education	3.51	.41		
Other	2.68	.65		
Standard 3 Leadership & Personal Development Through FFA				
Undergraduate with teacher certification	3.49	.44	.24	.87
Graduate with teacher certification	3.36	.92		
Alternative teacher education	3.49	.40		
Other	3.66	.19		
Standard 4 School & Community Partnerships				
Undergraduate with teacher certification	3.48	.61	.92	.44
Graduate with teacher certification	3.10	1.02		
Alternative teacher education	3.53	.51		
Other	2.92	1.28		
Standard 5 Marketing				
Undergraduate with teacher certification	3.97	4.07	.31	.82
Graduate with teacher certification	3.11	.67		
Alternative teacher education	3.22	.53		
Other	3.17	.58		
Standard 6 Certified Agriculture Teachers & Professional Growth				
Undergraduate with teacher certification	3.60	.50	.23	.87
Graduate with teacher certification	3.67	.54		
Alternative teacher education	3.50	.52		
Other	3.50	.30		
Standard 7 Program Planning & Evaluation				
Undergraduate with teacher certification	3.00	.51	.08	.97
Graduate with teacher certification	2.90	.88		
Alternative teacher education	3.04	.71		
Other	3.00	.57		

Note. [1] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Table 19 reports results of an Analysis of Variance (ANOVA) conducted to determine any differences in the means reported based on years teaching experience; less than 1-year experience, 1 to 10 years teaching experience, and 11 or more years teaching experience. This variable was utilized to determine if teachers were coming from an out of field experience, in another area other than agriculture education, impacted their motivation for the agriculture education program. The significance level used to determine differences in means between

groups was $p<.05$. The ANOVA reported no significant statistical differences in means based on any of the quality standards.

Table 19

One-Way Analysis of Variance of Level of Motivation for Each National Program Quality Standard by Years Teaching Experience

Quality Indicator	*Mean*[1]	*SD*	*F*	*p*
Standard 1A Program Design-Curriculum				
Less than 1 year	3.00	.46	.12	.89
2-10 years	2.93	.52		
11 years or more	3.09	1.27		
Standard 1B Program Design- Instruction				
Less than 1 year	3.33	.49	.30	.74
2-10 years	3.32	.35		
11 years or more	3.46	.52		
Standard 1C Program Design- Facilities & Equipment				
Less than 1 year	3.43	.53	.70	.50
2-10 years	3.18	.64		
11 years or more	3.44	.69		
Standard 1D Program Design- Assessment				
Less than 1 year	3.17	.61	1.45	.25
2-10 years	3.07	.65		
11 years or more	3.51	.49		
Standard 1 A-D Total				
Less than 1 year	3.23	.44	.65	.53
2-10 years	3.13	.44		
11 years or more	3.38	.64		
Standard 2 Experiential, Project, & Work-Based Learning Through SAE				
Less than 1 year	3.13	.56	1.18	.32
2-10 years	3.19	.55		
11 years or more	3.46	.47		
Standard 3 Leadership & Personal Development Through FFA				
Less than 1 year	3.55	.40	2.15	.13
2-10 years	3.18	.83		
11 years or more	3.69	.47		
Standard 4 School & Community Partnerships				
Less than 1 year	3.29	.70	1.10	.35
2-10 years	3.11	1.10		
11 years or more	3.64	.45		
Standard 5 Marketing				
Less than 1 year	3.74	3.45	.37	.69
2-10 years	2.94	.55		

11 years or more	3.44	.60		
Standard 6 Certified Agriculture Teachers & Professional Growth				
Less than 1 year	3.54	.47	.18	.83
2-10 years	3.62	.55		
11 years or more	3.65	.49		
Standard 7 Program Planning & Evaluation				
Less than 1 year	3.00	.49	1.51	.24
2-10 years	2.73	.78		
11 years or more	3.24	.81		

Note. [1] Scale of 0= Not a motivator, 1=Somewhat not a motivator, 2= Neither, 3= Somewhat of a motivator, 4= Strong motivator

Objective 5: Highlight any additional teaching activities associated with teaching agriculture that encourages teachers to remain in the profession.

In attempt to allow survey participants to respond on any additional activities they discovered in teaching agriculture that motivates them to remain in the profession, one open ended response question was included. Table 20 reports the findings of these responses (*n*=15). Most responses (46.67%) reported activities related to students as being an additional motivation for being in the agriculture education profession. The second greatest response (*f*=3, 20.00%) was a passion for agriculture and helping to teach others to improve their agricultural literacy.

Table 20

Open Ended Responses Grouped by Category Based on Content of Responses

Open Ended Response Category	*f*	*%*
Student centered- growth, success, opportunities	*7*	*46.67*
Passion for agriculture and teaching Ag literacy	*3*	*20.00*
Introducing students to career opportunities	*2*	*13.33*
More laid back than other academic areas; not so many standardized tests	*1*	*6.67*
Leadership development	*1*	*6.67*

Support from fellow Agriculture teachers	*1*	*6.67*

Note. Open ended response *N*=15

Chapter Summary

Chapter four reported on the findings of the study based upon the six study objectives. The research objectives were:

1. Describe participants by personal and program characteristics.
2. Describe participant's level of motivation for each National Quality Program Standard and quality indicator.
3. Determine participant's motivation level for teaching agriculture based upon overall ranking of seven National Quality Program Standards.
4. Compare participant's personal and program characteristics to their level of motivation for each National Quality Program Standard and quality indicator.
5. Highlight any additional teaching activities associated with teaching agriculture that encourages teachers to remain in the profession.

Findings

The findings presented in this chapter allow us a better insight into the motivation of beginning agriculture teachers in Georgia and their motivation for the profession. The research allowed assessment of teacher motivation based upon the National Quality Program Standards in comparison to gender, age, number of teachers in agriculture program, average number of courses taught per day, average number of students per course, school level, highest educational level, teacher preparation type, and years teaching experience. The findings in chapter four will be furthered analyzed and discussed in chapter five in the conclusions and recommendations.

CHAPTER 5: CONCLUSIONS

Introduction

The purpose of this study was to determine the motivations of beginning agricultural education teachers in Georgia for teaching agriculture. The study documents their motivation for teaching agriculture by assessing their motivation for completing skills and activities expected in the role of an agriculture teacher based upon the seven National Quality Program Standards and the quality indicators associated with each. An agriculture education teacher serves many roles and wears many hats daily while running an agriculture program. According to Lemons, Brashears, Burris, Meyers, and Price (2015), this long list of responsibilities and duties can have a toll on an agriculture educator and other aspects of their lives and can contribute to them deciding to leave the profession. This fact has left our nation in a need for agriculture educators with 769.5 open agriculture teaching positions in 2016 and 492 of these teachers leaving the profession for other opportunities (National Association of Agriculture Educators, 2016). These numbers are staggering and prove a need to know why our teachers are leaving or hopefully remaining in the profession.

Current research in new and beginning teachers in relation to job satisfaction focuses on the negative context of teaching agriculture. Areas of current research focus on the work load of teachers, stresses of the job, and reasons for leaving the profession (Hainline et al., 2015; King, Rucker, & Duncan, 2015; Lemons et al., 2015). This research must be completed to take a positive look into the profession of agriculture education and determine what tasks motivates beginning teachers in their work.

Summary of the Study

This study was designed to determine which daily agriculture education and program tasks serve as motivators for Georgia beginning agriculture teachers. The National Strategic Plan and Action Agenda for Agricultural Education Reinventing Agricultural Education for the Year 2020 presented in 2000 first goal was to ensure "an abundance of highly motivated, well-educated teachers in all disciplines, pre-kindergarten through adult, providing agriculture, food, fiber and natural resources systems education" (The National Council for Agricultural Education, 2000, p. 4). This study looks to help identify the National Quality Program Standards and quality indicators, which serve as daily duties and activities for an agriculture educator, serve as motivators for Georgia's beginning agriculture teachers. By identifying these task and duties, in relation to teacher motivation, hopefully teacher preparation programs will help tailor their curriculum to these motivators and in the end, states will have "an abundance of highly motivated, well-educated teachers in all disciplines" in the area of agriculture (The National Council for Agricultural Education, 2000, p.4). The additional research objectives that guided this study were:

1. Describe participants by personal and program characteristics.
2. Describe participant's level of motivation for each National Quality Program Standard and quality indicator.
3. Determine participant's motivation level for teaching agriculture based upon overall ranking of seven National Quality Program Standards.
4. Compare participant's personal and program characteristics to their level of motivation for each National Quality Program Standard and quality indicator.

The agriculture education program foundation lies in the total agriculture program, which consists of classroom and laboratory instruction, FFA, and the SAE. An agriculture teacher's daily jobs and duties revolve around these three intra-curricular components. These tasks as identified on the national level by the National Council for Agricultural Education in the National Quality Program Standards document served as the variables for this study. Utilizing these standards and allowing a teacher to respond with their motivation for each task, allowed data to be collected on that teacher's motivation for each task. Additional information was gathered on the participants overall ranking of the National Quality Program Standards including: program design and instruction, experiential, project, and work-based learning through SAE, leadership and personal development through FFA, school and community partnerships, marketing, certified agriculture teachers and professional growth, and program planning and evaluation.

A review of relevant literature in relation to motivation led to several studies regarding motivational research within the spectrum of agricultural education. A few studies exist considering the specific concepts of beginning agriculture teachers. However, the problem remains there is no current research combining these two factors; motivation and beginning teachers. The current research focuses on motivation dealing with students and their participation in programs and activities. We must understand the motivation for our students and their desires, but we must also remember that they are just one part of the equation. To have a successful classroom for everyone, we also need research to find out what motivates their teachers as well.

