DESCRIBING AGRICULTURE TEACHERS' UTILIZATION AND VIEWS OF SCHOOL-BASED AGRICULTURAL EDUCATION SUPPORTERS IN THE NORTHWESTERN UNITED STATES

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Authorization to Submit Thesis

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Abstract

The students of the United States require 21st century skills to remain marketable, employable, and productive citizens. With changing educational policy and decreased funding, how will society continue to meet the needs of 21st century learners? Educational leaders and researchers suggest that partnering with community stakeholders could be a solution. The purpose of this research study was to describe the school-based agricultural education program supporters in the Northwest and agriculture teachers' views of supporter involvement. Survey research methods guided the data collection. The researcher identified groups of supporters and the roles that they had in an agriculture program. Further, it was found that teachers view supporters as beneficial partners. Time was identified as a major barrier to further collaboration. The researcher recommended that professional development be offered for practicing teachers and that future research expand the line of inquiry on community-school-based agricultural education partnerships.

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Table of Contents

List of Figures

List of Tables

Chapter 1:

Introduction

"If we want America to lead in the 21st century, nothing is more important than giving everyone the best education possible – from the day they start preschool to the day they start their career" (The White House, Office of the Press Secretary, 2013). During his July 23, 2013 speech on the education and economy of the United States, President Barack Obama outlined the serious challenge that our education system faces today: how will society meet the needs of 21st century learners to provide each individual the best education possible? President Obama added, "we've got to rethink our high schools so that our kids graduate with the real-world skills that this new age demands (The White House, Office of the Press Secretary, 2013).

The United States Secretary of Education, Arne Duncan, expanded on the demand for a skilled workforce by addressing Career and Technical Education (CTE) specifically. During the 2013 National Meeting of the Association for Career and Technical Education, Duncan stressed that, "high-quality career and technical education is absolutely critical to meeting that challenge" (Duncan, 2013). Duncan's comments to CTE leaders echo the concern of President Obama: how will society meet the needs of 21st century learners?

CTE leaders, whose focus is on preparing students for the workplace and providing additional postsecondary training, share similar concern for the workers of the future. "The forecasted needs of the 21st century, the pace of technological change, demographics, the challenges of student engagement and achievement, and growing global competition have created an urgent need to reevaluate the trajectory and role of CTE in the United States" (Cotner & Folkers, 2012, p. 4).

In a recent call to action to address the needs of 21st century learners entitled, *The Career Pathways Effect: Linking Education and Economic Prosperity*, the Center for Occupational Research and Development (CORD) published the recommendations of CTE professionals from all walks of life. The National Association of State Directors of Career and Technical Education (NASDCTE) held a consortium where business and industry leaders, postsecondary experts, and teachers of CTE subjects combined efforts to develop a vision for students to succeed in education, their future careers, as well as influence the future of the United States workforce. The culmination of the NASDCTE consortium was five guiding principles developed to propel CTE into the future. Collaborators like Cotner and Folkers (2012), Mills and Whitney (2012), and Albrecht and Hinckley (2012) added chapters in the publication expanding on ways to make the principles a reality and keep CTE on the cutting edge.

According to Mills and Whitney (2012), "all Americans, not just an elite few, need 21st-century skills that will increase their marketability, employability, and readiness for citizenship" (p. 25). Cotner and Folkers (2012) expanded on this demand by adding the following:

> Nations need a skilled workforce at all levels and in all occupations to maintain a strong business and industrial activity and overall competitive living standard. They need an education system that provides well-rounded citizens and well-prepared scientists, engineers, technicians, and managers ready to add value to their professions and their lives. CTE's goal is to create that skilled workforce by giving students a variety of choices and opportunities, including Career Pathways, to enjoyable and rewarding careers (p. 9).

