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EXAMINING TEACHER PERCEPTIONS WHEN UTILIZING VOLUNTEERS IN  
SCHOOL-BASED AGRICULTURAL EDUCATION PROGRAMS

by

Ashley B. Cromer

A thesis submitted in partial fulfillment  
of the requirements for the degree

of

MASTER OF SCIENCE

in

Agricultural Extension and Education

Approved:

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UTAH STATE UNIVERSITY  
Logan, Utah

2018

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## ABSTRACT

Examining Teacher Perceptions when Utilizing Volunteers in School-based  
Agricultural Education Programs

by

Ashley B. Cromer, Master of Science

Utah State University, 2018

Major Professor: Dr. Tyson J. Sorensen  
Department: Applied Sciences, Technology and Education

There has been little research conducted related to how school-based agricultural (SBAE) education teachers perceive the utilization of volunteers in the classroom. The United States is facing a shortage of SBAE teachers and, with turnover rates that are not sustainable, solutions for support and reduction of the SBAE teachers' workloads must be sought with diligence. There is potential for volunteers to reduce some of the responsibilities that the SBAE teacher faces. The purpose of this study was to determine the demographic characteristics of both the volunteers being utilized and of the SBAE teachers; determine the perceived benefits, barriers and beliefs SBAE teachers hold towards volunteer utilization; and determine if there is a relationship between these perceptions teachers hold and their choices in the utilization of volunteers. The research questions guiding this study were: 1. What are the demographic characteristics of SBAE teachers and programs in the United States? 2. What is the current utilization of volunteers in SBAE programs in the United States? 3. What are the perceptions and beliefs of SBAE teachers regarding volunteer utilization within SBAE programs in the

United States? 4. What are the intentions of volunteer utilization among SBAE teachers in the United States? 5. What is the relationship between volunteer utilization and selected teacher/program characteristics and perceptions of SBAE teachers?

The total population of this study was all of the SBAE teachers in the United States. A simple random sample of this population was taken (n=500), which was provided by the National FFA Association based on the 2017-2018 membership (N = 11,000). This descriptive study was utilized survey research to accomplish the purpose, assessing the current utilization of volunteers, and the perceptions that SBAE teachers hold. Study participants were identified as SBAE teachers who held a part or full-time assignment to teach agriculture. Descriptive statistics were utilized to determine the demographic information of the volunteers utilized, the SBAE teachers, and program characteristics.

(102 pages)

## PUBLIC ABSTRACT

Examining Teacher Perceptions when Utilizing Volunteers in School-Based  
Agricultural Education Programs

Ashley B. Cromer

There has been little research conducted related to how school-based agricultural (SBAE) teachers perceive the utilization of volunteers in the classroom. The United States is facing a shortage of SBAE teachers, and with turnover rates that are not sustainable, solutions for support and reduction of the SBAE teachers' workload must be sought with diligence. There is potential for volunteers to reduce some of the responsibilities that the SBAE teacher is faced with. The purposes of this study are to determine the demographic characteristics of the volunteers being utilized and of the SBAE teachers, determine the perceived benefits, barriers and beliefs SBAE teachers hold towards volunteer utilization, and determine if there is a relationship between these perceptions teachers hold and their choices in the utilization of volunteers. The research questions guiding this study were: 1. What are the demographic characteristics of SBAE teachers and programs in the United States? 2. What is the current utilization of volunteers in SBAE programs in the United States? 3. What are the perceptions and beliefs of SBAE teachers regarding volunteer utilization within SBAE programs in the United States? 4. What are the intentions of volunteer utilization among SBAE teachers in the United States? 5. What is the relationship between volunteer utilization and selected teacher/program characteristics and perceptions of SBAE teachers?

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Ashley Cromer

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## CHAPTER I

### INTRODUCTION

Enrollments in School-based Agricultural Education (SBAE) programs in the United States have steadily increased over the past several years, placing more demands on teachers and the programs (Smith, Lawver, & Foster, 2017). A common approach in education aimed at extending resources and providing assistance to teachers is to enlist the help of volunteers (Carole, de Stefano, Watkins, & Sheldon, 1995). The purpose of this study was to describe volunteer participation in SBAE programs, including the attitudes of agricultural educators regarding the use of volunteers, their perceptions of the challenges and barriers to using volunteers, and intentions for future volunteer utilization. This study also investigated the relationship between the utilization of volunteers and personal and SBAE program characteristics.

The motivation for this study began with the shortage of qualified agricultural education teachers in the United States (Foster et al., 2016). There have been many factors associated with the shortage of SBAE teachers in the United States including increased growth of student populations, expansion of existing programs, and creation of new programs. One other compelling factor related to the teacher shortage in agricultural education can be attributed to the excessive work demand of agriculture teachers, which sometimes leads to burnout and high teacher turnover (Sorensen, McKim, & Velez 2016; Tillinghast, Ramsey, & Terry, 2013; Torres, Lawver, & Lambert, 2009). Agricultural education is a demanding profession, one that typically involves a work week of well over 40 hours (Murray, Flowers, Croom, & Wilson, 2011; Sorensen et al., 2016; Torres, Ulmer, Aschenbrener, 2008). Besides their responsibilities in teaching and laboratory

instruction, agricultural education carries various other roles, such as advising an active FFA chapter; managing Supervised Agricultural Experience programs (SAE); fostering school and community partnerships; and supervising program planning, marketing, and growth (National FFA Organization, 2017). Experts have suggested that SBAE teachers, as well as state staff and local administrators, should seek ways to reduce the time-consuming workload of teachers as a way of keeping SBAE teachers in the classroom (Sorensen, 2015; Torres et al., 2008). One way to maintain an effective program and reduce teachers' heavy workload is by utilizing volunteers in SBAE programs. This study sought to explore how volunteers can potentially play a part in the workload reduction of SBAE teachers in the United States.

With a clear understanding of what potential volunteer utilization has to provide for the program and a subsequent implementation of volunteer support, SBAE teachers could receive much-needed help from volunteers. This study aimed to determine the current utilization of volunteers in order to suggest the best avenues of professional development and to provide support to SBAE programs who wish to begin to utilize volunteers or to improve current utilization of volunteers.

Evidence from previous studies in agricultural education show that volunteers contribute significantly in supporting effective agricultural education programs, and a definite need for volunteers is described by Clary et al., (1998). Further, Katz (1983) identified the need for additional information on how to use volunteers in agricultural education, noting that any increased involvement from volunteers would be severely inhibited unless more research was completed due to the lack of resources available to

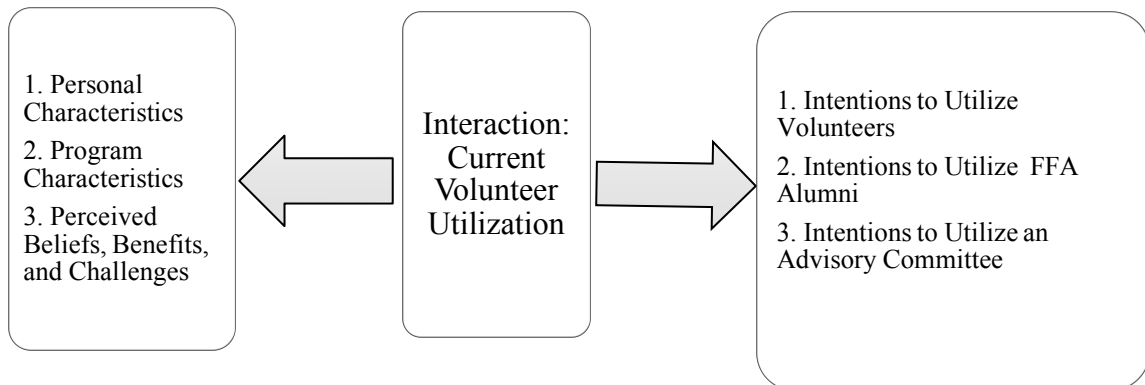
SBAE teachers in professional development for volunteer training and management strategies.

The lack of resources provided to SBAE teachers directly related to volunteer utilization leads to a problem in agricultural education concerning volunteers. Limited studies have been conducted to identify how volunteers are used in agricultural education settings. More and more demands with fewer resources are being placed on agricultural educators.

### **Theoretical Framework**

This study explores the costs (challenges) and rewards (benefits) as perceived by SBAE teachers when utilizing volunteers. The Expectancy-Value Theory states that expectancy and value are directly related and affect one another, as they both predict achievement-related choices and performance (Jones, 2014).

This study measured the expectations that SBAE teachers hold toward volunteers, as well as their evaluations of what volunteers contribute to the program. There is limited research on SBAE teachers' perceptions concerning volunteer utilization. The relationship should be further examined so that state staff and teacher educators may determine the best way to develop professional development resources and support that can be offered to pre-service and SBAE teachers across the United States. The conceptual framework for this study focused on the relationship between SBAE teachers' perceptions, expectations, and values regarding volunteers (see Figure 1).



*Figure 1.* Conceptual framework used to study volunteer utilization in SBAE programs.

### **Purpose and Research Questions**

This study was developed to explore volunteer utilization in SBAE programs. I sought to describe characteristics of SBAE teachers and programs in the United States, describe the current utilization of volunteers by SBAE teachers, describe the perceptions and beliefs of agricultural education teachers toward volunteer utilization and the associated barriers, describe the intentions of SBAE teachers to utilize volunteers in the future, and describe the relationship between utilization of volunteers and teacher and program characteristics.

The following research questions guided this study:

1. What are the demographic characteristics of SBAE teachers and programs in the United States?
  - a. What are the personal characteristics of SBAE teachers?
  - b. What are the characteristics of SBAE programs?



2. What is the current utilization of volunteers in SBAE programs in the United States?
  - a. What type of organizational structure is used by current volunteer programs?
  - b. How much do teachers interact with volunteers?
  - c. Who are the volunteers involved in SBAE programs, and how many hours do they serve?
  - d. What roles do volunteers assume in SBAE programs and how often?
3. What are the perceptions and beliefs of SBAE teachers regarding volunteer utilization within SBAE programs in the United States?
  - a. What are the benefits of volunteer utilization perceived by SBAE teachers?
  - b. What are the perceived challenges and barriers of SBAE teachers regarding volunteer utilization in SBAE programs?
  - c. What are the general beliefs (expectancies and values) of SBAE teachers toward volunteers in SBAE programs?
4. What are SBAE teachers' intentions surrounding volunteer utilization in the United States?
5. What are the relationships between volunteer utilization, selected teacher/program characteristics, and perceptions of SBAE teachers?

### **Basic Assumptions**

For the purpose of this study, the following assumptions were made:

1. The perceptions of beliefs about volunteer utilization held by SBAE teachers in the United States can be measured by the instrument outlined above.
2. SBAE teachers in this study had the capability to complete the online questionnaire, knew the answers asked of them, and answered items honestly and thoughtfully.
3. The instrument adequately measured the participants' perceptions and beliefs.
4. The random sample of agriculture teachers was representative of the nation's population of agriculture teachers.