This descriptive and correlational study utilized a quantitative survey research design. The survey population (N=45) of Georgia beginning agriculture education teachers

was identified by the Georgia Agriculture Education State Staff. Participants either completed an online questionnaire or a paper copied survey to determine their level of motivation for each National Quality Program Standard and quality indicators. Further, participants ranked importance of national standards overall, responded openly to additional motivators in profession, and provided personal and program demographic information. Collected data was analyzed and reported by specific research objectives. Statistical information reported were frequencies, percentages, means, standard deviations, *t*-tests, and ANOVAs.

Conclusions and Discussion

During data analysis certain themes were presented during review. Beginning Georgia agriculture education teachers' level of motivation in connection to the National Quality Program Standards produced the following conclusions.

Based upon the personal and program characteristics the following was concluded. The majority of 2017-2018 Georgia beginning agriculture teachers were female and under the age of 25. Most participants have entered the agriculture education field via another route other than a traditional undergraduate program with teacher certification. The majority of Georgia agriculture educators during this academic year are true beginning teachers with less than one-year teaching experience. Eleven teachers reported having 1 to 10 years teaching experience and nine reported 11 or more years teaching experience

Next, the following was concluded based upon the National Quality Program Standards. Study participants reported the highest motivator for National Quality Program Standard 1 Program Design and Instruction Standard 1A was develop a POS that balances the three

components of the agriculture, food, and natural resource (AFNR) education, Standard 1B- building a classroom and laboratory instruction that is supplemented by experiential learning , Standard 1C- maintaining a facility designed to be accessibly and accommodating to all students, and Standard 1D- evaluating student growth continually as it relates to experiential learning.

The following was concluded based upon the remaining National Quality Programs Standards 2-7. The National Quality Program Standard 2 Experiential, Project, and Work-based Learning through Supervised Agricultural Experience (SAE). The highest motivator was meeting local and state expectations for providing direct supervision of and guidance for each student's SAE. The highest motivator for Standard 3 Leadership and Personal Development through FFA was arranging for all students enrolled in the AFNR program to have the opportunity to be a member of the FFA. The highest motivator for Standard 4 School and Community Partnerships was participate in key stakeholder activities. The highest motivator for Standard 5 was implement a strategic marketing effort. The highest motivator for Standard 6 Certified Agriculture Teachers and Professional Growth was advocating for AFNR education as a career opportunity. The highest motivator for Standard 7 Program Planning and Evaluation was maintaining and utilizing a representative advisory committee for AFNR program for program direction and development.

After the ranking of each standard, participants were asked to rank the seven standards overall. The most important National Quality Program Standard based on overall ranking was standard 3 leadership and personal development through FFA. The next standard ranked following most important was standard 2 experiential, project, and work-based learning through SAE. The least important standard was standard 5 marketing.

Utilizing the personal and program characteristics differences were found for certain standards. Group differences were found between male and female for standard 1A, standard 1B, standard 1C, aggregate standard 1 A-D, standard 4, and standard 7. Male and female agriculture education teachers differ in the National Quality Program Standards of curriculum and program design, facilities and equipment, aggregate for program design and instruction, and program planning and evaluation. Males were more motivated by program design of curriculum, instruction, facilities and maintenance, and overall more motivated by program design collectively when compared to females. Overall males and females viewed curriculum and standard 1 total as somewhat of a motivator based on the real limits of scale. Instruction and facilities and maintenance were viewed as strong motivators by males and somewhat of a motivator by females. For standard 4, school and community partnerships, found that males were more motivated than females in this standard area. Based on the limits scale, males view these partnerships as a strong motivator while females view them as somewhat of a motivator. Standard 7 in program planning and evaluation found that males were more motivated in this area compared to females. Both believe that this standard is somewhat of a motivator based on the limits of scale.

Group differences were also found between the age of agriculture education teachers. For standard 1A in curriculum, participants age 22 and under showed less motivation for this standard compared to those age 23 and older in agriculture education. Both ages groups view this standard as somewhat of a motivator in relation to the limits of scale. Standard 7 program planning and evaluation had the same response with the age 22 and under group finding this standard less of a motivator compared to age 23 and over. Based on limits of scale, both age groups view this standard as somewhat of a motivator.

The number of Agricultural Education teachers per program also produced differences in levels of motivation for national quality program standards 1A program design in curriculum, standard 1 A-D total, and standard 7 program planning and evaluation. For standard 1A in curriculum, single teachers viewed this standard as less of a motivator than multiple teacher programs being somewhat of a motivator by both groups. Standard 1 A-D total, single teachers viewed this standard as less of a motivator than multiple teacher programs; single teachers viewed this standard as somewhat of a motivator while multiple teachers viewed it as a strong motivator. For standard 7 program planning and evaluation, single teachers viewed this standard as less of a motivator than multiple teacher programs being somewhat of a motivator by both groups.

Other areas showing group differences for National Quality Program Standards for level of motivation based on average number of students per course taught by agriculture education teacher for standard 1C facilities and equipment. Post hoc test run completed and no statistical difference found within group means. The remaining research focused on the open-ended responses. The highest factor was based on student centered activities such as growth, success, and providing them with opportunities.

Conclusion: Over one-third of the 2017-2018 Georgia beginning agriculture teachers were female and under the age of 25.

Once thought to be a male dominated field is now quickly becoming just the opposite. According the Executive Summary produced by the National Agricultural Education Supply & Demand Study (2016), nationally, out of 772 programs completers, 516 (67%) were female and 256 (33%) were male. This study proved a similar situation with females dominating the study.

Just as today's agriculture students are largely different, the same is happening to our teaching population.

Conclusion: Most participants have entered the agriculture education field via another route other than a traditional undergraduate program with teacher certification.

Undergraduate agriculture education preparatory programs are considered the traditional teacher preparation route. In Georgia, this does not appear to be the overwhelming trend with the current beginning agriculture education teachers. The majority of beginning agriculture teachers in Georgia are entering the profession through an alternative route being: graduate school with teacher certification, alternative teacher certification, or transferring to the agriculture education subject area from another academic discipline within school.

Conclusion: Almost half of Georgia agriculture educators during this academic year are true beginning teachers with less than one-year teaching experience. Eleven teachers reported having 1 to 10 years teaching experience and nine reported 11 or more years teaching experience.

Agriculture teachers are coming from various levels of teaching experience. Almost half were true beginning teachers with less than one-year teaching experience, but almost half are also coming with teaching experience in other areas. According to the National Association of Agricultural Educators (2016), 797.5 agriculture positions were needed to be filled. To help fill this need, because not enough post-secondary students are being produced by educational preparation programs, recruitment of teachers is occurring from these alternate sources; industry and other academic content teachers.

Conclusion: National Program Quality Standard 1 Program Design and Instruction highest motivator based on highest mean and standard deviation

A. Standard 1A- Develop a POS that balances the three components of the agriculture, food, and natural resource (AFNR) education.

B. Standard 1B- Building a classroom and laboratory instruction that is supplemented by experiential learning.

C. Standard 1C- Maintaining a facility designed to be accessibly and accommodating to all students.

D. Standard 1D- Evaluating student growth continually as it relates to experiential learning.

Program design and instruction are key components to the total agriculture education program of classroom/lab, FFA, and SAE. Teachers embrace this program and are motivated to build a classroom and lab that offers these experiential learning opportunities to their students. Additional areas of motivation include maintaining agriculture education lab facilities and evaluating student growth in experiential learning. According to process theories, through these external factors, teachers can be motivated within (Stotz & Bolger, 2017).

Conclusion: National Quality Program Standard 2 Experiential, Project, and Work-based Learning through Supervised Agricultural Experience (SAE) highest motivator based on highest mean and standard deviation- Meeting local and state expectations for providing direct supervision of and guidance for each student's SAE.

Among all the duties of an agriculture teacher, meeting local and state expectations proves to be a motivator for beginning teachers in SAE programs. Meeting these expectations produces a "reward" for teachers; SAE programs serves as one factor on a teacher's yearly evaluation. This motivation can be a result of operant conditioning; teachers know they will receive positive

reinforcement (extended year and day pay) if they meet the SAE expectations set by the local and state agriculture education staff.

Conclusion: National Program Quality Standard 3 Leadership and Personal Development through FFA highest motivator based on highest mean and standard deviation - Arranging for all students enrolled in the AFNR program to have the opportunity to be a member of the FFA.

Agriculture educators understand the importance of the FFA program to their students. Teachers are motivated through this organization when they can see the opportunities awarded their students. A key wording in this standard is "for all students enrolled in the AFNR program." Teachers are motivated to provide the FFA experience to all their members within their program.

Conclusion: National Quality Program Standard 4 School and Community Partnerships highest motivator based on highest mean and standard deviation - Participate in key stakeholder activities.

The agriculture education program is part of the community within they are housed. Due to the nature of the program, an agriculture teacher and students are actively involved and a visible part of the school system within the community. Because of this fact, beginning agriculture education teachers are motivated by participation in key stakeholder activities. These activities allow teachers to expose the community to their program and the events going on. Keeping key stakeholders informed on the agriculture program creates a relationship for future support. This supports the process theories based in motivation; external factors create motivation within an individual. If teachers see the opportunity to gain support to further their programs and students, then they are motivated to participate in key stakeholder activities.

Conclusion: National Program Quality Standard 5 Marketing highest motivator based on highest mean and standard deviation - Implement a strategic marketing effort.

The implementation of a strategic marketing effort serves as the highest motivator in the standard 5 of marketing. Again, the ability to inform others in the community and school setting on the agriculture education program produces motivation within the teacher. Implementation is a key part of this standard; teachers realize the need to put the marketing plan into action. Spreading the news on an agriculture education program only helps to make others aware of the events and successes of a program. Sharing this information only strengthens the support found within the community, which helps the teacher in return.

Conclusion: National Program Quality Standard 6 Certified Agriculture Teachers and Professional Growth highest motivator based on highest mean and standard deviation- Advocating for AFNR education as a career opportunity.