President Obama, Secretary of Education Duncan, and CTE leaders all have a shared vision for the future of the United States' education system. This vision is that the education system of the country needs to prepare a skilled workforce equipped with a unique skill set required for success in the 21st century. According to Mills and Whitney (2012), "one of the most basic responsibilities of any society is to prepare its young people to lead productive and successful lives as adults" (p. 11). United States labor markets no longer demand the same type of worker, resulting in an education system that no longer meets the needs of today's learners. As Mills and Whitney highlighted, "though such changes are normal, they can become crippling if not quickly addressed" (p. 14). The greatest challenge of 21st century public education and workforce is now addressing the needs of 21st century learners (Mills & Whitney, 2012).

Fortunately, there is a common thread that weaves throughout the visions of President Obama, Secretary of Education Duncan, and CTE leaders, creating a plan of action needed to achieve the demands of society. The thread is a collaborative education system involving community individuals that together, prepare students with the skills demanded by society. The comments and collaborations of President Obama, Secretary of Education Duncan, and CTE leaders support the use of community supporters in society's education system.

President Obama added after his call for action to increase the skills of our students that, "we've got to reward the schools that forge partnerships with local colleges and businesses, and that focus on the fields of the future like science and technology and math and engineering" (The White House, Office of the Press Secretary, 2013). During his comments to CTE stakeholders, Secretary of Education Duncan further described how,

"high schools, community colleges, employers, business leaders, parents, and students themselves must all work together to strengthen this pipeline of the middle class" (Duncan, 2013). In CTE, one of the five guiding principles for the future of CTE is, *"Partner*: CTE actively partners with employers to design and provide high-quality, dynamic programs" (Cotner & Folkers, 2012, p. 5).

Researchers in education (Decker & Decker, 2003; Epstein, 2011; Sanders, 2001) and agricultural education (Albrecht & Hinckley, 2012; Foster, Masser, & Sankey, 2012; Masser, Foster, & Falk, 2013; Tillinghast, Ramsey, & Terry, 2013) have been exploring the interaction between the local community and the school. Joyce Epstein, director of the Center of School, Family, and Community Partnerships at Johns Hopkins University, has devoted 20 years to research on education and community partnerships. According to Epstein (2011), waiting for stakeholder involvement or dictating it are not solutions to increasing family and community involvement in schools. In contrast, "research shows that *partnership* is a better approach" (Epstein, 2011, p. 4). Using a partnership approach leads to increased academic achievement, more school resources, and a positive learning environment (Epstein, 1995, 2011; Sanders, 2001).

In CTE, community partnerships offer an extension of the classroom facilities that can enrich the educational experience (Albrecht & Hinckley, 2012; Sanders, 2001). Albrecht and Hinckley (2012) also suggest that, "the fabric of every community is made of many stakeholder groups, each with its own focus and financial and/or physical support. Identifying and working with these groups in areas of common interest extends the classroom and the impact of school programs and services" (p. 126).

Significance of the Study

According to Albrecht and Hinckley (2012), "perhaps if the importance and power of partnerships were better understood and more effectively utilized, Career Technical Education (CTE) – indeed, all of education – would be producing better results" (p. 123). The research-based benefits are documented, but community-school partnerships in reality, currently may not be strong enough to provide the benefits to students and may vary greatly from context to context (Epstein, 2011; Sanders, 2003). According to Albrecht and Hinckley, our educators today "do not have all the tools or dollars necessary to create and maintain the education-to-careers pipeline" (p. 135). To achieve and maintain this career pipeline for students, strong partnerships must be developed that benefit the students, school, and the stakeholders involved.

Furthermore, Epstein (2011) reported that, "few educators are prepared to work with businesses, agencies, and institutions in their students' communities to promote student success in school and beyond" (p. 5). School-based agricultural education researchers who focused on the needs of teachers have highlighted this concern. Both new and current agriculture teachers indicated that involving community stakeholders is an area of concern (Boone & Boone, 2007; Garton & Chung, 1996; Joerger, 2002; Layfield & Dobbins, 2002; Mundt & Connors, 1999; Myers, Dyer, & Washburn, 2005; Sorensen, Tarpley, & Warnick, 2010; Stair, Warner, & Moore, 2012).