### **Limitations of the Study**

The following limitations existed for this study:

1. Because this study focused on SBAE teachers, it may not be generalizable to teachers of other subjects, grade levels, or instruction formats.
2. Because data collection is self-reported, a threat to validity may exist.
3. Online questionnaires limit the type of data that can be collected and, therefore, may have excluded a deeper understanding of participants' perceptions and feelings.
4. The questionnaire was reviewed for content validity, but there is a chance that some questions did not accurately measure the opinions of the participants.
5. The sample frame was supplied by the National FFA Organization and consisted only of teachers identified by them as agricultural education teachers. There is a possibility that other teachers in the United States matching the parameters of the study population were not included in the frame, or that teachers included in the

frame did not meet the inclusion criteria; in other words, some frame error may have existed.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

Agricultural education in the United States is facing a deficit of qualified teachers (Smith et al., 2016). The shortage is due to numerous factors, one of which is teacher turnover (Sorensen et al., 2016). Turnover early in educators' careers will only expand the shortage of agriculture educators in the United States. One of the many ways to both expand the relationships in the community and possibly reduce the workload of SBAE teachers is to incorporate volunteers into the SBAE program.

One possible reason for a high SBAE teacher turnover rates is that agricultural educators are responsible for carrying out numerous roles when managing SBAE programs (National FFA, 2017). When teachers are required to balance responsibilities to maintain a local SBAE program, it may increase stress (Tillinghast, et. al, 2013). SBAE teachers must assume numerous roles throughout each workday. The roles may include classroom and laboratory instruction, supervised agricultural experiences (SAE) programs, and advisement of an active FFA chapter. Further, many teachers are responsible for fostering a strong community and maintaining school partnerships, plan and market programs, and professional and program growth (National FFA Organization, 2017). Implementation of all these extra roles has the potential to create an increased demand on teacher time and workload. According to Rankin (2016), mismanagement of a teacher's workload can cause retention problems. One approach to reducing teacher workload and time commitments, thereby addressing the problems outlined above, is to utilize volunteers.

Research surrounding communities who utilize volunteer programs provide

evidence of positive influences on adolescent developmental outcomes, including improvements in academic achievements, self-concept, and interpersonal relationships (Davidson, Redner, Blakely, Mitchell, & Esmhoff, 1987; DuBois & Neville, 1997; Grossman & Tierney; 1998; LoSciuto, Rajala, Townsend, & Taylor, 1996). Volunteers who serve in mentorship roles with youth through role modeling and the provision of emotional support and positive feedback have demonstrated positive developmental outcomes. By serving as supportive models of success, mentors may directly stimulate improvements in adolescents' self-perceptions, attitudes, and behaviors (Grossman and Rhodes, 2002). Despite the fact that volunteers can benefit from their role, there has been little research completed with adolescents and how they interact with volunteers in a school-based setting.

Analyzing current SBAE teacher retention and how to support current and future teachers identifies a problem in agricultural education where volunteers may be a solution. A small amount of literature can be found within agricultural education relating to volunteers and how SBAE teachers utilize them as a resource. Defining the role of volunteers in SBAE programs and how SBAE teacher utilize these volunteers will help prioritize resources that in turn, assist in decreasing the current demanding workload that SBAE teachers face (Seevers & Rosencrans, 2001). This study sought to explore current volunteer utilization in SBAE programs, the perceptions that SBAE teachers have about volunteer utilization, and their intentions to increase the use of volunteers.

### **Volunteerism in the United States**

Volunteering is any activity in which time is given freely to benefit another person, group, or cause. Volunteerism is typically proactive rather than reactive and

entails some commitment of time and effort. The act of volunteering is seen as being more formalized and public than ever before (Snyder & Omoto 1992). Bussell and Forbes (2002) described those who volunteer to be “an extremely diverse group, active in a wide variety of contexts” (p. 244).

Volunteerism is alive and well in the United States. Between September 2014 and September 2015, about 62.6 million people volunteered through or for an organization at least once, accounting for 24.9% of the 2015 population in 2015 (Bureau of Labor Statistics, 2016). In 2015, the organizations that volunteers were attending most frequently were religious (33.1 % of all volunteers), followed by educational or youth related service (25.2 %) (Bureau of Labor Statistics, 2016).

There are different motivations for volunteering among various groups of people based on the demographic categories of gender, age, education, and personal affiliation, as well as personal factors. A review of the literature provided insight into the differences among various demographic groups as to who volunteered as well as their motivations for volunteering.

Overall, women volunteer at a higher rate than men. The volunteer rate for women in 2015 was 27.8% while the volunteer rate for men was 21.8%. The report provided by the BLS (2016) is corroborated by several studies that confirm gender is a strong predictor of volunteerism. Multiple studies have confirmed that women are more likely to volunteer than men (Caldwell & Andereck, 1994; Cnaan & Goldberg-Glenn, 1991; Trudeau & Devlin, 1996).

Research findings are varied when examining how gender affects the motivation to volunteer. Some research suggests that male and female volunteers contribute their

time for very different reasons. Fletcher and Major (2004) found no differences in the social or career motivations for volunteering between males and females, but they did observe differences for motivations concerning protecting, morals, understanding, and esteem. Males may be more likely to volunteer to support their jobs and self-esteem (Little, 1997), while females tend to volunteer for societal reasons or for motivations related to helping others (Musick & Wilson, 2003).

Over the last twenty years, there has been a shift in the number of women in agricultural education. In 2016, teacher educators indicated that graduates in agricultural education were 67% female and 33% male (Smith et. al, 2017). This study gives insight into the differences of male and female decisions when participating agricultural education, whether as a teacher, student, or volunteer.

According to the BLS (2016), the age groups most likely to volunteer were those in the 35 to 44-year-old (28.9%) and the 45 to 54-year-old (28.0%) age ranges. Age groups with the lowest volunteer rates were persons age 65 and over (23.5%) and those in their early twenties (21.8%). However, even though the 65 and over age group had some of the lowest total numbers of volunteers, those who did volunteer in this age group contributed more hours than any other age group, at 94 hours per person annually.

As a demographic group, young adults are an underrepresented market segment and may reflect an excellent source of volunteers because of their positive viewpoints of volunteerism (Boraas, 2003; Burns, 2013; Hankinson & Rochester, 2005).

The challenge in recruiting young adults as volunteers lies in identifying what motivates them to engage with an organization. Peterson (2004) reported that younger volunteers are motivated by recognition of their efforts, but that older adults are more

inclined to volunteer to satisfy a sense of social responsibility. Young adults are dependent on personal needs, benefits, and interests to spark their willingness to volunteer (Hustinx & Lammertyn, 2003; Rehberg, 2005).

One of the most consistent demographic variables related to motivations for volunteering is the educational attainment of the individual. There is a direct, positive relationship between the level of education and the amount of time spent in volunteer activities (McPherson & Rotolo, 1996; Reed & Selbee, 2000; Yavas & Reicken, 1985). According to the Bureau of Labor Statistics (2016), individuals with high levels of educational attainment are more likely to volunteer than those with less education. Those enrolled in college are more likely to volunteer than those not enrolled. Also, recent college graduates are four times more involved in volunteer activities than high school dropouts and twice as likely as high school graduates.

Affiliation with a particular organization provided a motivation for volunteers based on their concern for the well-being of that organization and the people with whom they affiliated (Atkinson & Birch, 1978). Henderson (1981) attributed the motivation for parents getting involved in their children's organizations to affiliation.

### **Volunteerism in Education**

Evidence suggests that volunteers can be significant resources in helping to create a supportive and welcoming environment at schools and facilitating students' behavior and performance (Henderson & Mapp, 2002). As positive role models and student motivators, volunteers are viewed as contributing to better school attendance, improved grades and test scores, matriculation, reduced misbehavior, better social skills, staying in school, graduation, and going on to college. Available evidence suggests that when adult



volunteers are present, students see that adults take school and education seriously and consequently respect learning. This perception promotes positive attitudes toward school.

Creating an atmosphere where teachers, parents, and community members can work together is vital to the success of a volunteer program. Sanders (2001) found that community partnership is vital to the success of students, their families, and the school. Sanders also identified that there are many obstacles that are faced when developing these partnerships. These obstacles include lack of participation, time, and community partners (2001).

Every school can benefit greatly from a thoughtfully planned, organized, and focused volunteer program. According to Brent (2000), many benefits are derived from the use of volunteers in an academic setting. The benefits volunteers provide to students, teachers, and administrators far outweigh their related costs (Rankin, 2016). Research suggests that schools should turn to a variety of members in the community whose expertise or experiences naturally complement curriculum subject matter (Carole, Stefano, Watkins, & Sheldon, 1995). Potential community partnerships can enhance instruction by exposing students to real-life experts during meaningful and enriching learning activities (Willems, & Gonzalez-DeHass, 2012). Collaboration between schools and members of the community is beneficial for students because it can provide students with opportunities for mentorships and after-school programs that extend the classroom curriculum to real world settings (Ferreira, 2001).

In addition to school-community cooperative efforts, effective and successful volunteer programs require cooperative and mutually supportive relationships among

teachers, students, and parents or guardians. When teachers involve parents in appropriate activities, that involvement contributes to teaching and learning. Research shows that the level of parental involvement is associated with academic success (Epstein 2010).

People living and working in the community can provide rich resources consisting of specialized knowledge and skills to contribute to an effective SBAE program, but studies show that agricultural educators do not take full advantage of the resources volunteers provide (Tillinghast et al., 2013). People in the community who have high levels of expertise in the subjects being taught readily respond to opportunities to assist or guest lecture with classroom and laboratory instruction, to instruct students during field trips, and to consult with students who are conducting independent studies or class assignments (Tillinghast et al., 2013). Farmers, extension agents, and employees in agribusiness firms can provide on-the-job supervision and instruction to students who are placed on farms and in agribusinesses for supervised agricultural experience programs (Newcomb, McCracken, Warmbrod, & Whittington, 2004). Elliot and Suvedi (1990) examined the roles of volunteers in agricultural education programs in Michigan, drawing the conclusion that more volunteers should be utilized in assisting with classroom and laboratory instruction, field trips, and guidance in the agricultural education program.

Seevers and Rosencrans (2001) reported that in New Mexico, the attitude of agriculture teachers towards their use of volunteers were positive. Many agriculture teachers reported that when utilizing volunteers, they were able to focus on other aspects of their program. They explained, “volunteers are an invaluable community resource and should be involved whenever possible in agricultural education programs” (p. 78).

Tillinghast et al. (2013) published a study focused on teacher perceptions of adult volunteers in SBAE programs. This study found that SBAE teachers generally agree that volunteers are a valuable asset and contribute to the SBAE program. Teachers in the study believed that when a volunteer is properly trained, they can assist with activities including transportation (of livestock, students, and equipment), judging Career Development Events (CDEs), and chaperoning overnight events. Despite that these SBAE teachers has positive perceptions of volunteers, Katz (1983) identified the need for research on how to use volunteers in agricultural education, noting that any increased involvement from volunteers would be severely inhibited unless more research was completed. Without the development of resources, SBAE teachers may not have the necessary training to fully utilize a volunteer program.

In agricultural education, parental involvement can be a key factor in developing and running a successful program. Warner and Washburn (2009) conducted a Delphi study of SBAE programs located in urban communities and found that four of the ten issues with the highest level of participant agreement were directly related to the parents of the students in the SBAE program. Specifically, respondents identified that when parents showed a lack of understanding of agricultural careers and production, the students lacked effective communication channels, which resulted in a lack of parental involvement in the SBAE program.