Agriculture education teachers have entered the profession partially because of their passion for agriculture. Being able to teach students about this industry and the career opportunities found within the AFNR sector brings motivation within the teacher. The teacher being able to share their passion with their students and then potentially leading those students to a career in the AFNR industry furthers that teacher's internal motivation. Teachers feel their instruction and teaching has not returned void.

Conclusion: National Program Quality Standard 7 Program Planning and Evaluation highest motivator based on highest mean and standard deviation- Maintaining and utilizing a representative advisory committee for AFNR program for program direction and development.

The advisory committee provides support and direction for the AFNR program. This committee serves as a huge cheerleader and critic, if needed, of the program. The teacher receives motivation from this group from their feedback provided. Process theory is applied as the teacher receives this feedback on the program and internalizes it into themselves. The teacher also gains motivation by knowing a group of individuals are dedicated and try to help better the program they invest so much into.

Conclusion: Most important National Program Quality Standard based on overall ranking was standard 3 leadership and personal development through FFA. The next standard ranked following most important was standard 2 experiential, project, and work-based learning through SAE. The least important standard was standard 5 marketing.

Based on the seven National Quality Program Standards the highest overall standard ranked with standard 3; leadership and personal development through FFA. Teachers understand the importance of this part of the total program. FFA allows a student to bring the other two parts, class/lab and SAE, into the leadership program of FFA. This is also the area where teachers get to see their students succeed through Career Development Events, obtaining leadership positions, winning proficiency awards, and the list goes on. Seeing their students succeed and grow personally motivates teachers. The next highest priority standard 3, also focuses on the total program component of the SAE. The least important standard was standard 5 marketing. Teachers see the importance of marketing based on the need to implement a strategic plan based on the ranking of standard 5 quality indicators, but in general teachers are least motivated by marketing. The to-do list for an agriculture teacher is always long and marketing can sometimes be the last item on this list.

Conclusion: Group differences found between male and female for standard 1A, standard 1B, standard 1C, aggregate standard1 A-D, standard 4, and standard 7. Male and female agriculture education teachers differ in the National Quality Standards of curriculum and program design, instruction, facilities and equipment, aggregate for program design and instruction, and program planning and evaluation.

Male and female brains are anatomically different creating differences in abilities (Goldman, 2018). This could potentially be a difference found between male and female agriculture education teachers based on what motivates them. Women are known to excel in verbal ability while men are better at visuospatial skills (Goldman, 2018). Being that curriculum, program design, instruction, planning and evaluation are more verbal based activities this could possibly explain the difference. Facilities and equipment management would be more hands-on tasks for the male population. Overall, both male and female participants determined that program design and instruction is somewhat of a motivator. Additional research needs to be further conducted to investigate the difference between male and female agriculture education teachers.

Conclusion: Group differences found between age categories. Teachers age 22 and under differ in their motivation levels from teachers age 23 and older in the National Quality Standards for standard 1A program design curriculum and standard 7 program planning and evaluation.

Curriculum and program planning/evaluation were somewhat as a motivator for both age levels. Teachers age 23 and older were higher motivated in program design curriculum and program planning/evaluation in comparison to the age 22 and under group. Being that all study participants were new and beginning teachers in agriculture education means they were all facing the same battles as new agriculture teachers. However, some participants did come from another

subject area and had previous teaching experience. Also, some study participants entered teaching via an alternative path and may come with more experience in professional settings. In general, the development of course curriculum is a daunting task for a new teacher. Also, the idea of evaluation can cause veteran teachers to fret much less someone new in the field.

Conclusion: Group differences found between numbers of agriculture education teachers per program. Single teacher and multiple teacher programs differ in the National Quality Standards for level of motivation for standard 1A program design-curriculum and program design standard 1 A-D total, and standard 7 program planning and evaluation.

Single and multiple teacher programs differ in the standard program design in curriculum and program design as well as the overall standard 1. Curriculum is seen as somewhat of a motivator for both groups. The total program design standard was determined to be somewhat of a motivator for single teacher programs and a strong motivator for multiple teacher programs. The ability to share the work load within a multiple teacher program and have others to bounce ideas off may explain this difference. Standard 7 of the program planning and evaluation would also benefit from having others to work with in this effort. Both single and multiple teacher programs felt this standard was somewhat of a motivator. Single teachers are required to complete all duties of the agriculture education program alone where as the load can be divided with multiple teachers. Single teachers could also argue the ease of working alone with only one decision to be made.

Conclusion: Group differences found between groups for National Quality Program Standards for level of motivation based on average number of students per course taught by agriculture education teacher for standard 1C facilities and equipment. Post hoc test run completed and no statistical difference found within group means.

The one-way ANOVA produced a statistically significant difference based on the average number of students per course for the standard 1C of facilities and equipment. This ANOVA showed a difference found between these groups; 11-20, 21-30, and 31-40. The lab setting is a highlight of the agriculture program. However, these lab facilities and equipment require additional work for an agriculture teacher. Agriculture teachers understand the importance of these experiential lab settings for students even with the additional requirements placed upon them. Teachers appear to be motivated by their facilities and equipment used for labs, but the number of students per course appears to be an area of difference. Teachers could potentially be motivated by their facilities and equipment for a specific class size. Potentially larger classes could lead to decreased teacher motivation due to lack of equipment for all students or the extra stress placed upon teacher to accommodate so many in a lab setting during a class period. Additional research should be conducted to further investigate this issue. The post hoc test completed resulted in no statistical difference within groups.

Conclusion: Open ended response highest factor was based on student centered activities such as growth, success, and providing them with opportunities.

The open-ended response section further validated the previous motivation levels for the National Quality Program Standards. Teachers are in the profession for their students. They are the driving motivator for what they do. The ability to see their students grow, succeed, and providing them opportunities were the highest factors. Student centered activities motivate beginning agriculture teachers.

Recommendations for Practice

Following the review of findings and conclusions of the study, thirteen recommendations for practice were determined. These recommendations align to the objectives and purpose of the study. The first set of recommendations are based on the participant's level of motivation for each National Quality Program Standard and quality indicator. The second set of recommendations are based upon the comparison of personal and program characteristics to level of motivation for each National Quality Program Standard and quality indicator. All recommendations are to serve as potential areas of growth for agricultural educators and state agricultural education staff.

The first set of recommendations begin with the total program. The total program serves as the foundation of the agriculture education program. It defines the agriculture education classroom and sets it apart from any other educational models in the career and technical program. Agriculture education teachers believe in this model and it motivates them in agriculture education. Emphasis should continually be placed upon this model and teachers should continue to stress the importance of it to their students through classroom instruction. Teachers also must work to continually promote and make this model real to their students in their class. This foundation is important to the program and teachers must keep this model a viable part of the program. This could be accomplished through bringing technology into the various portions of the total program. Examples include utilizing educational technology in the classroom and lab, keeping Career Development Events current for students, and utilizing online record keeping software for SAE programs.

Another key feature of the agriculture education program is the opportunity for lab activities. These lab opportunities motivate teachers. Providing teachers with lab areas and proper facilities will only enhance their instruction and ability to teach. Teachers understand the

merit and value of providing students these experiential learning times in these labs. They also value the ability to provide access to labs for all students. Creating lab opportunities will provide teachers and students both an enhanced experience in agriculture education. School systems should work to ensure that all agriculture education classrooms have at least one supportive lab setting for each individual type of agriculture program.

Assessments have become a taboo word in education following the passage of No Child Left Behind. However, agriculture education teachers find motivation in assessing and evaluating their student's growth in their experiential learning settings. Evaluations provide teachers with "data" to see their student's growth. This data may be in the form of an increase in a student's cattle herd or completion of a state proficiency application. Teachers need to develop and practice their evaluation system for these experiential learning programs to track student growth. This system should also work to support students in their completion of FFA degrees and proficiency applications. Information gathered from these evaluations need to be shared with administration, stakeholders, and state staff. A step further would be for state staff to develop a statewide, validated, evaluation system for experiential learning programs. This evaluation system could produce standardized data to utilize for program support. Being able to quantify this information provides numbers to help improve student, teacher, and stakeholder motivation for the agriculture program.

Additionally, teachers understand the importance of meeting local and state standards in relation to the SAE program. The SAE is a signature component of the agriculture program and teachers must continue to stress this to their students. This component also allows teachers the additional pay for extended day and year duties. When considering potential agriculture program growth, emphasis needs to be placed upon the additional funding for agriculture teachers. To

ensure a quality program, agriculture teachers need the extra funding and in turn they run programs that meet local and state standards. This external factor continues to help motivate new teachers as they work with SAE programs and students.

The final component of the total program is the FFA. Teachers are motivated to provide opportunities for ALL students to have the ability to be a member of the FFA. Instruction needs to continue in the agriculture classroom to educate members about this organization and its importance. The National and Georgia FFA need to continue to market the program as open to all students. Georgia legislators could also work to potentially allocate funding for all students enrolled in agriculture courses to receive a paid FFA membership. This would help to remove the financial barrier of membership dues some students may encounter. Meeting this need for all students to be an FFA member, relieves teachers of one stress resulting in higher motivation.

The agriculture program is an in-school program, but it also plays a huge role in the local community. Agriculture education teachers understand they are not alone in their efforts and the importance of being involved with key stakeholders. These stakeholders can provide general and financial support to their program. Teachers need to be allowed time during their teaching schedules to be an active member of the community; have the ability to attend civic club programs during the school day, serve on Chamber of Commerce committees, etc. Allowing teachers to be active in these organizations and visible at events, helps to build their program support along with general school support. The agriculture teacher serves as the face of their agriculture program and school. Teachers also must work to involve their programs in stakeholder-based events; be a part of the local parades, help park cars at the county fair, etc. Helping others in the community can help an agriculture program down the road. This

community support can lead to a teacher's increased motivation; having others to care about their program.