Fortunately, individual programs in schools do effectively create partnerships between the school, family, and community (Epstein, 1995). More in-depth analysis and research is needed to describe and disseminate specific examples on ways to strengthen community-school partnerships (Epstein, 2011). Sanders (2001) also highlighted that,

"further quantitative research on factors that that facilitate and hinder school-community connections also would inform both policy and practice" (p. 33).

Agricultural education researchers agree that further research is needed to explore the interactions between community entities and the agriculture program (Martin & Henry, 2012; Masser et al., 2013). "Only through continued research and professional development on stakeholder support will the discipline be able to resolve the issues experienced by agricultural educators, allowing all programs to reap the benefits community support can offer" (Masser et al., 2013, p. 307). Martin and Henry (2012) also stated, "researching the connections between school-based agricultural programs and their communities is vital for community-based program activities" (p. 110).

Priority 6 of the American Association for Agricultural Education (AAAE) 2011-2016 National Research Agenda focuses on vibrant, resilient community in agricultural education. Specifically, Priority 6 has a key outcome where, "local communities will have effective leaders and engaged citizens who ensure high quality educational and career development opportunities for youth and adults and proactively sustain an environment conducive to positive community change" (Doerfort, 2010, p. 10). The current research study addressed both of the major research programs outlined by Doerfort (2010), which included the following: sustained dynamic community leadership and civic engagement; and educational dimensions of vibrant rural communities.

By focusing on the interactions and partnerships that occur between community stakeholders and the school-based agricultural education program, the profession will have a clear description of the specific partnerships that are present as well as details of what occurs. This foundational description of the community-agricultural education partnership

could then serve as a research base for further investigation into the educational dimensions of communities.

The current research study also addressed "Priority 4: Delivery of FFA Programs, Products, and Services" of the National FFA Organization Research Agenda for 2013-2018 (Crutchfield, 2013, p. 2). A component of Priority 4 encourages researchers in the agricultural education discipline to, "examine vibrant, resilient FFA Alumni affiliates and state associations for replicable strategies" (p. 2). There are FFA Alumni affiliates present in the programs included in the study. The research could inform future and current agriculture teachers of possible benefits, barriers, and ideas to include an active FFA Alumni into the school-based agricultural education program.

Purpose and Objectives

School and community partnerships offer tremendous benefits to the students and their development of 21st century skills (Albrecht & Hinckley, 2012). However, there exists a need to further understand the partnerships that exist in specific disciplines (Epstein, 2011; Sanders, 2001, 2003). The purpose of the research study was to describe the supporters of school-based agricultural education programs in the Northwest (Idaho, Oregon, and Washington), as well as the teachers' views of agricultural education supporters.

The Northwest was selected in an attempt to gain a regional perspective on school-based agricultural education supporters. A nationwide study was not pursued due to the differences in the groups, agricultural industries, and geography that exist between regions. The Northwest shares similar organizations that are specific to the region and would not be found in all areas in the United States. Idaho, Oregon, and Washington have similar agricultural industries, community sizes, and also contain small schools that are

geographically isolated to a specific community. By focusing on the Northwest region, the current study was able to tailor the data collection instrument to best describe the population of interest.

The following objectives guided the study:

1. Describe the agricultural education program supporters.
2. Describe the roles of agricultural education program supporters.
3. Describe the communication strategies used by agricultural education teachers to contact stakeholders.
4. Describe the views of teachers on agricultural education program supporters.
5. Describe how teachers define "community."
6. Identify barriers to including agricultural education program supporters.
7. Describe the relationships between the teacher and agriculture program demographics and the views of teachers on agricultural education program supporters.
8. Identify characteristics of the teacher and program that are significant predictors of the views of teachers toward the total agricultural education program supporters.