Myers, Dyer, and Washburn (2005) identified managing the local FFA Alumni and other adult groups as topics for in-service needs of beginning teachers. Garton and Chung (1996) named utilizing a local advisory committee among the top ten topics of

potential in-service education for beginning teachers, but the results of that study showed utilizing an affiliated adult organization to be a low priority.

A study by Dormody, Seevers, and Clason (1996) addressed the role of multiple adult support groups in agricultural education, including the FFA Alumni, the National Young Farmers Education Association, and advisory committees. According to this study, teachers had a positive attitude toward volunteer organizations affiliated with their SBAE program (Newcomb et al., 2004).

A specific avenue for volunteers to assist in SBAE programs are advisory committees, defined by Newcomb et al. (2004):

An advisory committee is a group of citizens from the community who are interested in the local school's agriculture department. Representatives are usually selected for three-year terms on a rotating basis so some of the members' terms expire each year. The committee is often made up of members who are farmers or ranchers, representatives of agricultural business, representatives from county agencies such as the fish and game commission, parents, and former and current students (p. 15).

Dormody et al. (1996) found that 90% of the local programs in New Mexico had advisory committees, which advised on course content, assessed the equipment needs, and evaluated the SBAE program itself. Overall, it was most common for one to two adult organizations to be affiliated with an SBAE program through their advisory committee.

The primary organization for volunteer utilization in agricultural education is The National FFA Alumni Association. A local chartered FFA Alumni Chapter can be of assistance to the teacher. Dormody et al. (1996) described the FFA Alumni Association as an extension of the FFA program and describes its primary purpose as assisting the

SBAE educator in increasing resources for the FFA Chapter. The National FFA Alumni Association has been promoting and supporting agricultural education both in and out of the classroom since 1971 through the utilization of volunteers. One strategy the National FFA Alumni Association uses to support the local SBAE programs is the commitment of resources to mobilize volunteers at all levels of agricultural education and FFA (National FFA, 2017). FFA Alumni serve as an additional support mechanism in local programs to help plan, develop resources, mentor teachers and members, create SAE opportunities, and build community support and involvement (National FFA, 2017).

In 1983, Katz called for additional research on the role of FFA alumni in agricultural education. Since then, there have been very few studies published regarding the National FFA Alumni Association within agricultural education research. Heinert (2008) provided the most current research related to FFA alumni as a volunteer organization. He reported that volunteer organizations have a huge impact on their local FFA chapters. In 1989, there was an entire issue of *The Agricultural Education Magazine* that was dedicated to best practices of FFA alumni utilization. The issue focused on promising practices, roles of alumni members in volunteering, and ideas for advocacy and how to recruit members.

Currently, the FFA alumni membership consists of 225,891 members who serve 1,934 different FFA chapters across the country. While FFA alumni members live in all 50 states, Puerto Rico, the District of Columbia, and the Virgin Islands, 12 states have fewer than five chapters and fewer than 900 members per state (National FFA Alumni Association, 2017).

## Theoretical Framework

### Expectancy-Value Theory

John Atkinson developed the expectancy-value theory of achievement motivation (Atkinson, 1957; Atkinson & Birch, 1978; Atkinson & Feather, 1968; Atkinson & Raynor, 1974, 1978). Expectancy-value theory is a general theory concerned with the understanding of material or non-material resources between individuals and/or groups in an interactive situation such as volunteers in SBAE programs. The basic idea of Atkinson's expectancy-value theory is that behavior depends on one's expectancy of attaining various outcomes (i.e. goals) as a result of how much value is placed on that outcome. Based on this initial theory, Wigfield and Eccles (1992, 2000, 2002) summarized that positive motivational consequences come from attributing success to ability, while attributing failure to lack of ability has negative consequences. Within expectancy-value theory, the expectancy is the "probability that behavior will achieve the aim; the value is the level of significance of that aim" (Burak, 2014, p. 124). Teachers need to have the expectancy that their volunteers can complete the task in order for the program to value volunteers' contribution. Both expectancy and value are necessary for motivation (Jones, Ruff, & Osborne, 2015). Initially, Eccles and her colleagues adapted the model of expectancy-value theory to help articulate gender differences in the expectancy and value of mathematics and how the differences influenced the variant gender choices of math courses and majors (Jones et. al, 2015). These models have been tested in real-world achievement situations rather than in the laboratory tasks often used to test Atkinson's original theory (Wigfield, Tonks, & Kluda, 2009).

Eccles (2007) stated that the expectancy-value model relates to "the individual's

expectations for success, and the importance or value the individual attaches to the various options perceived by the individual as available” (p. 105). When a SBAE teacher delegates responsibilities, there will be an expectation formed by the SBAE teacher of what a volunteer is to complete.

Expectancies and values are hypothesized to influence performance and task choice directly. Expectancies and values themselves are influenced by task-specific beliefs such as perceptions of competence, perceptions of the difficulty of different tasks, and individuals’ goals and beliefs, along with their affective memories for different achievement-related events. These beliefs, goals, and affective memories are influenced by individuals’ perceptions of other peoples’ attitudes and expectations for them, and by their own interpretations of their previous achievement outcomes.

The expectancy-value theory was utilized in this study because the direct interactions between a volunteer and SBAE teachers are based within social exchange theory. Within the construct of value of the expectancy-value theory is where what the volunteer brings to interaction lays: here is where the volunteer brings expertise, time, commitment, fundraising abilities or whatever the SBAE teacher seeks and views as valuable. If the volunteer is not demonstrating a value that is high enough for the effort of managing them, the SBAE teacher may choose to disregard the interaction and refuse to utilize the volunteers.

Finally, the interaction of the expectation and value may be the most important piece of the expectancy-value theory within the study. The interactions between the volunteer and SBAE teacher are where decisions about volunteer utilization are determined. If the interaction is positive, and the expectation of value is met or exceeded,

the SBAE teacher could choose to continue engaging in these interactions because they are positive. However, if the interactions between volunteers and SBAE teachers are negative, the teacher may choose to no longer utilize volunteers within the SBAE program.

The expectancy-value theory is the framework that guided the research. SBAE teachers have to evaluate all interactions made with volunteers that are involved within their SBAE program, there are numerous factors that SBAE teachers are asked to consider. Weighing the value of the volunteer and what they have to offer to the SBAE program is the focus of this study.

In this study, current practices of volunteer utilization are examined through the collection of demographic data of the SBAE teacher and the program. In order to examine the value of interaction between SBAE teachers and volunteers, the intentions of volunteer utilization by SBAE teachers are investigated. These items give insight into how volunteer organizations, such as the National FFA Alumni Association and advisory committees, as well as general volunteer contributions, are perceived by SBAE teachers.



## **CHAPTER III**

### **PROCEDURES**

This study used survey research methodology to collect information on school-based agriculture education (SBAE) teachers' utilization of volunteers. The survey instrument was designed and distributed to a random sample of SBAE teachers in the United States using the online survey system Qualtrics™. The online questionnaire was used for this nationwide study because of the advantages it provides, such as low costs, data collection from a large geographical area in a short period of time, and relative ease of inputting collected data from a large population into a statistical program (Dillman, 2007).

#### **Research Design**

The study uses a descriptive and correlational method. A descriptive method was used to collect information about school-based agriculture teachers' utilization of volunteers. A correlational method was used to describe the relationship between the use of volunteers and various teacher characteristics and beliefs. The following research questions guided the study:

1. What are the demographic characteristics of SBAE teachers and programs in the United States?
  - a. What are the personal characteristics of SBAE teachers?
  - b. What are the SBAE program characteristics?
2. What is the current utilization of volunteers in SBAE programs in the United States?

- a. What type of organizational structure do current volunteer programs use?
  - b. How much teacher interaction with volunteers is there?
  - c. Who are the volunteers involved in SBAE programs and how many hours do they serve?
  - d. What roles do volunteers assume in SBAE programs and how often?
3. What are the perceptions and beliefs of SBAE teachers regarding volunteer utilization within SBAE programs in the United States?
    - a. What are the perceived benefits of SBAE teacher regarding volunteer utilization?
    - b. What are the perceived challenges and barriers of SBAE teachers regarding volunteer utilization in SBAE programs?
    - c. What are the general beliefs (expectancies and values) of SBAE teachers towards volunteers in SBAE programs?
  4. What are the intentions of volunteer utilization among SBAE teachers in the United States?
  5. What is the relationship between volunteer utilization and selected teacher/program characteristics and perceptions of SBAE teachers?

### **Description of the Population**

The target population for this study consisted of all SBAE teachers in the United States during the 2017–18 school year. A secondary agricultural education teacher was defined in this study as an individual with a full-time or part-time assignment to teach agriculture courses and who provided instruction in middle or secondary schools.

Since it is required that all chartered SBAE programs have FFA, and that SBAE teachers be listed as FFA advisors, the National FFA Organization provided a data set as the source of participant contact information. According to the National FFA Organization, there were over 11,000 agriculture teachers in the United States when this study was conducted (National FFA Organization, 2017).

To determine the appropriate sample size, Krejcie and Morgan's (1970) and Cochran's (1977) sample size determinant formulas were used (see Figure 2). Based on Krejcie and Morgan (1970), the acceptable margin of error is 5% for the sample size. This study targeted a simple random sample from the entire population of secondary agriculture teachers in the United States. Based on Cochran's (1977) sample size formula, the sample size required for this study was at least 371. To account for non-response but allow for generalizability, a sample frame of 500 SBAE teachers was obtained from the National FFA Organization, which consisted only of names and email addresses.

$$n_0 = \frac{t^*s^2}{d^2}$$

*Figure 2.* Sample size formula used for this study (Cochran, 1977).  $t$  = value for selected alpha level (.05),  $s$  = estimate of standard deviation in the population,  $d$  = margin of error.

### **Instrumentation**

The survey instrument (Appendix A) consisted of four sections which explored the current utilization of volunteers in SBAE programs. The four sections were: description of current volunteer utilization (Section I), perceptions of SBAE teachers

towards volunteers (Section II), intentions for future utilization of volunteers (Section III), and demographic information (Section IV).

The first section of the instrument consisted of items designed to describe how volunteers were used in SBAE programs. This section was divided into five sub-sections to elicit information about the (a) type of organizational structure used in SBAE volunteer programs, (b) the quantity of volunteer-teacher interaction, (c) who the volunteers tend to be, (d) how volunteers are trained, and (d) the specific roles of volunteers. First, participants were asked to identify if they considered themselves to be agricultural education teachers by responding to the following request: "Please select the statement that best describes your work situation," followed by three choices: (a) "I have a full-time teaching assignment to teach agriculture," (b) "I do not have a full-time teaching assignment, but I do teach at least one agriculture class (e.g. part-time)," (c) "I do not teach any agriculture classes." Participants who responded to the first two statements were considered to meet the population parameter of being an agriculture teacher and moved to the next question. Participants responding to the final statement were terminated from the survey. Next, participants were asked if they (including others in the SBAE program) had utilized volunteers in their agricultural education program in the past 12 months. Teachers who reported not utilizing volunteers bypassed the balance of Section I by means of skip-logic within the online survey program.