Agriculture education teachers must share their story of their program. Without a strategic marketing plan, this may only be a vision. Teachers must involve chapter officers in this effort or a potential class focused on agriculture communications or marketing. The ability to share with the community the events occurring in your chapter helps to build support. It also allows stakeholders to see how the program is utilizing funding and providing opportunities to students.

Agriculture education teachers obviously have entered the profession for two purposes; agriculture and education. The opportunity to teach about careers available in the AFNR industry produces a great level of motivation within them. Dedicated portions of state curriculum need to be allotted to AFNR career instruction. Also, state and national groups can continue to produce career awareness resources for agriculture education teachers to use in their classrooms. Teachers can also work to provide career opportunities for their students through the development of agriculture career days at school or industry tours.

Advisory committees also serve as an important piece of the agriculture education puzzle. Advisory committees serve as the backbone of the agriculture program by providing direction. This group of selected members should serve as a representative sample of the community. This group provides feedback on the agriculture education program and helps to guide the focus of the program. Teachers should continue to work to develop their advisory committees and utilize their feedback. State staff need to provide an advisory starter kit for new teachers to help them prepare to develop this group and begin their first meetings.

The second set of recommendations focuses on the comparisons of personal and program characteristics in relation to the motivation level for each National Quality Program Standard and quality indicators. The personal characteristic of gender, male and female, produced differences in levels of motivation for the standards relating to curriculum, instruction, facilities/equipment, program design, partnerships, and planning/evaluation. In all of these standard areas, males were higher motivated to complete these tasks than females. This result proves that agriculture education program instruction and development should not be seen as a one size fits all type of format. When hiring, school administration should capitalize and realize the differences both genders bring into the classroom. If a school system has multiple agriculture teacher positions, it may warrant hiring a diversity of teachers based on gender to create a balance within the program.

An additional personal characteristic producing differences was age. Study participants age 23 and older were more motivated than those age 22 and under in curriculum and planning/evaluation. Age and maturity of the teacher in the classroom could play a factor into the reason why the "older" crowd enjoys the instruction and planning piece of the program. Again, when hiring of agriculture educator's, school systems may want to hire diversity in age as well to create a balance within the program.

The number of teachers within a program, single or multiple teachers, also produced differences in curriculum, program design, and planning/evaluation. Teachers coming from a multiple teacher program were more motivated than single teacher programs. Program design as a whole was viewed as a strong motivator by multiple teacher programs. The dynamics of an agriculture program with a single versus multiple teacher are two entirely different entities. A single teacher does it all; classroom/lab instruction, FFA, SAE, community partnerships,

curriculum, and the list can go on. A multiple teacher program has the ability to share these responsibilities and tasks. Multiple teachers also have a support system directly related to their content area daily. In the school setting, this may warrant school systems to consider hiring at least two agriculture teachers if their school size warrants it. It appears that having multiple teachers in the program helps in motivating them in their daily tasks of curriculum, program design, and planning/evaluation.

The final comparison recommendation is based upon the number of students per course in relation to facilities/equipment. Differences were found between the groups of students per course-11 to 20 students, 21 to 30 students, and 31 to 40 students. This information brings to light the fact that facilities and equipment are important in relation to the size of the class one teaches. Potentially, with further research completed one could justify certain facilities and equipment needed to motivate and hopefully retain teachers in their job.

Recommendations for Teacher Preparation

Following the review of findings and conclusions of the study, ten recommendations for teacher preparation were determined. These recommendations align to the objectives and purpose of the study. The recommendations are to serve as potential areas of growth for agricultural education preparation programs and teacher educators.

Agriculture education is becoming predominately female. Agriculture education preparation programs need to work to maintain a balanced faculty including male and female teacher educators. This balance would provide both male and female students a view of agriculture education from each perspective. Female students would also have a female teacher educator to relate to. Course offerings could also be tailored to offer courses for female students.

Examples could include courses focused on women in agriculture that focus on safely handling livestock, fence repair, and more general male focused tasks.

The need for agriculture educators is having people enter the field from a route other than the traditional preparation program. Education preparation programs must realize this fact and update their program to remain viable. This can be accomplished by providing a one-year teacher certification program utilizing online resources for working students to complete. Also, preparation programs need to help bridge the connection for students from program completion to job entry. Colleges and universities need to remain an integral piece and support system for their new teachers in the field. This can be completed by creating a first year teacher academy for graduated students in their first year of teaching. This group could work to meet throughout the school year to provide a collective group meeting for discussion and continued education. Another avenue would be for colleges and universities to be a key provider of professional development courses for teachers. Remaining an active component in the agriculture education arena is important to future educators, current educators, and the life of the education preparation program.

Utilizing online certification could also help to open agriculture education certification to anyone, anywhere, and at any age. Almost half of the new teachers in this study were over 23 years of age and entered through a nontraditional route. Meeting these students where they are to get them certified must be done. Removing the barriers of on campus attendance and allowing flexibility in class schedules could help to boost traditional certification enrollment.

Teacher preparation programs need to continue to place an emphasis and instruction to future teachers on the total program and development of laboratory areas. Teacher educators should model the use of the total program in preparation programs. Course time should also be

spent on taking student teachers to experience multiple laboratory offerings in current agriculture programs. In curriculum and program development courses, teacher educators should create assignments for students to consider their future lab settings. Students should leave the course with a potential lab setting plan, tool/supply inventory list, and projected budget for maintaining lab. This information then can be utilized in their future teaching locations for supply orders or to develop their own lab. Also, in relation to labs/facilities, students should gain experience in teaching labs of various sizes. Early field experiences could have students teach labs from ten to forty students for them to get a real feel of a potential lab setting they could encounter in their future class setting. Helping students to work through the challenge of teaching labs will help them feel better prepared, confident, and motivated to teach in their own program.

Community development courses must take time to focus on the role of the agriculture educator and agriculture program in the community. Students receive instruction on an advisory committee and its purpose. Current agriculture educators should be invited to be a guest speaker in this course and provide personal input and experiences into developing a committee. Also, students should be introduced to possible stakeholders in the community through completion of a community review assignment. Another important experience would be for students to participate in an actual advisory committee meeting held in a surrounding county close to college/university.

To equip future educators for the agriculture classroom, students need to be introduced to agriculture careers during their course work. This could include scheduling industry tours and developing campus wide agriculture career days. Also, the agriculture education major course work should include a diverse array of agriculture content courses. Enabling students to

experience as much agriculture content courses as possible will provide them with information for teaching their own students about future career opportunities within the industry.

The agriculture program is continuing to evolve to meet the needs of today's students. This change was reflected in 1988 when FFA changed its name to the National FFA Organization. The FFA understood that students were no longer mainly coming from the farm. This being the case, leadership and personal development have become an emerging part of the FFA. Teacher preparation programs must also develop courses to educate students on leadership and personal development.

The next recommendation is focused on marketing. Teachers understand the importance of having a program marketing plan, but it was the least important motivator among the seven quality standards. Marketing can be just another job on an agriculture education teacher's to-do list. Teacher preparation programs must provide instruction to show the ease of marketing and provide students a marketing packet of materials prior to leaving program. The focus of the marketing should also be based on technology today using social media.

In relation to the differences found in age, curriculum and planning/evaluation were areas of interest. Both of these components are key pieces to the success of an agriculture program. Educator preparation programs should continue instruction in curriculum and planning/evaluation during courses to ensure whatever age a student is they are prepared to handle these tasks. According to findings of this study, the older student will be more motivated and inclined to enjoy these areas of work. Within an individual classroom, educator preparation programs could create assignments that allows students of various age groups to work together to create curriculum and planning materials for future use in their own programs. Also, bringing in

current agriculture educators at various age levels could bring different perspectives of these tasks to the students in the preparation programs.

The final findings relate to the number of teachers in the program in relation to curriculum, program design, and planning/evaluation. As a preparation program, experiences must be created for students to gain the feeling of working as a single teacher versus multiple teacher program. Allowing students this experience will help guide them in their own programs, whether it be a single teacher or multiple teacher program. Also, visiting and bringing in current agriculture educators in both of these program settings to allow them to discuss their own personal experiences will help to provide students an even better perspective of the type of program they wish to pursue.

Recommendations for Future Research

Following the review of findings and conclusions of the study, seven recommendations for future research were determined. These recommendations align to the objectives and purpose of the study. The recommendations are to serve as potential areas of research for continued growth and development of agricultural education.

Females are dominating the population of beginning agriculture teachers in Georgia. The agriculture education classroom is also changing. Further research should be conducted to determine why females are entering the agriculture education profession. Also, research could be conducted to track these beginning females in their teaching journey to see any barriers they face in the profession and their retention data.

Another area of research should focus on the differences between and male and female agriculture teachers. These differences could look at the type of courses each teach, FFA

enrollment and participation, and overall program quality based National Quality Program Standards. This information could help determine possible areas of strength and weakness for each gender. These strengths and weaknesses could be building blocks for educator preparation programs.

Research should also be conducted with male teachers to determine what motivates them more in the areas of curriculum, instruction, facilities/equipment, partnerships, and planning/evaluation. It is interesting to see that more females are entering the profession, but males seem to be more motivated by their job. Further research should be conducted on gender differences in agriculture education.

Some beginning agriculture teachers are entering the profession through alternate routes. Further research should be conducted to determine why teachers are entering through these professions. This information could help teacher preparation programs determine how they could better serve this population of potential students. Additional research could be completed to track these alternative certification teachers to see their effectiveness as an agriculture educator in relation to traditional certified teachers. This data could provide support for or against current educator preparation programs.