Operational Definitions

Agricultural Education Stakeholder – An agricultural education stakeholder is any community, business, industry, or government-affiliated entity (individual or group) that has a vested interest in the agriculture program but may or may not support the program.

Agricultural Education Supporter – An agricultural education supporter is any community, business, industry, or government-affiliated entity (individual or group) that provides support to the agriculture program through its time, talent, or resources.

Summary

The continued focus on building 21st century skills encouraged CTE to develop creative solutions to issues in vocational education (Albrecht & Hinckley, 2012). By incorporating the partnership of community and industry stakeholders, CTE programs will be grounded in rigorous and relevant curriculum that provides students with the skills needed to be successful in the workplace (Albrecht & Hinckley, 2012). Based on the recommendation of other researchers in the area of community-school partnership, a comprehensive description of the community support for school-based agricultural education programs could benefit the agricultural education profession by providing discipline-specific quantitative data to strengthen the community-program partnerships. While community support will not solve all educational issues, continued development of community and school partnerships can move education forward in a positive direction (Sanders, 2003, p. 176).

Chapter 2:

Review of Literature

"The field of school, family, and community partnerships is a young field of study, compared to other educational research topics" (Epstein, 2011, p. 42). In such a newly researched area of education though, there exists a firm foundational literature to build upon with the current study. According to Creswell (2008), "in a thematic review of the literature, the researcher identifies a theme and briefly cites literature to document this theme" (p. 113). The following chapter will outline a thematic review of literature pertaining to community and school-wide partnerships and community and agricultural education partnerships.

Community and School-Wide Partnerships

Researchers across educational disciplines have investigated the partnerships between the school and community (Decker & Decker, 2003; Dryfoos, 1998; Epstein, 1995, 2011; Epstein et al., 2009; Sanders, 2001, 2003). According to Sanders (2001), school-community partnerships can be defined as, "the connections between schools and community individuals, organizations, and businesses that are forged to promote students' social, emotional, physical, and intellectual development" (p. 20). The student is at the center of the community-school partnership, making his/her success the main motivation for further advancement of community and school partnerships (Epstein, 1995).

The major partnership groups, their roles, and the overall benefit of community-school partnerships are well documented in the literature (Decker & Decker, 2003; Epstein, 1995, 2011; Epstein et al., 2009; Sanders, 2001, 2003). Joyce Epstein, director of the Center on School, Family, and Community Partnerships and educational researcher, has conducted

an extensive investigation into the interactions between families, schools, and communities (Epstein, 1995, 2011; Epstein et al. 2009). According to Epstein (1995), community and school partnerships provide many benefits that include improving the school climate, providing help for teachers, and connecting families with services and other parents. The main focus of all community-school partnerships should always be to help students succeed in school and later in life (Epstein, 1995).

Epstein et al. (2009) compiled a handbook, *School, Family, and Community Partnerships: Your Handbook for Action,* to assist administrators and teachers with building partnerships. The handbook is based on the work of researchers in community support. One key portion of the handbook describes the views of community members toward school collaboration. In a case study conducted by Epstein et al., community partners revealed a common desire to partner with schools to help increase student achievement. The partners wanted to play an active role in the schools and assist in making schools academically rigorous and student centered. The results of the case study also supported the importance of two-way communication with all partners. Providing the details of the partnership upfront saved both the school and community member(s) time and resources. Two additional results that surfaced from the case study were the need for administrative support and a welcoming school climate that encouraged partnerships. Without either, community partners were less willing to collaborate (Epstein et al., 2009).

Epstein's most recent book, *School, Family, and Community Partnerships*, focuses on the research that has been conducted in the area of school, family, and community partnership and identifies future research areas in the field (Epstein, 2011). Epstein (2011) suggested that research on school, family, and community partnerships should focus on the

interrelationship between all three influences in specific disciplines. Future research that provides data on the effects and benefits to implementing partnership was also recommended.