To determine the organizational structure of volunteer programs, teachers were asked two separate, dichotomous questions: if they had a chartered FFA Alumni organization or if they had a functioning advisory committee for their local agricultural education program. Participants were able to list that they utilized both organizations,

there was nothing within the instrument to prohibit that action. To determine the quantity of teacher-volunteer interaction, teachers were asked to report how many hours in the past 12 months they had spent working exclusively with volunteers (e.g., training, planning, and meetings) without students.

Although several questions could have been asked, to determine who the primary volunteers of the SBAE programs were and how many hours they contribute, only two questions were asked to keep the instrument concise. First, the participants were asked to identify their volunteers by checking all that applied from a list of four (former students, parents of current students, community members(individuals not businesses), and local businesses). Items were based on previous literature (Seevers & Rosencrans, 2001; Tillinghast et al., 2013). Then, participants were asked to share the total number of volunteers utilized in the past 12 months and the total amount of hours for people selected as volunteers.

Finally, to determine the roles and frequency of those specific roles of volunteers in SBAE programs, participants were asked to respond to the following question: “How often do volunteers assume the following roles in your agricultural education program?” Using a four-point scale which ranged from never (1) to frequently (4), participants were asked to respond to 11 items (i.e. roles) that were based on categories of volunteers identified in previous literature (Seevers & Rosencrans, 2001; Tillinghast et al., 2013) and adapted for this study. Sample items included: administrative/office support, assisting with CDE events, fundraising, and assisting with student SAEs (See Appendix A). One item allowed participants to add other roles not listed on the survey and to identify the frequency.

The second section of the instrument consisted of items eliciting information about the general beliefs and perceptions of SBAE teachers toward SBAE program volunteers. This section was divided into three sub-sections to elicit information about perceived barriers and challenges (i.e., costs), perceived benefits, and general beliefs about expectations toward and values of volunteers.

To determine the perceived challenges and barriers of utilizing volunteers, participants were asked to respond to the following question: “Please indicate the level of agreement for the following statements regarding challenges or barriers of using volunteers...” followed by eight items based on the literature in agricultural education (Seevers & Rosencrans, 2001; Tillinghast et al., 2013) and modified for this study. Using a six-point scale which ranged from Strongly Disagree (1) to Strongly Agree (6), participants indicated their level of agreement for the eight items regarding the challenges and barriers of using volunteers. Sample items included: volunteers try to take over my program (dictate how the program should be conducted), the system associated with volunteers is a burden (background check, district oversight, policies), I do not know how to organize a group of volunteers, and they lack the ability or knowledge to contribute to my program (see Appendix A).

To determine the perceived benefits of utilizing volunteers, participants were asked to respond to the following question: “I believe that volunteers are beneficial to my agricultural education program because...” followed by 18 items based on the literature in agricultural education (Seevers & Rosencrans, 2001; Tillinghast et al., 2013) and modified for this study. Using a six-point scale which ranged from Strongly Disagree (1) to Strongly Agree (6), participants indicated their level of agreement with the 18 items

regarding the benefits of using volunteers. Sample items included: they provide guidance for the program (advisory role, technical content knowledge), they assist with school and community activities (guest speaker, field trip), they advocate for my local program, and they make my job easier (see Appendix A).

To determine the general beliefs about expectancy and value of utilizing volunteers, participants were asked to indicate their level of agreement with various statements regarding volunteer utilization. Using a six-point scale which ranged from Strongly Disagree (1) to Strongly Agree (6), a total of seven items based on the literature (Dever, 2016) and modified for this study were utilized. The seven items encompassed measures of ability-related beliefs, task difficulty, expectancy, utility value, intrinsic value, and attainment value. Sample items included, I believe that I can successfully work with volunteers in my program (ability beliefs); I expect that volunteers will improve the overall success of my program (expectancy); the benefits of volunteers in my program outweighs the limitations (utility value); in general, I enjoy working with volunteers (intrinsic value); and it is important to me that volunteers help my program be successful (attainment value) (See Appendix A).

The third section of the instrument consisted of items designed to elicit information about SBAE teachers' intentions to use volunteers in the future. Only one question made up this section, in which participants were asked to indicate their level of agreement with statements about their intentions to use volunteers in the future. Using a six-point scale which ranged from Strongly Disagree (1) to Strongly Agree (6), participants indicated their level of agreement for three items regarding future volunteer utilization. Participants were prompted to respond to the following statement: "Within the

next three years, I plan to..." followed by the following statements: increase volunteer utilization in my agricultural education program; increase the utilization of chartered FFA Alumni; and increase the utilization of an Advisory Committee.

The final section of the instrument consisted of seven items seeking to elicit information about SBAE teachers and their programs. Demographic information about SBAE teachers (e.g., age, gender, and perceived personality type) was sought. To determine the personality type of the SBAE teachers, participants were asked to indicate if they most often considered themselves to be introverted or extroverted. A total of four questions were utilized to determine SBAE program characteristics of the participants. These items included information about years of teaching experience, years of teaching in their current community, whether they lived in the community before being hired to teach there, the number of agriculture teachers in the agriculture program, and the location type in which the agriculture program is located (e.g., urban, suburban, rural).

### **Validity and Reliability**

I conducted a pilot study on SBAE teachers in the state of Utah using the online questionnaire. The online questionnaire was distributed to teachers via email. Teachers were chosen through a cross-referenced list between the sample provided by the National FFA Organization and the Utah FFA Organization's SBAE list to avoid double sampling. The results from the pilot test were used to determine construct reliability and to make minor adjustments to the final instrument.

A panel of experts consisting of a doctoral student in the College of Food, Agricultural, and Environmental Sciences from the Ohio State University and professors



from the College of Agriculture and Applied Sciences at Utah State University examined and critiqued the instrument for content and face validity, as well as overall quality.

Construct reliability estimates for each construct in the instrument were calculated from the pilot test (see Table 1). Since the survey instrument was administered only once, Cronbach's alpha coefficients were used for the reliability estimates. According to Nunnally & Bernstein (1994), reliability estimates should meet or exceed an alpha of .70 to be considered reliable. After testing each construct from the pilot (expectancy and value), both expectancy and value each exceeded a Cronbach's alpha of .70. However, after analysis, the construct of expectancy ( $\alpha = .71$ ) would have yielded a higher reliability ( $\alpha = .81$ ) by removing the statement, "In general, working with volunteers is a difficult thing to do." In order to keep all reliability estimates for each construct as high as possible while still maintaining the integrity of the construct, the statement was removed. The final number of items used for the expectancy construct was three in the survey that was administered. After administering the survey for the current study, reliability estimates were produced (see Table 1). Upon analysis, the construct of expectancy ( $\alpha = .69$ ) would have yielded a higher reliability ( $\alpha = .87$ ) by removing the statement, "I would expect the quality of my program to decline if I didn't use volunteers." In order to keep all reliability estimates for each construct as high as possible while still maintaining the integrity of the construct, the statement was removed. The final number of items used for the expectancy construct was two.

Table 1

*Construct Reliability Estimates of the Survey Instrument from Pilot and Current Study*

Instrument Construct	Pilot Study Cronbach's $\alpha$	Current Study Cronbach's $\alpha$
Value	.97	.87
Expectancy	.81	.87

**Data Collection**

The random selection of survey participants was invited to this study through electronic communication. Dillman (2007) recommended that the tailored design method is best for collecting data from participants. To increase the response rate, incentives were utilized by offering a drawing of four gift cards in the amount of \$50 each. A pre-notice email message (Appendix B) was sent to all teachers in the sample frame inviting them to participate in the survey. Two days after sending the pre-notice email to the participants, an email was distributed to participants which consisted of a cover letter—which also served as a consent agreement (Appendix C)—and a link to the survey instrument. One week after the first distribution of the survey, a follow-up notice (Appendix D) was sent to those potential participants who had not yet responded. Using the library feature in Qualtrics, the reminder email was sent only to those who had not completed the survey, while keeping participants anonymous.

The population parameters for this study were all secondary agriculture teachers in the United States during the 2017–18 school year. The individuals who did not meet the population parameters (SBAE teachers teaching agriculture classes in the 2017–18

school year) were excluded from analysis. In total, 3 participants did not meet the population parameter for the study and a total 29 participants emails “bounced”. Therefore, these participants were removed from the database prior to the analysis, and I considered this to be the frame and coverage error.

After making these adjustments, 134 surveys were collected, with a total of 514 potential participants, yielding a response rate of 25.68% ( $n = 132$ ). The ideal method to deal with non-response bias is to contact non-respondents by telephone to collect specific data (Lindner et al., 2001; Miller & Smith, 1983). However, because the frame consisted of names and emails only, contacting respondents via telephone was not an option. Lindner et al. (2001) suggested that in this case, the next best thing to do is use late respondents' data and treat it as the data from non-respondents. The variables of interest for this study included age, years of teaching experience, number of teachers in the program, community type, and expectancy, value, and intentions to use volunteers. I found no statistical differences between on-time and late respondents for all of the variables of interest ( $p$ -value  $> .05$ ). Therefore, I considered non-response error to be insignificant to this study (Lindner et al., 2001; Miller & Smith, 1983).

Prior to collecting data, I submitted a proposal to the IRB office consisting of the initial application and protocol, data collection instrument, and all letters to be sent to participants. I followed IRB regulations and ethical research procedures to ensure no physical, emotional, or psychological harm would be inflicted upon the participants. Further, I followed IRB protocols set forth to insure confidentiality of participant information and responses.

## Data Analysis

The data, collected through Qualtrics™, were downloaded into the Statistical Package for Social Science (SPSS) version 24 for analysis. The raw data in SPSS were transformed in a systematic way in order to analyze the data according to the research questions for this study. I clarified each variable by running frequency counts, checking and coding for missing values, and labeling variables and values. All missing data was coded as missing so that analyses would not recognize missing data as data points, which would lead to error.

Before conducting data analyses, I explored the assumptions of parametric data as well as the specific assumptions of regression analyses. Regarding the assumptions of parametric data, I found the variances to be the same throughout the data and the data to be independent. However, three variables (total number of volunteers, total volunteer hours, and number of SBAE teachers in the program) did not meet the assumption of normality, and these variables required special attention before data analysis could be conducted.

The issue of normality existed among the variables due to extreme outliers. To deal with this issue, I trimmed and replaced outlier values with the value of the most extreme response, a method called the semi-Winsorized approach (Guttman & Smith, 1969; Moyer & Geissler, 1991). According to Guttman and Smith (1969), Winsorized means are robust estimators of the population mean that are insensitive to outlying values. Moyer and Geiser (1991) suggest, “1% of the data should be replaced to avoid excessive bias” (p. 269). Using these recommendations, I trimmed and replaced extreme outlier values and found the transformed data to be normally distributed.

To examine the assumptions associated with regression analysis, I explored variable types, non-zero variance, collinearity between independent variables, homoscedasticity, independent and normally distributed error, and linearity between predictor and outcome variables. I found the data met all of the assumptions of regression except for no collinearity. According to many (Belsley, Kuh, & Welsch, 1980; Field, 2009; Hair, Black, Babin, Anderson, & Tatham, 2006), when predictor variables correlate higher than .80 or .90, collinearity exists. In the present study, relationships between three variables produced correlation coefficients higher than .80. These three relationships included 1) years teaching in the community and years of teaching experience ( $r = .86$ ), 2) expectancy and value ( $r = .81$ ), and 3) age and years of teaching experience ( $r = .80$ ).