Further research should be completed to determine the effect of teachers working in a single versus a multiple teacher program. Being able to have insight into this area could possibly help to restructure agriculture programs; teachers could be more successful potentially if they were sent in pairs to support each other. More successful teachers could mean improved motivation for profession and less attrition. Additionally, the number of students per course should be researched. The structure of the agriculture classroom with hands-on learning labs makes the number of students per course an important part of a successful classroom.

Additional research should also be completed in relation to a teacher's specific motivation for total program components only. This study revealed the importance of this model to beginning teacher's motivation. Also, experiential learning opportunities and facilities emerged as high motivators for beginning teachers. Research should be conducted to determine which specific facilities and labs are most beneficial for the various agricultural program settings; urban, rural, and suburban. Identification of these lab types could be useful by new teachers to advocate for the building of such labs along with provide teacher educators direction in preparing future teachers to teach in these settings.

The next recommendation focuses on marketing. This study revealed that teachers know the importance of implementing a marketing plan, but also found that it is their least motivating factor. Research should be conducted to determine specifically why it is the least motivating and ways teacher educators and state staff can help teachers with this task.

Another area for future research should focus on the age of agriculture educators as beginning agriculture educators. Further research could help determine if a slightly older teacher would be more motivated and potentially remain in the profession of agriculture education. This fact could lead to the redevelopment of preparation programs; maybe agriculture education majors should student teach a whole year to gain one more year of maturity and experiences. Stepping into the classroom is a daunting task at any age but being only a few years older than some of your students in a high school classroom adds an even greater challenge.

The final recommendation focuses on the study design. Cronbach alpha for standard five was relatively low. To improve this, it is recommended to expand the number of quality indicators for this standard. Also, the survey instrument should be broken down into a smaller instrument. Utilizing the seven National Quality Program Standards in one instrument proved to

be a lengthy instrument. Possibly breaking the survey instrument into two parts and administering at two different times would help to reduce participant participation. Additionally, it is recommended that this study be repeated with sequential groups of new teachers in Georgia to track motivation levels of new teachers over the years. Study could also be replicated in other states to determine if certain motivation levels is characterized by regional dynamics or other factors.

Summary

New beginning agriculture teachers enter the classroom to accomplish the task of running a successful agriculture education program. Some have recently graduated from their traditional preparatory post-secondary programs and some may have entered the profession through an alternative path. No matter the way a teacher has entered the profession, they have accepted the challenge. This challenge can be a daunting task with the sometimes never ending to do list, the extra hours, and weekend work. However, something has brought these individuals to the field of agriculture education. The National Strategic Plan and Action Agenda for Agricultural Education Reinventing Agricultural Education for the Year 2020, presented in 2000, first goal was to ensure "an abundance of highly motivated, well-educated teachers in all disciplines, pre-kindergarten through adult, providing agriculture, food, fiber and natural resources systems education" (The National Council for Agricultural Education, 2000, p. 4). The need for agriculture educators remains with 769.5 open agriculture teaching positions in 2016 with 492 of these teachers leaving the profession for other opportunities (National Association of Agriculture Educators, 2016). To attempt to determine why agriculture teachers are in short demand and not remaining in the profession, some current research has taken the negative connotation to answer the question why teachers are leaving (Lemons et al, 2015; Kelsey, 2016). A positive look into

the profession has also taken place through research focusing on self-efficacy of agriculture teachers in relation to personal and programmatic variables, tools and equipment, school culture, coursework, work life balance, and much more (Blackburn, Bunch, & Haynes, 2017; Hasselquist, Herndon, & Kitchel, 2017; McCubbins, Wells, Anderson, & Paulsen, 2017; McKim & Velez, 2017; McKim, Velez, & Clement, 2017; Swan, Wolf, & Cano, 2011; Wolf, 2011).

Through the application of the process motivation theory, that looks at the external factors to see how behavior and motivation are created within an individual, this research looked to determine what activities or duties motivate beginning Georgia agriculture education teachers (Stotz & Bolger, 2017, p. 1.16). The standard activities of an agriculture teacher were summarized using the National Quality Program Standards produced by the National Council for Agricultural Education. These standards were the "results of a need to provide a consistent delivery of high-quality agricultural education programs" (NCAE, 2016). A successful agriculture program should align to each of these standards and were utilized as the assessment measures for this study.

The findings of this study presented data on personal and program characteristics of beginning agriculture teachers, determined their level of motivation for each National Quality Program Standard and quality indicator, motivation level for teaching agriculture based upon overall ranking of seven standards, and several comparisons in relation to personal and program characteristics based on their motivation level for each standard. The data analysis resulted in fifteen conclusions. These results were further discussed, and recommendations made for practice, teacher preparation, and future research. The findings, conclusions, and recommendations for practice had thirteen primary themes including the total program, facilities and equipment, evaluation of experiential learning, meeting standards, student membership in

FFA, involvement with key stakeholders, implementing a marketing plan, instructing students in AFNR careers, advisory committees, and differences based on personal and program characteristics. The findings, conclusions, and recommendations for teacher preparation had ten primary themes including gender differences, certification routes, educator age, total program, community development, agriculture content and career awareness, leadership and the FFA, and marketing. The findings, conclusions, and recommendations for future research had seven primary themes including gender differences, certification routes, program types, facilities and equipment, total program, marketing, teacher age, and study design.

The findings of this study provided some insight into the motivation level for beginning Georgia agriculture education teachers as related to their daily tasks and duties as presented through the National Quality Program Standards of a successful program. This information allows current teachers, state staff, and teacher educators the ability to capitalize on areas of motivation to help teachers enjoy the profession and improve their practices. The agriculture education classroom must continually evolve and the same is true for educator preparation programs. Both settings are geared to meeting the needs of students and providing them with the best learning experience possible. Utilizing this research will allow the agriculture education profession to view the positive aspects of the profession and use the highly motivating activities to recruit and maintain teachers in the profession. This task is highly important as the need for agriculture education teachers has never been greater.

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APPENDIX 1

IRB APPROVAL

Sent: Wednesday, September 6, 2017 9:30 AM
To: skm0011@tigermail.auburn.edu
Cc: James Lindner <jrl0039@auburn.edu>
Subject: Approval, Exempt Protocol #17-301 EX 1709

*Use IRB**submit**@auburn.edu for protocol-related submissions and IRBadmin@auburn.edu for questions and information.*

The IRB only accepts forms posted at https://cws.auburn.edu/vpr/compliance/humansubjects/?Forms and submitted electronically.

Dear Sallie,

Your protocol entitled " Beginning Georgia Agriculture Teachers Motivation for Teaching Agriculture" has been approved by the IRB as "Exempt" under federal regulation 45 CFR 46.101(b)(2).

Official notice:

This e-mail serves as official notice that your protocol has been approved. A formal approval letter will not be sent unless you notify us that you need one. By accepting this approval, you also accept your responsibilities associated with this approval. Details of your responsibilities are attached. Please print and retain.

Electronic Information Letter:

A copy of your approved protocol is attached. However you still need *to add the following IRB approval information to your information letter(s):* **"The Auburn University Institutional Review Board has approved this document for use from September 05, 2017 to September 04, 2020. Protocol #17-301 EX 1709"**

You must use the updated document(s) to consent participants. *Please forward the actual electronic letter(s) with a live link so that we may print a final copy for our files.*

-

Expiration – Approval for three year period:

Your protocol will expire on **September 04, 2020.** About three weeks before that time you will need to submit a renewal request.

When you have completed all research activities, have no plans to collect additional data and have destroyed all identifiable information as approved by the IRB, please notify this office via e-mail. A final report is no longer required for Exempt protocols.

If you have any questions, please let us know.

Best wishes for success with your research!

IRB Admin

Office of Research Compliance

115 Ramsay Hall

APPENDIX II
EMAIL INVITATION FOR ONLINE SURVEY

3/16/2018 Motivation for Teaching Ag: Survey Update

Motivation for Teaching Ag: Survey Update

Sallie McHugh

Your assistance is needed in completing an important AgEd survey shortly. Thank you to those who have responded. *Please respond to this email if you have completed survey in order to update completion list.* If you have not had a chance yet, please take a few minutes to complete the survey at https://survey.az1.qualtrics.com/jfe/form/SV_3UIynumQga7mac5

As an Ag teacher myself, I know your schedule is busy. To assist, I hope to make contact with you concerning the survey. I will call sometime the week of November 13-17 or you can request a call back to receive survey if preferred.

Don't forget you will be entered into a drawing for a chance to win $50!

Please feel free to contact Sallie McHugh for more details or with questions on this research.

Thank you for your time and participation!

Sallie McHugh
Graduate Student
Auburn University
sallieemchugh@gmail.com

3/16/2018 Motivation for Teaching Ag: Survey Reminder

Motivation for Teaching Ag: Survey Reminder

Sallie McHugh

Information_letter.pdf

If you have not had a chance yet, please take a few minutes to complete survey! I know time is precious, but your assistance is greatly appreciated. Feel free to access survey on your mobile phone. For your time you are entered into a chance to win $50!

Beginning Teacher Motivation Survey Link https://survey.az1.qualtrics.com/jfe/form/SV_3UIynumQga7mac5

Beginning Georgia Agriculture Teachers Motivation For Teaching Agriculture

You are invited to participate in a study that looks to measure your motivation for teaching agriculture by assessing your motivation for completing skills and activities expected in the role of an agriculture teacher. You have been identified as a beginning agriculture teacher in Georgia, which means you have less than one year agriculture education teaching experience. We ask you to review the attached information letter and complete the attached questionnaire (click link to access survey). The questionnaire will take approximately 15 minutes to complete. Please remember your participation is voluntary. You will not be compensated for your participation, but will be entered into a chance to win $50 cash. Participation involves minimal risk. Information obtained from participants will be kept confidential and no individual responses will be reported.