In their book entitled *Home, School, and Community Partnerships,* Decker and Decker (2003) extensively described the groups and individuals who partnered with the local school. Decker and Decker, two professors and researchers in community support, claimed that there is not a standardized, one-size-fits-all approach to the type of partners that are needed in the local school system. Instead, each educational program should carefully consider which stakeholders would be most beneficial to the school (Decker & Decker, 2003, p. 69). Regardless of the groups present, Decker and Decker urged that, "people must be the focus of every collaborative effort" (p. 141).

Decker and Decker (2003) cited several stakeholder groups that can be incorporated into the school. The five partnerships that are used in schools across the nation included the following: volunteer programs; after-school programs; advisory committees/task forces; school-business partnerships; and service learning opportunities. Decker and Decker recommended that the partners in the school represent the local community's wants and needs. According to the researchers, "the group's impact and credibility also depend on the support it gets from school staff, the substance of its assignment, and clarity of the task to everyone involved" (Decker & Decker, 2003, p. 128).

School-business partnerships, which are often the most publicized partnerships in education, also can provide students with a wide variety of support (Decker & Decker, 2003). Business entities open up opportunities for internships, places for job-site visits, provide financial donations, provide equipment donations, and allow for future job

placement. With such an array of partners available, there is not a prescribed list of the partnerships needed to be successful. Each of the supporters offer their own benefits, leaving it up to the school to identify which program, or combination of programs, best suits the needs of the students (Decker & Decker, 2003).

Sanders (2001) surveyed 443 schools, nationwide, that were a part of the National Network of Partnership Schools (NNPS) in an attempt to further the line of inquiry on school partnerships. NNPS is an organization that supports and assist schools in fostering home, school, and community partnerships to increase the opportunities for students. Sanders used survey research methods to describe the partnerships occurring in schools and how the teachers viewed the school-community partnerships that were occurring in their schools.

Sanders (2001) found that most schools that are engaging in school-community partnerships had one to three partners in the community. These partners included stakeholders such as healthcare organizations, government and military organizations, volunteer organizations, faith organizations, senior citizen centers, and community individuals. The community partnership-based benefits provided from these stakeholders included mentoring and tutoring, contextual learning and job shadowing opportunities, academic enrichment, as well as the provision of service, equipment, and supplies to students (Sanders, 2001). Overall, the teachers included in the studies were satisfied with the partnerships. Additionally, the more partnerships present in the school, the more satisfied teachers were with the partnerships. Sanders recommended that further research be conducted to increase the partnerships for all schools.

Sanders (2003) reviewed prior studies to identify the frequently occurring partnerships between communities and schools. Sanders identified four types of community-school partnerships that were common practice in schools. The most prominent community-school partnership was with business and industries (Sanders, 2003). Sanders also identified service learning and school-linked service integrations as two additional partnerships. Both examples increased the relationships between the community and school and created an open exchange that benefited both parties (Sanders, 2003). Partnerships with universities were the fourth and final partnership identified. These university partnerships took on various shapes and configurations but were becoming increasingly popular as schools enhanced their curriculum. Sanders identified the need for university partnerships to have a shared vision and constant open communication.

Sanders (2003) also summarized several rationales for community involvement in schools, which included the following: effective functioning of the school; economic competitiveness; student well-being; and community development. The first rationale focused on adding additional resources to help schools function effectively. These additional resources were material or human, depending on the needs of the school. Mentoring, school equipment donations, and funding assistance are just three examples of additional resources that were added for a school. The rationale for additional resources was part of a vision that called for open school involvement from the community that remained responsive to community needs (Sanders, 2003, p. 162).

A second rationale for community involvement was to increase the economic competitiveness of the United States. Under this rationale, schools were viewed as a training ground for the society's workforce. In response, community involvement could help produce

and train the workers of the 21st century. Since the business leaders, managers, and personnel are well versed in the needs of their industries, community involvement will help prepare students for the ever-changing workforce (Sanders, 2003).