To deal with the issue of collinearity, I entered all of the independent variables into the two regression models (total volunteer hours and total number of volunteers as dependent variables) and examined the multicollinearity diagnostics (VIF, tolerance factor, standardized betas). Based on the analysis, age, expectancy, and years teaching in the community were removed (VIF above 3.0; low betas; tolerance factors below 0.4) (Hair et al., 2006).

Descriptive statistics were used to analyze research questions 1 through 4. Correlational statistics, including multiple linear regression, were utilized to analyze research question 5. The analytical approach for each research question were as were as follows. Descriptive statistics were used to determine the SBAE teacher and program characteristics and current volunteer utilization among SBAE teachers. I utilized frequencies, percentages, means, and standard deviations to report the findings for the different characteristics. The number of volunteers listed from each specific category

were added together for a total number of volunteers involved in SBAE programs as well as those serving in each individual role. The hours associated with the identification of these volunteers were summated for a total number of contributed hours. I utilized frequencies, percentages, means, and standard deviations to report the findings for current utilization among SBAE teachers. Descriptive statistics were used to determine perceived barriers, benefits, and beliefs about SBAE volunteers. Scaled (continuous) data was obtained from the survey instrument, a 6-point scale. Items were summated in order to develop the constructs of expectancies and values. I reported frequencies, percentages, means, and standard deviations to communicate the findings. As constructs were developed, I conducted a reliability analysis to determine if the constructs were reliable (Chronbach's  $\alpha = >.70$ ) (see Table 1). Descriptive statistics were used to determine intentions of SBAE teachers to utilize volunteers in the next three years. Scaled (continuous data) was obtained from the survey instrument (6-point scale). I reported frequencies, percentages, means, and standard deviations to report the findings (see Table 1).

Two regression analyses were conducted to determine which teacher and program characteristics and perceptions of SBAE teachers related to current and future volunteer utilization. The dependent variables in the regression analysis were current total volunteer hours and current total number of volunteers. A total of six variables were entered into the two regression analyses. The independent variables in the regression analysis were gender, personality type, total years of teaching experience, number of agriculture teachers in the program, school location type, values. According to Green (1991), to ensure sufficient power when testing a model using regression analysis, a minimum

sample size of should be  $50 + 8k$  where  $k$  is the number of predictors. Green also suggested that when testing individual predictors, the minimum acceptable sample should be  $104 + k$ . With six variables being entered into the regression analysis, the minimum acceptable sample size was 98 respondents to test to the model and 110 for cases of data for the regression analyses. Betas, standardized betas, and overall  $R^2$  were reported for the two regression analyses.

## CHAPTER IV

### RESULTS AND FINDINGS

The purpose of this study was to determine the relationships between perceptions held by school-based Agricultural Education (SBAE) teachers and volunteer utilization in the United States. An additional focus of this study was to determine the intentions of SBAE teachers to increase their use of volunteers within the next three years. The population for the study consisted of a simple random sample of SBAE teachers during the 2017–18 school year. The study was guided by the following research questions:

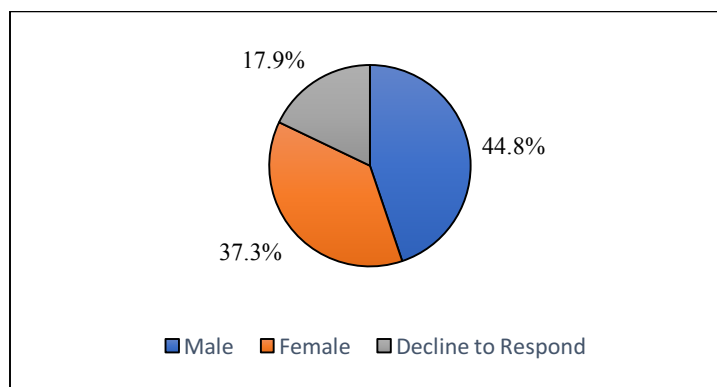
1. What are the demographic characteristics of SBAE teachers and programs in the United States?
  - a. What are the personal characteristics of SBAE teachers?
  - b. What are the SBAE program characteristics?
2. What is the current utilization of volunteers in SBAE programs in the United States?
  - a. What type of organizational structure do current volunteer programs use?
  - b. How much teacher interaction with volunteers is there?
  - c. Who are the volunteers involved in SBAE programs and how many hours do they serve?
  - d. What roles do volunteers assume in SBAE programs and how often?
3. What are the perceptions and beliefs of SBAE teachers regarding volunteer utilization within SBAE programs in the United States?
  - a. What are the perceived benefits of SBAE teacher regarding volunteer utilization?



- b. What are the perceived challenges and barriers of SBAE teachers regarding volunteer utilization in SBAE programs?
  - c. What are the general beliefs (expectancies and values) of SBAE teachers towards volunteers in SBAE programs?
4. What are the intentions of volunteer utilization among SBAE teachers in the United States?
5. What is the relationship between volunteer utilization and selected teacher/program characteristics and perceptions of SBAE teachers?

### **Research Question #1**

Research question one was designed to identify the personal characteristics of the SBAE teachers and programs that utilized volunteers. Questions included demographic information about each SBAE teacher's time in the community, age, gender, years teaching, and if the teacher self-identified as an introvert or extrovert. Personality type was self-identified by each participant, with 43% identifying as an introvert and 57% as an extrovert. Of the respondents, 37.3% were female and 44.8% were male, with 17.9% declining to respond. Figure 3 represents the percentages of female and male respondents in the study.



*Figure 3. Gender of SBAE respondents (n =136)*

The age of participants ranged from 22 to 66 years old. For ease of reporting, these ages were grouped into six intervals based upon the range of ages. Table 2 shows the breakdown of respondents by age group. The mean age was 38.31 with a standard deviation of 11.89. Over 40% of the participants were younger than age 35, while only 1.06% were age 65 or older. When comparing males to females, female agriculture teachers tended to be of younger age than their male counterparts. Over 17% of respondents declined to respond. Table 2 shows the breakdown of participants by age and gender.

The time a teacher spent in the community was identified in two questions: how long the teacher had lived in the community, and if the teacher lived in the community before teaching. From the survey, 42.7% participants ( $n=110$ ) identified that they did live in the community before being hired by the school district, while 57.3% reported that they had not live in the community before being hired by their school district.

Number of years teaching was reported by participants using a whole number without decimals. Table 3 shows the grouped percentages and frequencies of the number of years working as an SBAE teacher.

Table 2

*Distribution of Age for Respondents by Gender (n = 94)*

Age of Respondent	Female		Male		Total	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Total	44	46.81	50	53.19	94	100.00
Under 25	13	13.82	1	1.06	14	14.89
25-34	13	13.82	11	11.70	24	25.53
35-44	12	12.77	18	19.15	30	31.91
45-54	5	5.32	7	7.45	12	12.77
55-64	1	1.06	12	12.77	13	13.82
65 and older	0	0.00	1	1.06	1	1.06

Table 3

*Distribution of Years Teaching (n = 132)*

Number of Years Teaching Agriculture	Total	
	<i>f</i>	%
1-5	44	33.33
6-10	23	14.42
11-15	13	9.85
16-20	16	12.12
21-25	6	4.55
26-30	11	8.33
31 or more	4	3.03

Table 4 shows the frequency and percentage of how many years the SBAE teachers had spent as a teacher in the communities in which they currently teach. The

community type reported by the SBAE teachers ( $n = 111$ ) was 9.9% urban, 31.5% suburban, and 58.6% rural (See Figure 4).

Table 4

*Years Spent Teaching Agriculture in the Community ( $n = 110$ )*

	Total	
	<i>f</i>	%
1-5 years	44	40.0
6-10 years	13	11.82
11-15 years	13	11.82
16-20 years	16	14.55
21-25 years	6	5.55
26-30 years	11	10.00
30 or more years	7	6.35

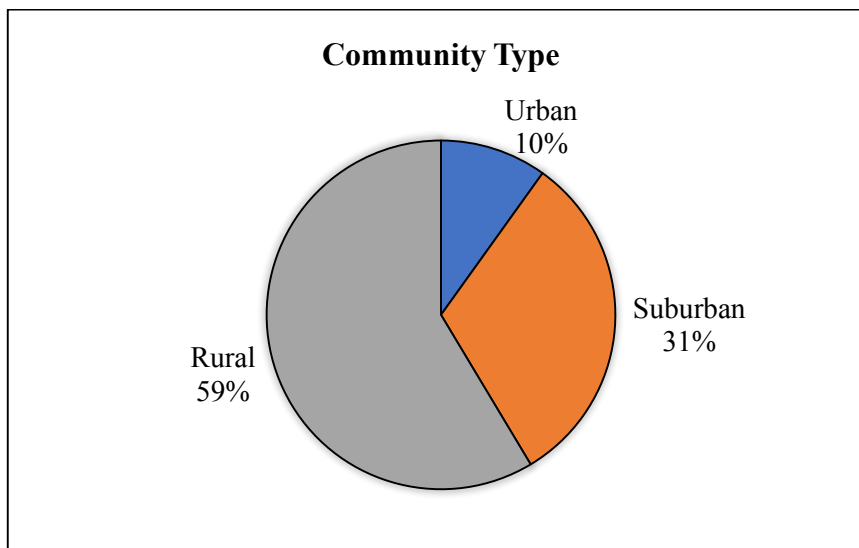


Figure 4: Type of community in which the school is located

The number of SBAE teachers within the SBAE program was reported in Table 5. Frequencies and percentages were reported in five categories which represent the characteristics of SBAE teachers in the program.

Table 5

*Number of Teachers in the SBAE Program (n = 111)*

Number of Agriculture Teachers	Total	
	<i>f</i>	%
1 Agriculture Teacher	55	49.50
2 Agriculture Teachers	33	29.72
3-5 Agriculture Teachers	17	15.31
6-10 Agriculture Teachers	5	4.50
11 or more Agriculture Teachers	1	0.90

### Research Question # 2

Participants were asked to indicate how many hours volunteers had invested in their SBAE program within the last twelve months. Responses ranged from 0 to 100 hours. The mean number of hours invested in the volunteer program by SBAE teachers during the last twelve months was 83.35 ( $SD = 67.17$ ).

Participants indicated the type of volunteers who contributed to the SBAE and how many hours those volunteers worked with the program in the last twelve months. When computing the means of hours worked by specific types of volunteers, parents of current students were the most common type of volunteer and contributed the highest amount of hours ( $M = 37.45$ ;  $SD = 43.60$ ). Table 6 shows the number of hours contributed by each type of volunteer to SBAE programs in the United States. Table 7

shows the frequencies and percentage of the different types of volunteers in SBAE programs in the United States.