Beginning Teacher Motivation Survey Link https://survey.az1.qualtrics.com/jfe/form/SV_3UIynumQga7mac5

Please feel free to contact Sallie McHugh for more details or with questions on this research.

Thank you for your time and participation!

Sallie McHugh
Graduate Student
Auburn University
sallieemchugh@gmail.com

Reply all | Delete Junk |

Motivation for Teaching Ag: Invitation to participate

SM Sallie McHugh
[illegible]
[illegible]

Reply all |

Sent Items

Good morning,

I am Sallie McHugh, a graduate student in the Department of Curriculum and Teaching at Auburn University. I would like to invite you to participate in my research study that looks to measure your current motivation for teaching agriculture, based upon the jobs and duties of an agriculture teacher. In order to assess this, we will measure your motivation for completing skills and activities expected in the role of an agriculture teacher based upon the National Program Quality Standards set forth by the National Agricultural [illegible]. You may participate in this study if you are a first year agriculture education teacher (less than one year teaching experience in agriculture education).

As a participant, you will be asked to complete a survey through the online platform, Qualtrics. A survey link will be sent to you in a later email. The survey takes about 15 minutes to complete.

For your participation in the study, you will be entered into a chance to win a $50 cash prize.

If you are willing to participate in this study, please take the time to complete the survey instrument. If you have questions, contact me at [illegible] or you may contact my advisor, Dr. Lindner, at jrl0039@auburn.edu.

Thank you for your consideration,
Sallie McHugh

Reply all | Delete Junk |

Motivation for Teaching Ag: Survey Link

SM Sallie McHugh
[illegible]
[illegible]

Reply all |

Sent Items

Information Letter.pdf

Show all 1 attachments · Download · Save to OneDrive - Auburn University

Beginning Georgia Agriculture Teachers Motivation For Teaching Agriculture

You are invited to participate in a study that looks to measure your motivation for teaching agriculture by assessing your motivation for completing skills and activities expected in the role of an agriculture teacher. You have been identified as a beginning agriculture teacher in Georgia, which means you have less than one year agriculture education teaching experiance. We ask you to review the attached information letter and complete the attached questionnaire (click link to access survey). The questionnaire will take approximately 15 minutes to complete. Please remember your participation is voluntary. You will not be compensated for your participation, but will be entered into a chance to win $50 cash. Participation involves minimal risk. Information obtained from participants will be kept confidential and no individual responses will be reported.
Beginning Teacher Motivation Survey Link- https://survey.az1.qualtrics.com/jfe/form/SV_3UlynumOga7mac5

Please feel free to contact Sallie McHugh for more details or with questions on this research.

Thank you for your time and participation!

Sallie McHugh
Graduate Student
Auburn University
salliemchugh@gmail.com

Reply all | Delete Junk | ...

Motivation for Teaching Ag: Please respond

SM Sallie McHugh

Reply all |

Good afternoon!

Your assistance is needed in completing an important Ag Education research study concerning beginning teacher's motivation for teaching agriculture. Thank you to those who have responded. ***Please respond to this email if you have completed survey in order to update completion list.***

If you have not had a chance yet, please take a few minutes to complete the survey at https://auburn.az1.qualtrics.com/jfe/form/SV_8JymumQgg7mqc5

As an Ag teacher myself, I know your schedule is busy. To assist, I hope to make contact with you concerning the survey. I will call sometime the week of November 13-17 or you can request a mailed paper survey if preferred.

Don't forget you will be entered into a drawing for a chance to win **$50**! Extra shopping money for the holidays!

Please feel free to contact Sallie McHugh for more details or with questions on this research. Thank you for your time and participation!

Sallie McHugh
Graduate Student
Auburn University
salliemchugh@gmail.com

APPENDIX III
APPROVED INFORMATION LETTER

The Auburn University Institutional Review Board has approved this document for use from September 05, 2017 to September 04, 2020. Protocol #17-301 EX 1709

INFORMATION LETTER

For a Research Study entitled

"Beginning Georgia Agriculture Teachers Motivation for Teaching Agriculture"

You are invited to participate in a research study that looks to measure your motivation for teaching agriculture by assessing your motivation for completing skills and activities expected in the role of an agriculture teacher. To accomplish this purpose, the following research objectives will be used to guide this study:

- Determine demographic characteristics of beginning Georgia agriculture educators.
- Determine beginning teachers perceived level of motivation for each National Program Quality Program Standard and quality indicator.
- Identify teachers perceived motivation level for teaching based upon overall ranking of seven National Quality Program Standards.
- Identify any additional teaching activities associated with teaching agriculture that motivates teachers to remain in the profession.

The study is being conducted by Sallie McHugh, Ph.D. student in the Auburn University Department of Curriculum and Teaching. You are invited to participate because you are a Georgia Agriculture Education certified teacher or provisional teacher in Agricultural Education, currently employed in a Georgia school, currently serving as FFA advisor for the local program, and are age 19 or older.

What will be involved if you participate? First, your participation is completely voluntary. If you decide to participate in this research study, you will be asked to complete a survey. Your total time commitment will be approximately 15 minutes. Your privacy will be protected. Any information obtained in connection with this study will remain anonymous.

Are there any risks or discomforts? The risks associated with participating in this study are minimal due to information being obtained in an anonymous manner. Participants will be asked to provide approximately fifteen minutes of their time to complete survey instrument.

Are there any benefits to yourself or others? If you participate in this study, you can expect to help shape future agriculture education teacher preparation programs and help shape future recruitment programs in order to fill agriculture teacher positions. We/I cannot promise you that you will receive any or all of the benefits described.

Will you receive compensation for participating? To thank you for your time you will be offered a chance to win $50 cash.

Are there any costs? If you decide to participate, you will not be responsible for any cost.

If you change your mind about participating, you can withdraw at any time during the study by stopping completion of survey instrument. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University, the Department of Curriculum and Teaching.

Your privacy will be protected. Any information obtained in connection with this study will remain anonymous. Information obtained through your participation will be used to fulfill an educational requirement and may be published in professional Agriculture Education journals and shared at professional conferences.

If you have questions about this study, please contact Sallie McHugh at salliemchugh@gmail.com or at 229-326-0285. A copy of this document will be given to you to keep.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

Sallie K. McHugh 8/8/17

Investigator's Signature Date

APPENDIX IV
RESEARCH
QUESTIONNAIRE

Beginning Georgia Agriculture Teachers Motivation For Teaching Agriculture

You are invited to participate in a study that looks to measure your motivation for teaching agriculture by assessing your motivation for completing skills and activities expected in the role of an agriculture teacher. You have been identified as a beginning agriculture teacher in Georgia, which means you have less than one-year agriculture education teaching experience. We ask you to review the attached informed consent letter and complete the attached questionnaire. The questionnaire will take approximately 15 minutes to complete. Please remember your participation is voluntary. You will not be compensated for your participation, but will be entered into a chance to win a $50 cash. Participation involves minimal risk. Information obtained from participants will be kept confidential and no individual responses will be reported.

Please feel free to contact Sallie McHugh for more details or with questions on this research.

Thank you for your time and participation!

Sallie McHugh
Graduate Student
Auburn University
salliemchugh@gmail.com

If you agree to participate, please select agree to continue.

- ❑ **I agree to participate (I have read the informed consent letter and agree to participation in study)**
- ❑ **I do not wish to participate**

Survey Overview/Directions

The purpose of this study is to determine the skills and activities that motivate beginning teachers to begin teaching, remain in the profession, and continue their service in agriculture education.

These activities are divided into seven categories of standard areas based upon the National Quality Program Standards for Agriculture, Food, and Natural Resource Education produced by the National Council for Agriculture Education. The standard areas include:

1. Program Design and Instruction
   a. Curriculum and program design
   b. Instruction
   c. Facilities and equipment
   d. Assessment
2. Experiential, project, and work-based learning through SAE
3. Leadership and personal development through FFA
4. School and community partnerships
5. Marketing
6. Certified agriculture teachers and professional growth
7. Program planning and evaluation

You will be asked to determine your degree of motivation for each specific activity or skill provided in each category. For example, if you feel the activity is a strong motivator for you teaching agriculture you would select the score of 4=strong motivator. If you feel the activity is not a motivator for you teaching agriculture, you would select 0=No motivation.

Please read each construct carefully and follow the directions as written. Thank you for your time and for your service in agricultural education!

STANDARD 1A: PROGRAM DESIGN AND INSTRUCTION – CURRICULUM & PROGRAM DESIGN

Standard Statement: A standards-based curriculum in agriculture, food and natural resource education is delivered through programs of study that incorporates classroom and laboratory instruction, work-based learning and student leadership & personal development.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Produce a Program of Study (POS), reflecting the needs of the community, has been developed in accordance with state requirements.
0	1	2	3	4	2. Establish courses in the Program of Study (POS) that are organized logically and sequentially from introductory to advanced levels.
0	1	2	3	4	3. Balance technical content that is aligned with core academic content standards.
0	1	2	3	4	4. Implement a Program of Study (POS) that allows students to gain post-secondary education credits through dual or concurrent enrollment programs or other means.
0	1	2	3	4	5. Develop a Program of Study (POS) that includes knowledge and skill development through a balance of the three components of agriculture, food, and natural resource education (i.e., classroom and laboratory instruction; experiential, project, and work-based learning through SAE; and leadership and personal development through FFA).