Community involvement can also increase the well-being of the students in schools. Individuals who believed in this rationale suggested that community involvement in schools helped students build healthy personal development that built connections with the community and its people. Similarly, the fourth rationale focused on this connection with the community and saw it as a way for overall community development. Students should be able to collaborate and grow with the community, create culture, build social networks, and expand economic wealth during the process (Sanders, 2003).

Steps to implementation.

Researchers in the field of community and school partnerships have outlined ways to design and initiate effective community-school partnerships (Epstein, 1995; Epstein et al., 2009; Sanders, 2001). Epstein (1995) and Epstein et al. (2009) designed and implemented a framework of six types of involvement that will improve the school and student success. These six types of involvement aimed to transform theory into practice. The framework components are as follows: Type 1-Parenting; Type 2-Communicating; Type 3-Volunteering activities; Type 4-Learning at Home; Type 5-Decision Making; and Type 6-Collaborating with the Community. Each of these types of involvement adds its own benefit to the school and student (Epstein et al., 2009).

Epstein (1995) outlined five steps for starting successful partnerships. The steps include: Step 1-Create an action team; Step 2-Obtain funds and other support; Step 3-Identify starting points; Step 4-Develop a three-year plan; and Step 5-Continue planning and

working. By following these five steps, the stakeholder involvement will lead to positive changes in the home, school and community (Epstein, 1995).

According to Sanders (2001), design and implementation is critical to a successful partnership. The first step should be identifying the issues or goals that need to be addressed. Then, the school must define the focus and scope of the partnerships, preferably by drafting a guiding document for each community partner. With the focus and scope identified, community partners should then be identified and selected for collaboration. The final key components include constant monitoring and evaluation to ensure that the partnership is contributing to student success. An important focus point is to share the success stories after the process is finished, perpetuating the effects of future collaboration (Sanders, 2001).

Barriers to community-school partnerships.

Researchers (Decker & Decker, 2003; Dryfoos, 1998; Sanders, 2001, 2003) in the area of community-school partnerships have identified four barriers that hinder further partnership development: process-oriented barriers; lack of professional preparation by teachers; federal, state, and local policy; and lack of resources. The first barrier to collaboration is process-oriented barriers caused by people (Decker & Decker, 2003; Dryfoos, 1998; Sanders, 2001). Decker and Decker (2003) identified process-oriented barriers as any barrier that school individuals may cause during collaboration. Process-oriented barriers may occur when problems need to be solved or goals are being set for home and school collaboration (Decker & Decker, 2003).

Process-oriented barriers take several forms, including the following: a lack of consensus by the teachers on the same issue (Decker & Decker, 2003); power and control issues between teachers and stakeholders (Cushing & Kohl, 1997 as cited by Sanders, 2001;

Decker & Decker, 2003; Dryfoos, 1998; Mawhinney, 1994 as cited by Sanders, 2001); lack of trust among all parties involved (Decker & Decker, 2003); differing philosophies and attitudes toward partnership (Cushing & Kohl, 1997 as cited by Sanders, 2001; Decker & Decker, 2003); and a lack of participation in partnership initiatives (Decker & Decker, 2003; Sanders, 2001). The lack of collaboration due to any interpersonal reason lessens the strength of the home, school, and community partnership (Decker & Decker, 2003).

Sanders (2001, 2003) and Dryfoos (1998) indicated that a lack of professional preparation of the teachers is a second barrier to community-school partnerships. Educators who are trained to collaborate with stakeholders view partnerships as another part of their job, rather than an additional obligation. Increasing the preparation of teachers and administrators could help decrease the resistance to including stakeholders. Further training could also arm teachers with the leadership and communication skills needed to build successful partnerships (Dryfoos, 1998; Sanders, 2001, 2003).