Table 6

*Hours Contributed by Volunteer Type*

Volunteer Type	Rank	<i>M</i>	<i>SD</i>
Parents of Current Students	1	37.45	101.57
Community Members	2	30.24	46.70
Former Students	3	28.68	42.34
Local Business Partners	4	27.07	81.75

Table 7

*Types of Volunteers in SBAE Programs in the United States and Numbers*

Number of Volunteers	Former Students		Parents of Current Students		Community Members		Local Business Partners	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Total	82	100	102	100.0	95	100.0	70	100.0
Under 10	61	74.4	29	28.4	29	30.6	29	30.6
10-19	19	23.2	25	24.5	22	23.2	22	23.2
20-29	2	3.7	12	11.8	16	16.8	16	16.8
30-39	1	1.2	10	9.8	10	10.5	10	10.5
40-49	-	-	8	7.8	5	5.3	5	5.3
50-59	-	-	5	4.9	2	2.0	2	2.0
60-69	-	-	1	1.0	1	1.1	1	1.1
70 or more	-	-	12	11.8	10	10.5	10	10.5

Table 8 shows the frequency in which volunteers take on various roles with the SBAE program.

Table 8

*Roles of Volunteers in School-based Agricultural Education (n = 110)*

Roles of Volunteer in SBAE Programs	<u>Never</u>		<u>Seldom</u>		<u>Often</u>		<u>Frequently</u>	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Serve on an Advisory Committee	17	14.8	17	14.8	30	26.1	51	44.3
Assist with Career Development Events	16	13.8	23	19.8	45	38.8	32	27.6
Fundraising	14	12.1	24	17.9	49	42.2	29	25.0
Chaperone Field Trips	18	15.5	24	20.7	46	39.7	28	24.1
Assisting with SAE Experiences	15	12.9	35	30.2	45	38.8	21	18.1
Provide Assistance with Serving Food	19	16.4	32	27.6	45	38.8	20	17.2
Guest Lecturer	20	17.2	34	29.3	48	41.4	14	12.1
Recruitment of New FFA Members	29	21.6	40	29.9	38	32.8	9	7.8
Coordinating FFA Events	46	39.7	33	28.4	28	24.1	9	6.7
Administrative/Office Support	54	46.6	30	25.9	20	17.2	12	10.3
Other	9	60.0	-	-	4	26.7	2	13.3

### Research Question #3

Research question three sought to analyze the perceptions and beliefs that SBAE teachers hold toward volunteer utilization. Teachers were asked to indicate their level of

agreement with statements of benefits (see Table 9). Participants indicated the three items with the highest level of agreement for which the volunteers benefit the SBAE program were, “They advocate for my local program,” “They assist with building community support for my program,” and “They assist with school and community activities.” Participants indicated the two items with the lowest level of agreement (disagree) for which the volunteers benefit the SBAE program were, “They assist with FFA award applications,” and “They provide administration/office support.”

The following items had the lowest level of agreement by SBAE teachers regarding the challenges of volunteer involvement in the SBAE program (see Table 10): “The system associated with volunteers is a burden (background check, district oversight, policies)”, “Volunteers try to take over my program”, “Volunteers require too much of my time”, “The values and opinions of volunteers do not align with my values and direction for the program”, “I do not know how to organize a group of volunteers”, “They lack the ability or knowledge to contribute to my program”, and “Volunteers diminish the quality of my teaching.”



Table 9

*Benefits of Utilizing Volunteers in SBAE Programs (n = 112)*

Volunteers are beneficial to my agricultural program because...	<u>Disagree</u>		<u>Agree</u>		<i>M<sup>a</sup></i>	SD
	<i>f</i>	%	<i>f</i>	%		
They advocate for my local program	4	3.6	108	96.4	5.20	0.97
They assist with building community support for my program	5	4.5	107	95.5	5.20	0.93
They assist with school and community activities	11	9.8	101	90.2	4.82	1.19
They provide guidance for the program (Advisory Committee)	11	9.8	101	90.2	4.66	1.14
The assist with CDE/livestock shows	17	15.2	95	84.8	4.61	1.29
They assist with SAEs	19	17.0	93	83.0	4.54	1.27
They assist with fundraising	22	19.6	90	80.4	4.51	1.42
They help supervise students	21	18.8	91	81.2	4.44	1.27
The allow me to offer more events	23	20.5	89	79.5	4.28	1.26
They make my job easier	24	21.4	88	78.6	4.22	1.31
They assist with coordinating FFA events	32	28.6	80	71.4	4.14	1.45
They allow me to focus on other aspects of my program	37	33.0	75	67.0	4.05	1.33
They reduce my workload	38	33.9	74	66.1	3.82	1.44
Assist with maintaining facilities and equipment	46	41.1	66	58.9	3.81	1.41
They assist with recruitment efforts	39	34.8	73	65.2	3.73	1.46
They assist with FFA awards applications	59	52.7	53	47.3	3.30	1.41
They provide administrative / office support	62	55.4	50	44.6	3.12	1.53

Table 10

*Challenges of Utilizing Volunteers in SBAE Programs (n = 134)*

Volunteers in my agricultural program are challenging because...	<u>Disagree</u>		<u>Agree</u>		<i>M<sup>a</sup></i>	SD
	<i>f</i>	%	<i>f</i>	%		
The system associated with volunteers is a burden (background check, district oversight, policies)	60	44.8	74	29.0	3.15	1.49
Volunteers try to take over my program	69	51.5	65	35.8	3.06	1.42
Volunteers require too much of my time	69	51.5	65	29.4	3.00	1.31
The values and opinion of volunteers do not align with my values and direction for the program	86	64.2	48	39.4	2.64	1.18
I do not know how to organize a group of volunteers	93	69.4	41	42.2	2.24	1.19
They lack the ability or knowledge to contribute to my program	93	69.4	41	33.9	2.24	1.15
Volunteers diminish the quality of my teaching	105	78.4	29	34.9	2.16	0.92

The expectation and value that SBAE teachers place on volunteer utilization were both measured on a 6-point scale, each with three statements. The expectation construct mean was 4.78 ( $SD = 0.95$ ) while the value construct mean was 4.88 ( $SD = 0.84$ ). These means indicate that overall, SBAE teachers agree volunteers are valuable and they expect volunteers to contribute positively to the program.

### Research Question # 4

Research question four sought to identify the intentions of SBAE teachers to utilize volunteers within the next three years (see Table 11). Teachers were asked to indicate their level of agreement with three statements regarding their intention to utilize volunteers over the next three years. The statement, “Within the next 3 years, I plan to increase volunteer utilization in my agricultural education program” reported the highest mean ( $M = 4.78$ ;  $SD = .87$ ), followed by, “Within the next 3 years, I plan to increase the utilization of an Advisory Committee” ( $M = 4.72$ ;  $SD = 1.04$ ), and lastly, “Within the next 3 years, I plan to increase the utilization of a Chartered FFA Alumni Chapter” ( $M = 4.29$ ;  $SD = 1.32$ ).

Table 11

*SBAE Teacher Intentions to Utilize Volunteers in the Next Three Years (n = 109)*

Volunteers in my agricultural program are challenging because...	<u>Disagree</u>		<u>Agree</u>		$M^a$	SD
	<i>f</i>	%	<i>f</i>	%		
Volunteer utilization in my agricultural education program	37	33.9	72	66.1	4.78	0.87
The utilization of a chartered FFA Alumni	22	20.2	87	79.8	4.29	1.32
The utilization of an Advisory Committee	11	10.1	98	89.9	4.72	1.04

### Research Question # 5

Research question #5 sought to determine the relationship between volunteer utilization and teacher and program characteristics. I used forced entry multiple linear regression to conduct two separate analyses. Specific variables for the two regression analyses were selected based on previous literature. Because the focus of this research was concerned with volunteer utilization within SBAE programs with theoretical underpinnings of the expectancy-value theory (perceptions of agriculture teachers towards volunteers) predictor variables that related to utilization of volunteers within SBAE were utilized.

The first regression analysis sought to determine the relationship between current total volunteer hours and selected SBAE and personal characteristics (see Table 12). The independent variables were gender, years teaching, number of agriculture teachers in the SBAE program, personality type, school location, and value. School location were dummy coded as 0 “urban/suburban” and 1 “rural.” Gender was also dummy-coded as 0 “female” and 1 “male.” The independent variables, in combination, comprised a non-significant model ( $F = 1.79$ ;  $p$ -value = .125). However, the model did predict 20% ( $R^2 = .20$ ) of the variance in total volunteer hours. None of the predictor variables were significant in their prediction of volunteer hours.

Table 12

*Predictive Model of Variables Influencing Total Number of Volunteer Hours*

Variable <sup>1</sup>	Dependent Variable: Total Volunteer Utilization					
	Zero-order correlation ( <i>r</i> )	<i>p</i> -value	<i>B</i>	<i>SEB</i>	$\beta$	<i>p</i> - value
Gender	-.171	.120	-31.65	-.229	-.229	.119
Years of teaching experience	.067	.324	.928	.191	1.25	.857
Personality type	.237	.051	28.99	18.95	.216	.134
Location of worksite school	-.140	.168	-.488	20.13	-.004	.979
Number of agriculture teachers in the program	.283	.024	11.10	6.84	.296	.112
Value	-.130	.186	.10.34	12.41	-.121	.399

Note.  $R = .451$ ,  $R^2 = .20$ ,  $F = 1.79$ ,  $p$ -value = .125.

<sup>1</sup> Value items scaled from 1 “Strongly Disagree” to 6 “Strongly Agree.” Gender coded 0 = female, 1 = male. Personality Type 0 = Introvert, 1 = Extrovert. Location of worksite school coded 0 = urban/suburban, 1 = rural.

The second regression analysis sought to determine the relationship between total number of volunteers utilized and selected SBAE and personal characteristics (see Table 13). The independent variables were gender, years teaching, number of agriculture teachers in the SBAE program, personality type, school location, and value. School location were dummy coded as 0 “urban/suburban” and 1 “rural.” Gender was also dummy-coded as 0 “female” and 1 “male.” The independent variables, in combination, comprised a non-significant model ( $F = 2.22$ ;  $p$ -value = .060). However, the model did predict 25% ( $R^2 = .25$ ) of the variance in total number of volunteers. Using the standardized coefficients ( $\beta$ ) to determine the strength of the relationship between independent and dependent variables, I found personality type to be the strongest

predictor of total number of volunteers utilized ( $\beta = .33$ ;  $p$ -value  $\leq .021$ ). No other predictor variables were significant.

Table 13

*Predictive Model of Variables Influencing Total Number of Volunteers Utilized*

Variable <sup>1</sup>	Dependent Variable: Total Volunteer Utilization					
	Zero-order correlation ( $r$ )	$p$ -value	$B$	$SEB$	$\beta$	$p$ -value
Gender	-.057	.350	-9.70	12.98	-.11	.462
Years of teaching experience	.154	.147	.918	.593	.231	.130
Personality type	.330	.011	28.94	12.06	.333	.021*
Location of worksite school	-.80	.294	2.96	12.75	.042	.571
Number of agriculture teachers in the program	.249	.044	6.78	4.33	.282	.125
Value	-.173	.119	-8.46	7.77	-.153	.282

Note.  $R = .495$ ,  $R^2 = .25$ ,  $F = 2.22$ ,  $p$ -value  $< .060$ .