STANDARD 1B: PROGRAM DESIGN & INSTRUCTION – INSTRUCTION

Standard Statement: Programs promote academic achievement and technical skill attainment of all students.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Building classroom and laboratory instruction that integrates and/or is supplemented by experiential, project, and work based learning through SAE and leadership and personal development through FFA.
0	1	2	3	4	2. Design Instruction that integrates the application of core academic standards.
0	1	2	3	4	3. Demonstrate an understanding that learning and developmental patterns vary among individuals, that learners bring unique individual differences to the learning process, and that learners need supportive and safe learning environments to thrive.
0	1	2	3	4	4. Demonstrate a deep and flexible understanding of the Agriculture, Food, and Natural Resource content area and is able to draw upon content knowledge as they work with learners to access information, apply knowledge in real world settings, and address meaningful issues to assure learner mastery of the content.
0	1	2	3	4	5. Understand and integrate assessment, planning, and instructional strategies in coordinated and engaging ways.
0	1	2	3	4	6. Engage in meaningful and intensive professional learning and self-renewal by regularly examining practice through ongoing study, self-reflection, and collaboration.

STANDARD 1C: PROGRAM DESIGN AND INSTRUCTION – FACILITIES AND EQUIPMENT

Standard Statement: The facilities and equipment support implementation of the program and curriculum by providing all students opportunities for the development and application of knowledge and skills.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Being provided a facility size and layout that provides for effective delivery of all Programs of Study (POS) offered.
0	1	2	3	4	2. Ensuring that facility is in compliance with existing local, state, and federal safety and health standards.
0	1	2	3	4	3. Providing training and evaluation so individuals using the facility create a safe working environment.
0	1	2	3	4	4. Manage a facility that is clean, organized, and maintained to provide an environment conducive to learning.
0	1	2	3	4	5. Maintaining a facility designed to be accessible and accommodating to all students.
0	1	2	3	4	6. Maintain storage space that is sufficiently sized and organized for both student and teacher materials, supplies, and equipment.
0	1	2	3	4	7. Monitor an inventory of equipment, tools, consumable items, and instructional technology is completed and includes a plan for new purchases and replacements.
0	1	2	3	4	8. Ensure equipment, tools, and instructional technology are safe, adequately maintained, and current to industry standards.

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	9. Being provided a quantity of tools, equipment, and consumable supplies adequate for equipping all students enrolled at all times.
0	1	2	3	4	10. Being provided equipment, tools, and instructional technology that is current, available, and used effectively for delivering instruction.

STANDARD 1D: PROGRAM DESIGN AND INSTRUCTION – ASSESSMENT

Standard Statement: Programs utilize multiple methods to assess student learning that illustrates academic achievement and skill development.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Produce academic performance that is evaluated through authentic assessments relevant to the Program of Study (POS).
0	1	2	3	4	2. Produce technical performance is evaluated through authentic assessments relevant to the Program of Study (POS).
0	1	2	3	4	3. Evaluating student growth continually as it relates to their experiential, project, and work-based learning program through SAE.
0	1	2	3	4	4. Reviewing student documents to measure their knowledge and skill attainment in the Program of Study (POS) through a cumulative file or portfolio.
0	1	2	3	4	5. Generating a program that demonstrates grading procedures that incorporate all three components of agriculture, food, and natural resource education (e.g., classroom and laboratory instruction; experiential, project, and work-based learning through SAE; and leadership and personal development through FFA).

STANDARD 2: EXPERIENTIAL, PROJECT, AND WORK-BASED LEARNING THROUGH SAE

Standard Statement: Student learning (or instruction) is enhanced through continuous experiential learning (SAE).

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Engineering an Exploratory SAE and Career Plan of Study for all students.
0	1	2	3	4	2. Producing SAE programs aligned to agriculture food, and natural resource (AFNR) pathways and local agriculture, food, and natural resource education curriculum standards.
0	1	2	3	4	3. Construct SAE programs assessed by measuring student growth against a relevant set of career-based skills, knowledge, and competencies.
0	1	2	3	4	4. Molding SAE programs that are student-planned and based on their Career Plan of Study.
0	1	2	3	4	5. Creating SAE documentation for students to maintain accurate records to meet state and local requirements.
0	1	2	3	4	6. Meeting local and state expectations for providing direct supervision of and guidance for each student's SAE.
0	1	2	3	4	7. Generating SAE programs documents and agreements to be shared between the student and adult supervisor(s).

STANDARD 3: LEADERSHIP AND PERSONAL DEVELOPMENT THROUGH FFA

Standard Statement: All students participate in intra-curricular leadership and personal development programs and activities.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Arranging for all students enrolled in the agriculture, food, and natural resource education program to have the opportunity to be a member of the FFA.
0	1	2	3	4	2. Helping students build a progressive leadership and personal development plan.
0	1	2	3	4	3. Creating opportunities for all students to participate in meaningful leadership and personal development activities in each component of agriculture, food, and natural resource education (i.e., classroom and laboratory instruction; experiential, project, and work-based learning through SAE; and leadership and personal development through FFA).
0	1	2	3	4	4. Ensure the FFA Chapter constitution and bylaws are up-to-date and approved by chapter members.
0	1	2	3	4	5. Guide and involve FFA members in the planning and implementation of a Program of Activities (POA).
0	1	2	3	4	6. Supervising regularly scheduled FFA chapter meetings.
0	1	2	3	4	7. Develop an awards recognition program planned and conducted by FFA members.
0	1	2	3	4	8. Develop an FFA Chapter budget, which provides the financial resources to support the Program of Activities (POA).

STANDARD 4: SCHOOL & COMMUNITY PARTNERSHIPS

Standard Statement: School and community partners are engaged in developing and supporting a quality program.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Keep key stakeholders regularly informed regarding the goals, objectives, activities, and accomplishments of the agriculture, food, and natural resource education program.
0	1	2	3	4	2. Engage key stakeholders with the agriculture, food, and natural resource education program.
0	1	2	3	4	3. Recognizing key stakeholders for their support of the agriculture, food, and natural resource education program.
0	1	2	3	4	4. Participate in key stakeholder activities.

STANDARD 5: MARKETING

Standard Statement: Key stakeholders are continually asked, involved, recognized, and informed about all components of the integrated program.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Implement a strategic marketing effort with pieces being implemented by the appropriate stakeholders.
0	1	2	3	4	2. Constructing a recruitment and retention plan that is yielding steady or increasing student enrollment.

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	3. Utilizing relevant agriculture, food, and natural resource education program data for marketing and communication purposes.

STANDARD 6: CERTIFIED AGRICULTURE TEACHERS AND PROFESSIONAL GROWTH

Standard Statement: Competent and technically certified agriculture, food and natural resource teachers provide the core of the program.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Maintaining state certification to teach agriculture, food, and natural resource education.
0	1	2	3	4	2. Holding a contract that includes adequate time and compensation to meet the local and state requirements of a comprehensive agriculture, food, and natural resource education program.
0	1	2	3	4	3. Serving as a FFA advisor that is a certified agriculture, food, and natural resource teacher(s).
0	1	2	3	4	4. Participating in state and national professional agriculture, food, and natural resource education associations.
0	1	2	3	4	5. Advocating for agriculture, food, and natural resource education as a career opportunity.
0	1	2	3	4	6. Contributing to the technical and pedagogical (instructional) knowledge base of the profession.

STANDARD 7: PROGRAM PLANNING AND EVALUATION

Standard Statement: A system of needs assessment and evaluation provides information necessary for continual program development and improvement.

QUALITY INDICATORS LEVEL OF PERFORMANCE

Level of Motivation					
Not a motivator	Somewhat not a motivator	Neither	Somewhat of a motivator	Strong motivator	
0	1	2	3	4	1. Collecting relevant agriculture, food, and natural resource education program data and reporting to key stakeholders and other entities as determined by local and state requirements.
0	1	2	3	4	2. Surveying key stakeholders on their expectations and current assessment of program quality and the success of students.
0	1	2	3	4	3. Maintaining and utilizing a representative (reflective of the agriculture, food, and natural resource populations and local community) advisory committee for the agriculture, food, and natural resource program authorized by the local board of education meets regularly to advise program direction and development.
0	1	2	3	4	4. Launching a five year strategic plan addressing the seven standards of the National Quality Program Standards document is created and implemented based on performance data, key stakeholder survey, and advisory committee input.
0	1	2	3	4	5. Implementing an agriculture, food, and natural resource program budget that provides the financial resources to support the current and planned needs of the program.

What additional activities associated with teaching agriculture motivates you to remain in the profession? Please list.

Please rank the following program standards from most important to least important in relation to your motivation for teaching by numbering them 1 to 7. Rank MOST IMPORTANT FIRST (#1).

- ❑ Program Design and Instruction (Includes Curriculum and Program Design, Instruction, Facilities and Equipment, and Assessment)
- ❑ Experiential, project, and work-based learning through SAE
- ❑ Leadership and personal development through FFA
- ❑ School and community partnerships
- ❑ Marketing
- ❑ Certified agriculture teachers and professional growth
- ❑ Program planning and evaluation

Gender- Please select

- ❑ Male
- ❑ Female
- ❑ I choose not to respond

Age _____

What is the total number of agricultural education teachers at your school?

_____

What is the total number of students in your school?

_____

What is the average number of courses you teach per day?

_____

What is the average number of students you have per course?

- ❑ 1-10
- ❑ 11-20

- ❑ 21-30
- ❑ 31-40

I teach students at the ___ level (please check all that apply).

- ❑ Elementary
- ❑ Middle School
- ❑ High School

What is the highest degree that you have earned?

- ❑ Bachelor of Science
- ❑ Masters of Science
- ❑ Specialist of Science
- ❑ Ph.D.

Which statement best describes your teacher preparation?

- ❑ Undergraduate with teacher certification
- ❑ Graduate with teacher certification
- ❑ Alternative teacher certification
- ❑ Other

Years teaching experience (agriculture or other field)

- ❑ Less than one year
- ❑ 1-5
- ❑ 6-10
- ❑ 11-15
- ❑ 16-20
- ❑ 21-25
- ❑ 26-30
- ❑ 30 or more

Source: Survey instrument was constructed based upon program quality indicators created by the National Council for Agriculture Education within the National Quality Program Standards for Agriculture, Food, and Natural Resource Education 2016.

APPENDIX V
NATIONAL QUALITY PROGRAM STANDARDS USE APPROVAL

Gmail Sallie McHugh <sallierchugh@gmail.com>

RE: National Program Quality Standards
1 message

Womochil, Michael <Michael.Womochil@coes.edu> Mon, Jun 26, 2017 at 12:08 PM
To: Sallie McHugh <skm0011@tigermail.auburn.edu>

Sallie,

This looks like a good study that introduces new teachers to the potential for program growth provided by the NQPS. You can proceed with the research utilizing the NPQS tool.

Mike

From: Sallie McHugh [mailto:skm0011@tigermail.auburn.edu]
Sent: Monday, June 26, 2017 10:02 AM
To: Womochil, Michael
Subject: National Program Quality Standards

Mr. Womochil,

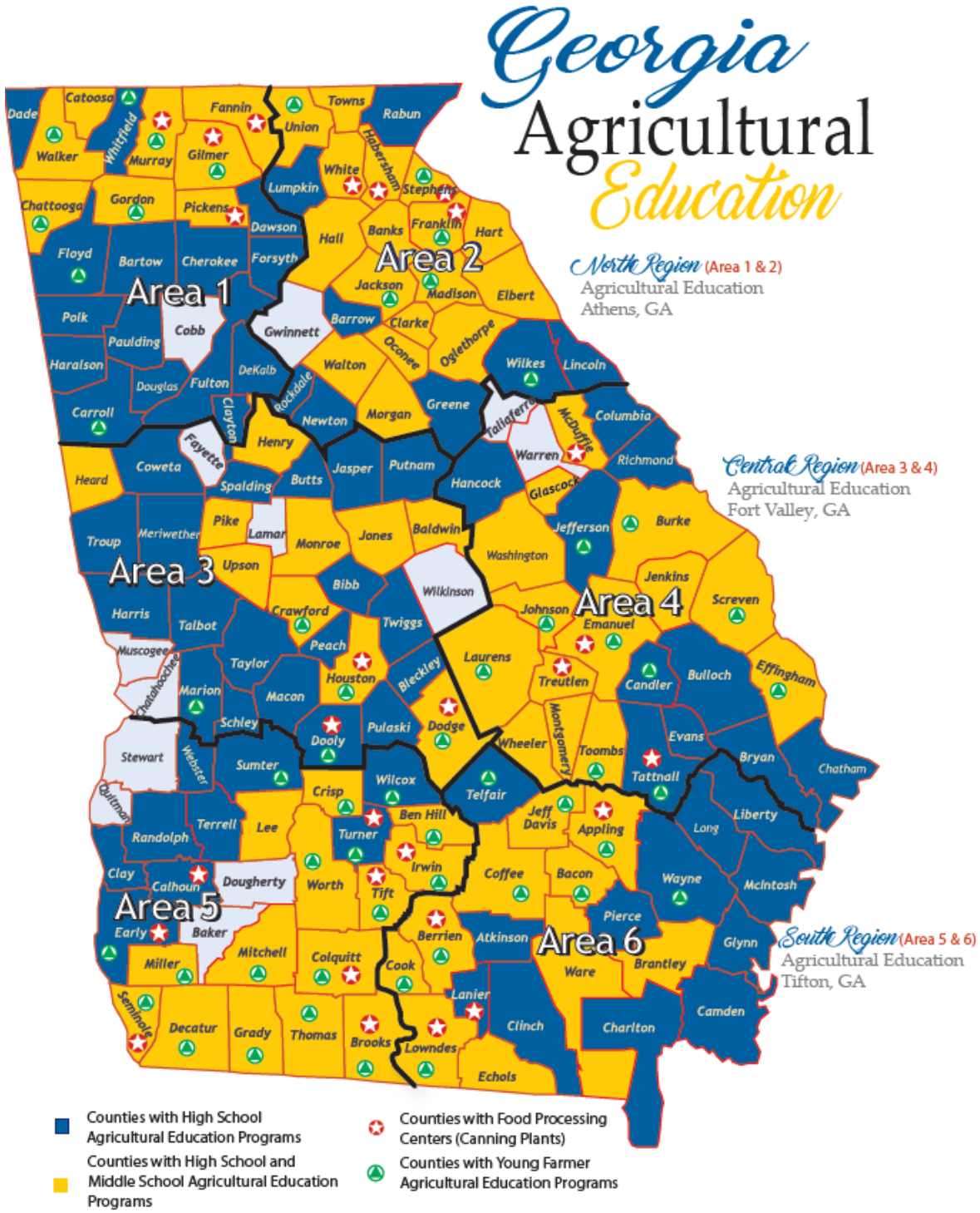
I am a current graduate student at Auburn University and I am interested in conducting a study structured around the National Program Quality Standards that you and your committee created. I am looking to survey beginning agriculture teachers in Georgia and determine their motivations for beginning a career in agriculture education based upon the program quality standard indicators from the National Standards publication. I am writing to ask permission to use and provide reference to these standards within my survey instrument and dissertation. I have included a rough draft of my instrument for you to review. I took each quality indicator and changed the verbage to read into an actual task for completion by teachers. Please let me know your thoughts.

Thank you,

Sallie McHugh

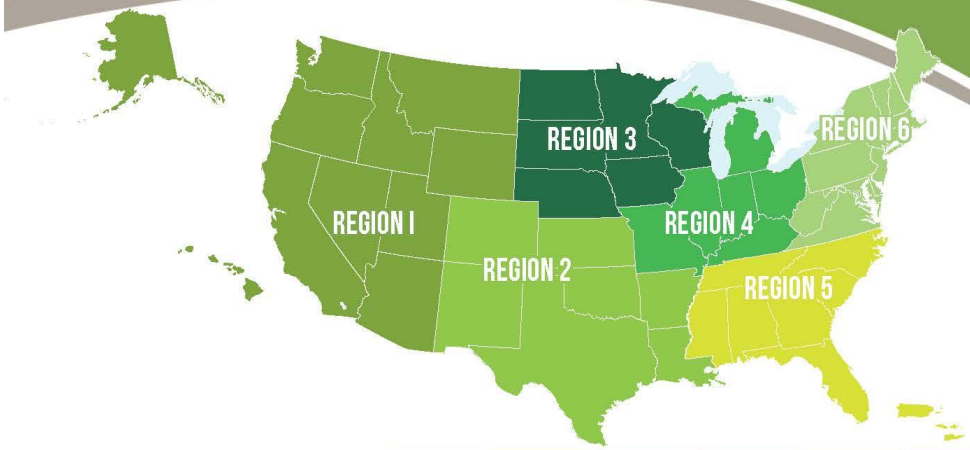
Auburn University

APPENDIX VI
GEORGIA AGRICULTURE EDUCATION MAP



APPENDIX VII
TEACH AG STATISTICS SHEET

2017 AGRICULTURE TEACHER SUPPLY AND DEMAND OVERVIEW NATIONWIDE



	REGION I	REGION 2	REGION 3	REGION 4	REGION 5	REGION 6	NATIONWIDE*
AVERAGE SALARY	$43,000	$42,660	N/A	$ 43,986	$40,619	$45,200	$43,093
EXTENDED CONTRACT DAYS	28	47.5	27	43	37	13	33
AG TEACHERS	1,872	3,879	1224	2,059	2,358	1,298	12,690
AG PROGRAMS	1,102	2,230	1048	1,511	1,759	821	8,471
FEMALE/MALE TEACHERS	893/729	1,489/2,390	600/624	888/1,130	1,036/1,322	676/587	5,582/6,782
FULL-TIME/ PART-TIME TEACHERS	1,778/94	3,399/480	1151/73	2,045/14	2,349/9	1,270/28	11,992/698
NEW POSITIONS	70	65	11	31	30	9	216
NEW PROGRAMS	30	39	26	20	47	27	189
RETIREMENTS	20	48	20	23	27	20	158
LEFT TEACHING	65	178	44	98	87	38	510
ALT. CERTIFIED/NON-LICENSED HIRES	42/11	69/29	37/10	62/7	114/36	32/13	356/106
POSITIONS TO FILL	135	280	71.3	141	125	60	812.3
PROGRAMS CLOSED/POSITIONS LOST	12/20	8/11	5/3.7	2/11	19/19	6/7	51/71.7
UNFILLED FULL-TIME POSITIONS	40	11	2	0	13	6	72
UNFILLED PART-TIME POSITIONS	1	1	0	1	0	1	4
AGRICULTURAL EDUCATION GRADUATES	117	270	80	105	111	57	740
AGRICULTURAL EDUCATION GRADUATES TEACHING	107	191	59	85	79	35	556
AG ED MAJOR ENROLLMENT	540	978	378	591	472	183	3,142

TEACH AG

www.naae.org/teachag

Smith, A. R., Lawver, R. G., & Foster, D. D. (2018). National Agricultural Education Supply and Demand Study, 2017 Executive Summary. Retrieved from:http://aaaeonline.org/Teacher-Supply-and- Demand/

AGRICULTURE TEACHER SUPPLY AND DEMAND HIGHLIGHTS

- The **demand** for agriculture teachers continues due to **program growth**, **expansion**, **retirements** and **openings**.
- School districts **value** the agricultural education model of rigorous **STEM** based classroom and laboratory instruction, experiential learning and leadership development.
- The **retention rate** of agriculture teachers is historically **high** at nearly **96%**.
- Individuals majoring in **agricultural education** is **increasing** even as other education content areas are experiencing decreases.
- The **conversion rate** of agricultural education graduates is at an all-time **high** of **75%**.
- The **majority** of **new** agricultural education majors are **Caucasian female**.
- School districts are hiring an unprecedented number of **alternatively certified** and **non-licensed teachers** to **fill** open positions due to **demand**.