<sup>1</sup> Value items scaled from 1 "Strongly Disagree" to 6 "Strongly Agree." Gender coded 0 = female, 1 = male. Personality Type 0 = Introvert, 1 = Extrovert. Location of worksite school coded 0 = urban/suburban, 1 = rural.

\* $p < .05$

## CHAPTER V

### CONCLUSIONS AND RECCOMENDATIONS

The purpose of this study was to identify the perception and utilization differences held by School-Based Agricultural Education (SBAE) teachers in the United States. An additional focus of this study was to determine the intentions of SBAE teachers to increase their use of volunteers within the next three years. The population for the study consisted of a simple random sample of SBAE teachers during the 2017–18 school year. The study was guided by the following research questions:

1. What are the demographic characteristics of SBAE teachers and programs in the United States?
  - a. What are the personal characteristics of SBAE teachers?
  - b. What are the SBAE program characteristics?
2. What is the current utilization of volunteers in SBAE programs in the United States?
  - a. What type of organizational structure do current volunteer programs use?
  - b. How much teacher interaction with volunteers is there?
  - c. Who are the volunteers involved in SBAE programs and how many hours do they serve?
  - d. What roles do volunteers assume in SBAE programs and how often?
3. What are the perceptions and beliefs of SBAE teachers regarding volunteer utilization within SBAE programs in the United States?
  - a. What are the perceived benefits of SBAE teacher regarding volunteer utilization?

- b. What are the perceived challenges and barriers of SBAE teachers regarding volunteer utilization in SBAE programs?
  - c. What are the general beliefs (expectancies and values) of SBAE teachers towards volunteers in SBAE programs?
4. What are the intentions of volunteer utilization among SBAE teachers in the United States?
5. What is the relationship between volunteer utilization and selected teacher/program characteristics and perceptions of SBAE teachers?

## **Conclusions**

### **Research Question #1**

This research question sought to describe the personal and program characteristics of SBAE teachers in the United States during the 201-2018 academic year. Regarding personal characteristics, of the 134 SBAE teachers participating in this study, 37.3% were female and 44.85 were male with 17.9% declining to respond. With regard to the age of participants female SBAE teachers tended to be of younger age than male agriculture teachers. With 27.64% of the population reporting to be female and under the age of 34 years old. The program characteristics found were that 58.6% of the respondents were located in rural communities while 31.5% identifies as suburban communities and 9.9% were located in urban communities. It was also identified that 49.5% of respondents worked as single teacher programs.

Females comprised 37.3% of the respondents in this study, which is consistent with research over the past decade indicating the increasing proportion of female



agriculture teachers into the profession (Camp et al., 2002; Foster et al., 2014; Kantrovich, 2007, 2010; Knight, 1987). The changing demographic trends in the American workforce, where more women are entering the workforce than ever before. It should also be noted that females were younger than the male agricultural teachers, which supports the findings of previous studies that have found an increase on female agricultural education teachers entering the field (Camp et al., 2002; Foster et al., 2017; Kantrovich, 2007, 2010; Knight, 1987; Sorensen et al., 2016).

### **Research Question #2**

Research question two sought to determine the current utilization of volunteers in SBAE programs in the 2017-2018 school year. Parents of current students were the most utilized type of volunteer followed by community members, and former students. Parents of current students also contributed this highest number of hours in the last twelve months ( $M = 37.45$ ). The most commonly utilized role of volunteers by SBAE teachers was serving on an Advisory Committee followed by assisting with career development events (CDE).

SBAE teachers do utilize volunteers in their programs, in many different roles. There were a few roles that SBAE teachers disagree that volunteers should assume and they were working in administrative/office support role and helping with FFA award applications. This may stem from an attitude that these tasks should only be completed by the SBAE teacher.

Different types of stakeholders are utilized as volunteers, including former students, parents of current students, community members, and business partners. Overall, parents of current students were reported to be the most frequent type of

volunteer ( $M = 37.45$ ) followed by former students ( $M = 28.68$ ). Using parents in the agricultural education program might be out of convenience, or perhaps the parents wanting to be involved in their children's education. It is unclear if recruitment efforts are put forth to solicit volunteers in the SBAE program.

On average, the SBAE teachers utilize volunteers for approximately 121 hours in twelve months. Considering the duration of a school year, this is not an extraordinary amount of time. Goode and Stewart (1981) found agriculture teachers in 1981 worked an average of between 54 and 58 hours per week; therefore, it may be beneficial for SBAE teachers to expand their utilization of volunteers. It was found that on average SBAE teachers used between six and seven volunteers within those last twelve months. In other words, 121 SBAE hours would convert to a mere ten days that volunteers were utilized at Career Development Events (CDE). This is based on the calculation that an SBAE teacher will spend twelve hours traveling and participating in a CDE. One can also consider after taking in consideration of total volunteers used, each volunteer is contributing approximately one hour each week for one full semester.

Parents of current students and community members consistently contributed the highest of amount of hours and the highest number of individual volunteers to the SBAE programs. This seems logical considering that previous students may be employed, attending post-secondary education, in the military or not interested in assisting in the high school program. It seems that local business partners support through financial means, and through SAE opportunities more than contributing time to the SBAE program.

Parents of current students acting as volunteers in SBAE programs is supported by previous literature focused on parental involvement at all levels of a child's education.

The relationship between parental involvement may be contributed to the social control a parent gains while volunteering for activities in which their child participates. This relationship make it easier for parents to monitor an adolescent's behavior and the SBAE program practices when they are actively involved (Domina, 2005).

### **Research Question #3**

Research question three sought to analyze the perceptions and attitudes of SBAE teachers toward the utilization of volunteers. Variables of interest included, perceptions of benefits, challenges, and roles that volunteer bring to the SBAE program. Overall, SBAE reported that volunteers positively benefit the SBAE program. They seemed to agree that volunteers were most beneficial as advocates for the program and assisting with building community support. Participants did not seem to indicate that volunteers benefit the program in terms of administrative and office support (i.e., paperwork), FFA award applications, recruitment efforts, and assisting with facilities and maintaining equipment. As SBAE tend to spend many hours doing some of these duties, perhaps volunteers could be of more use if teachers were more willing to relinquish and delegate some of the duties elsewhere.

SBAE teachers were also asked to self-report the challenges of using volunteers in SBAE programs. The challenges of utilizing volunteers were overwhelmingly positive and seems to suggest that agriculture teachers do not view volunteer utilization as a challenge, but rather as a benefit. There is an overall positive outlook of volunteers in the SBAE program from the SBAE teacher.

The challenges that SBAE teachers perceived to be the greatest was the system and paperwork that was required when utilizing volunteers. In the current academic

climate, there does not seem to be a solution at hand to avoid paperwork, especially when employing volunteers to work with the youth in the SBAE programs. SBAE teachers will need to be proactive in developing solutions in order to mainstream this process. National, state and local administration could also play a vital role in developing solutions to ease the burden of processing paperwork in order for teachers to utilize volunteers.

Expectations that SBAE teachers hold in order to be motivated to utilize volunteers need to be positive. Examining the data after SBAE teachers self-reported their expectations of volunteers is positive, because the thought of volunteer utilization is feasible based on their expectations. SBAE teachers expect that volunteers will contribute towards accomplishing a task, and therefore towards the success of the program. This does lead to the question of why SBAE teachers are not utilizing volunteers in a more encompassing way. There was a consensus among the participants that administrative/office work and FFA award applications were tasks that volunteers did not participate in. Does this mean that volunteers are not helpful in this area of SBAE programs? Or, are these tasks something that SBAE teachers are unwilling to delegate?

Overall, it was found that SBAE teachers responded positively to using volunteers in their programs, which led to the expectation that volunteers in SBAE programs are expected to contribute towards the programs' achievements (Wigfield, 1994).

Regarding the roles that volunteers play in the SBAE program, it seems that agricultural education teachers are indifferent to the what the volunteers are helping with. The majority of responses from this survey showed that no matter the role the volunteer

played, the SBAE teacher either slightly agreed or slightly disagreed that the volunteer was contributing and helpful.

#### **Research Question #4**

Overall volunteer utilization and advisory committee utilization had higher levels of intention than that of utilizing an alumni chapter in the SBAE program. Perhaps this is due to the fact that for decades, agricultural education textbooks have focused heavily on advisory committees with little regard to volunteers assisting the program in other ways.

#### **Research Question #5**

Research question five sought to determine the relationships between volunteer utilization and selected teacher/program characteristics and perceptions of SBAE teachers in the United States. Based on the information that this survey provided, there was no significant relationship between volunteer utilization and perceived beliefs found. In this research, only one significant relationship between volunteer utilization and SBAE teacher characteristics was found. It became evident that one personality type was more receptive to utilizing volunteers in their program. Extroverted personalities chose to utilize volunteers at a higher rate than the individuals with an introverted personality. There were no other significant relationships found between the SBAE teacher and why they utilized or did not utilize volunteers. Personal characteristics, program characteristics, and demographics of the volunteers did not seem to create a significant correlation in any area of these relationships.

## Recommendations

The following areas are recommended for future policy and practice:

1. In order to create a balance in gender among SBAE teachers in the United States, an increased effort to recruit student of diverse background that better represent the current population in the nation is required. These efforts should focus on the decrease in male students entering the profession.
2. Published materials and workshops regarding volunteer utilization should be developed and provided as a part of SBAE teachers' professional development training. Since the perceptions and values regarding volunteers is generally positive among SBAE teachers, it should be noted that professional development should be focused on increased efficiency when utilizing volunteers, not on how to create positive experiences with SBAE program volunteers.
3. Teacher preparation programs should find a way to meet the needs of potential agriculture teachers with incorporating the community support into the SBAE programs. With a shortage of teachers in agricultural education, the profession should make more of an effort to work with potential teachers to reduce the number of responsibilities and teach delegation strategies.
4. With the negative view of volunteers assisting with administrative tasks in the SBAE programs, school administrators, policymakers, and the agricultural education profession should work to create and promote policies that reflect a culture that supports delegating paperwork to others both within agricultural education and within local schools and districts.

5. Qualitative research exploring the interface between volunteer and the agricultural education teacher in SBAE programs could provide insight into the perceptions that SBAE teachers hold with volunteers.
6. Research should be conducted exploring the culture within agricultural education departments to identify specific cultural practices and artifacts that both enable and discourage utilizing volunteers in the SBAE program.
7. In an effort to increase teacher retention, more research in agricultural education should be conducted to explore the relationship between volunteer utilization in relation to time SBAE teachers spend in the classroom.
8. Research should be conducted involving community characteristics in order to gain more understanding in why volunteers choose to contribute towards SBAE programs.
9. Research involving SBAE teachers should be conducted to delve deeper into why they would choose to utilize volunteers in their program.

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## **APPENDICES**

Appendix A

An Examination of Volunteers in School-based Agricultural Education  
in the United States Survey



## **An Examination of Volunteers in School-based Agricultural Education in the United States Survey**

### **Purpose**

You are invited to participate in a research study conducted by Tyson Sorensen and Ashley Cromer in the School of Applied Sciences, Technology and Education at Utah State University. The purpose of this research is to evaluate the attitude that agricultural educators hold towards volunteers in regards to improve volunteer utilization practices, and professional development related to volunteers. This form includes detailed information on the research to help you decide whether to participate in this research study. Please read it carefully and ask any questions you have before you agree to participate.

### **Procedures**

Your participation will involve taking one online survey, which should take approximately 10 minutes.

### **Risks**

This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities. To reduce the potential risk of lost confidentiality, research records will be kept consistent with federal and state regulations. You are not asked for your name in the evaluation.

### **Benefits**

There is no direct benefit to you for participating in this research study. More broadly, this study will help the principal investigator in evaluating workshop effectiveness and future expansion of professional development related to the utilization of volunteers in school-based agricultural education program.

### **Confidentiality**

The principal investigator will make every effort to ensure that the information you provide as part of this study remains confidential. You are not asked your name in the survey at any time. The data from the survey will be entered into SPSS for data analysis. The SPSS data file will be securely stored in a restricted-access folder on Box.com, an encrypted, cloud-based storage. It is unlikely, but possible, that others (Utah State University or state or federal officials) may require me to share the information you give me from the study to ensure that the research was conducted safely and appropriately. I will only share your information if law or policy requires me to do so.

### **Compensation**

For your participation in this survey, you will have the opportunity to provide your email

and name in a separate survey. This will enter you into a drawing for an Amazon gift card, worth \$50.00.

### **Voluntary Participation & Withdrawal**

Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time before the evaluations are collected. Completely anonymous participation cannot be withdrawn, as I will be unable to determine whose data is whose.

### **IRB Review**

The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigator, Tyson Sorensen at 435-797-5741 or tyson.sorensen@usu.edu. If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

Thank you,

Ashley Cromer  
Graduate Assistant

Dr. Tyson Sorensen  
Utah State University

- I agree to participate in this study
- I Do Not Agree to Participate in this study

Thank you for taking the time to complete this important survey! Your input is a valuable contribution to your profession and fellow agriculture teachers across the country.

Please complete each question as accurately as possible.

When you have completed the survey, a message screen will appear indicating successful completion.

Do not click the back button/arrow on your internet browser. Please use the “Back” and “Next” buttons to navigate through the survey

Please select the statement that best describes your work situation:

- I have a full-time teaching assignment to teach agriculture
- I do not have a full-time teaching assignment, but I do teach at least one agriculture class (e.g. part time)
- I do not teach any agriculture classes

In the past twelve months, did you utilize volunteers in your agricultural education program?

- Yes
- No

Do you have a FFA Alumni Chapter (National FFA Alumni)?

- Yes
- No

Do you have a functioning advisory committee for your local agricultural education program?

- Yes
- No

In the past twelve months, approximately **how many hours** did **you** spend working exclusively with your volunteers (e.g., training, planning, and meetings) without students?

(Please use a whole number, not a range)

Who are your volunteers? (Please check all that apply)

- Former Students
  - Parents of Current Students
  - Community Members (individuals, not businesses)
  - Local Business
  - Other
- 

In the past 12 months, about **how many hours** did former students contribute as volunteers in your program? (Please use a whole number not a range)

In the past 12 months, **how many** total former students volunteered?  
(Please use a whole number not a range)

In the past 12 months, about **how many hours** did parents of current students contribute as volunteers in your program? (Please use a whole number not a range)

In the past 12 months, **how many** total parents of current students volunteered?  
(Please use a whole number not a range)

---

In the past 12 months, about **how many hours** did community members contribute as volunteers in your program? (Please use a whole number not a range)

In the past 12 months, **how many** total community members volunteered?  
(Please use a whole number not a range)

---

In the past 12 months, about **how many hours** did business partners contribute as volunteers in your program? (Please use a whole number not a range)

In the past 12 months, **how many** total business partners volunteered?  
(Please use a whole number not a range)

---

In the past 12 months, about **how many hours** did “other” contribute as volunteers in your program? (Please use a whole number not a range)

In the past 12 months, **how many** total “other” volunteered?  
(Please use a whole number not a range)



---

How often do volunteers assume the following roles in your agricultural education program?

	Never	Seldom	Occasionally	Frequently
Administrative/Office Support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Serve on an advisory/program committee	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chaperone Students on Field Trips/FFA Events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assist with CDE events (Coaching, Judging, Hosting)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assist with student SAEs (Supervision, Technical Support)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coordinate FFA events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fundraising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guest Lecture/Instructor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide/Assist with activities serving food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recruiting future FFA members	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate the level of agreement for the following statements regarding benefits of using volunteers:

I believe that volunteers are beneficial to my agricultural education program because...















What is your age in years?

What is your gender?

- Female
- Male
- Other

Do you consider yourself to be an introvert or extrovert?

- Introvert
- Extrovert

Including the current year, how many years have you been employed as an agriculture teacher? (Please use a whole number)

Including the current year, how long have you been employed as an agriculture teacher **in your current community**? (Please use a whole number)

Before being hired by your current employer, did you live in the community that you currently teach in?

- Yes
- No

Including yourself, how many agriculture teachers are there in your school-based agricultural education program? (please use a whole number, not a range)

Which of the following best describes the location of the school where you teach?

- Urban
- Suburban
- Rural

Thank you for taking the time to complete this survey. The information you provided will contribute towards research that will help to improve the agricultural education industry.

---

Thank you for taking the survey! To show our appreciation for your time and effort in completing the survey, a lottery drawing of four \$50.00 gift cards to Amazon.com will be held. If you are interested in entering, please check the yes button below.

- YES, I am interested in being entered into the lottery drawing for a chance to win one of the gift cards.
  - NO, I am not interested in being entered into the lottery drawing
- 

Thank you for your time, in order to access the drawing please highlight and open the link below in a new tab. Then, please click the next button in this window to complete your survey. Thank you!

{ LINK }

Appendix B

Initial Contact Email



SUBJECT: Notification of an important upcoming agricultural education survey

Dear {NAME},

Agricultural Education needs your help! You have been selected to participate in a survey intended to better understand how volunteers are utilized in school-based agricultural programs as well as the benefits and the challenges of working with volunteers. By participating, you can help strengthen the agricultural education profession nationwide.

**In the next two days, you will receive an email asking you to participate in the Volunteer Utilization in School-based Agricultural Education Programs.** Please consider participating.

The 10-minute survey asks for your opinions and demographic information pertaining to how your school-based agricultural education program chooses to utilize volunteers. Your participation in the survey is completely voluntary. The results of the survey will be used in research that will help identify and shape recommendations regarding the use of volunteers in agricultural education programs.

To show our appreciation for your time and effort in completing the survey, you will have the chance to be entered into a drawing for a \$50.00 Amazon gift card (a total of four gift cards will be given out).

If you have any questions about the upcoming survey, please feel free to contact Ashley Cromer ([ashley.cromer@usu.edu](mailto:ashley.cromer@usu.edu)). Thank you in advance for helping to improve the profession.

Sincerely,

**Ashley B. Cromer**  
Graduate Student  
Utah State University

**Tyson J. Sorensen**  
Assistant Professor  
Utah State University

Appendix C

E-mail with Survey Link and Consent Agreement

Dear {NAME},

You recently received an e-mail regarding your participation in an agricultural education research study aimed at better understanding how volunteers are utilized in school-based agricultural programs as well as the benefits and the challenges of working with volunteers. Your input is extremely valuable in guiding our efforts to improve the agriculture teaching profession.

The survey will take approximately 10 minutes. You will be able to exit the survey at any time and return to the spot you left off using the link in this e-mail (as long as you don't clear your browser history). Again, your responses are completely voluntary. The information you provide is very important and your participation is greatly appreciated.

For your convenience, below is a link to the survey,

{LINK}

To show our appreciation for your time and effort in completing the survey, you will have the chance to be entered into a drawing for a \$50.00 Amazon gift card (a total of four gift cards will be given out).

Sincerely,

**Ashley B. Cromer**  
Graduate Student  
Utah State University

**Tyson J. Sorensen**  
Assistant Professor  
Utah State University

## Letter of Information

### **Utilization of Volunteers in School-based Agriculture Education Programs**

#### **Purpose**

You are invited to participate in a research study conducted by Tyson Sorensen and Ashley Cromer in the School of Applied Sciences, Technology, and Education at Utah State University. The purpose of this research is to evaluate the attitude that agricultural educators hold towards volunteers in regards to improve volunteer utilization practices, and professional development related to volunteers. This form includes detailed information on the research to help you decide whether to participate in this research study. Please read it carefully and ask any questions you have before you agree to participate.

#### **Procedures**

Your participation will involve taking one online survey, which should take approximately 10 minutes.

#### **Risks**

This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities. To reduce the potential risk of lost confidentiality, research records will be kept consistent with federal and state regulations. You are not asked for your name in the evaluation.

#### **Benefits**

There is no direct benefit to you for participating in this research study. More broadly, this study will help the principal investigator in evaluating workshop effectiveness and future expansion of professional development related to the utilization of volunteers in school-based agricultural education program.

#### **Confidentiality**

The principal investigator will make every effort to ensure that the information you provide as part of this study remains confidential. You are not asked your name in the survey at any time. The data from the survey will be entered into SPSS for data analysis. The SPSS data file will be securely stored in a restricted-access folder on Box.com, an encrypted, cloud-based storage, and the paper surveys will be stored in a locked drawer in a restricted-access office until destroyed in May 2020. It is unlikely, but possible, that others (Utah State University or state or federal officials) may require me to share the information you give me from the study to ensure that the research was conducted safely and appropriately. I will only share your information if law or policy requires me to do so.

#### **Compensation**

For your participation in this survey, you will have the opportunity to provide your email and name in a separate survey. This will enter you into a drawing for an Amazon gift card worth \$50.

**Voluntary Participation & Withdrawal**

Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time before the evaluations are collected. Completely anonymous participation cannot be withdrawn, as I will be unable to determine whose data is whose.

**IRB Review**

The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigator, Tyson Sorensen at 435-797-5741 or [tyson.sorensen@usu.edu](mailto:tyson.sorensen@usu.edu). If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or [irb@usu.edu](mailto:irb@usu.edu).

Tyson J. Sorensen, PhD  
Utah State University  
Email: [Tyson.sorensen@usu.edu](mailto:Tyson.sorensen@usu.edu)

Ashley Cromer, Graduate Student  
Utah State University  
Email: [ashley.cromer@usu.edu](mailto:ashley.cromer@usu.edu)

## Appendix D

### Follow-Up Emails to Participants

Dear {Name},

You recently received an e-mail regarding your participation in a research study that may benefit agricultural education and agriculture teachers nationwide. Your participation will greatly help in understanding the benefits and challenges of using volunteers in school-based agricultural education programs.

The survey will take approximately 10 minutes. You will be able to exit the survey at any time and return to the spot you left off using the link in this e-mail. Again, your responses are very important and your participation is greatly appreciated. If you have already completed the survey, we want to express our sincere thanks for participation.

For your convenience below is a link to the survey,

{LINK}

To show our appreciation for your time and effort in completing the survey, you will have the chance to be entered into a drawing for a \$50.00 Amazon gift card (a total of four gift cards will be given out).

Sincerely,

**Ashley B. Cromer**  
Graduate Student  
Utah State University

**Tyson J. Sorensen**  
Assistant Professor  
Utah State University