Federal, state, and local policy is a third barrier to collaboration (Decker & Decker, 2003; Dryfoos, 1998). Different policies and regulations may guide the work of community organizations and schools. If the guiding policies are drastically different, collaboration and shared funding may affect the ease of efficient partnerships (Decker & Decker, 2003; Dryfoos, 1998).

The final barrier identified by researchers is a lack of resources (Decker & Decker, 2003; Dryfoos, 1998) Specifically, a lack of financial resources was commonly reported as a hindrance to partnerships (Decker & Decker, 2003; Dryfoos, 1998). Dryfoos (1998) added that a lack of funds also compounds to cause transportation issues. Sanders (2001) identified

a lack of time as a limiting resource to partnerships. Stakeholders and teachers may want to build partnerships but a lack of time prevents it (Sanders, 2001).

Community and Agricultural Education Program Partnerships

The Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) provided a much-needed funding source for all Career and Technical Education (CTE) programs. To receive funding, CTE programs, including agricultural education, must meet a pre-established set of guidelines to be eligible. One key component to meeting the established guidelines is partnership with community entities (Albrecht & Hinckley, 2012). This partnership must include an ongoing collaboration that drives the program of study and supports the education of students.

While meeting the guidelines of the Perkins Act is important for CTE programs, the value of partnership goes well beyond a mandate. CTE professionals and agricultural education researchers alike have documented the entities that support educational programs and the benefits these entities can offer. Chapter 7: "Partnerships" of *The Career Pathways Effect: Linking Education and Economic Prosperity* focuses on the immense benefits quality partnerships can have on CTE programs. Perhaps the biggest benefit is the education-to-careers pipeline that occurs when true partnerships are built. Students are able to leave the classroom and enter into a career based in the community that benefits all parties involved (Albrecht & Hinckley, 2012).

"One of the most important characteristics of a local agricultural education program is the interaction between the program and the community served by the school" (Talbert, Vaughn, Croom, & Lee, 2007, p. 122). This quote taken from the *Foundations of Agricultural Education* textbook represents the history of the community-based concept in

agricultural education. Herbert M. Hamlin, a foundational leader in agricultural education, was one of the first individuals to spearhead the involvement of the community in agriculture. Hamlin was a prolific writer and advocate for community involvement in the mid-1900's, and it was during this time that formal agricultural education was being established in United States schools (Woodin, 1962). In his book *Agricultural Education in Community Schools*, H. M. Hamlin, stated the following:

> Perhaps as much progress toward the 'community school' idea had been made in agricultural education as in any part of the school program. This is one of the principal reasons why agricultural education has been gaining strength and prestige in our schools (Hamlin, 1949, p. 35).

The community-based agricultural education that was created by the work of H. M. Hamlin influenced the agricultural education programs of today. Modern agricultural education researchers focus on the interactions between the agriculture program and the community in two distinct approaches. The first approach is to investigate the impact agricultural education has on the local community. The second approach, and focus of the current research study, is on the impacts the community can have on the school-based agricultural education program. The following sections will outline the literature regarding the impact an agriculture program has on the community, the impact a community can have on the agriculture program, the community characteristics desired for future agriculture teachers, and the needs of agriculture teachers regarding community involvement.

Impact of agricultural education on the community.

Talbert, Vaughn, Croom, and Lee (2007) stated, "if the community supports a local agricultural education program, it will have an improved supply of workers entering the

workforce upon graduation from high school and postsecondary school" (p. 122). This quote begins to unearth the benefits that agriculture programs can have on the community. Researchers in agricultural education have expanded on this interaction between the agriculture program and the community, taking extensive time to immerse themselves in the community to describe the interactions that occurred (Brown & Kelsey, 2013; Hoover & Israel, 1996; Martin & Henry, 2012; Woods, 2004).

Martin and Henry (2012) recognized the need for further investigation into the interactions between the agriculture program and the community. According to Martin and Henry, "a rural community that is struggling will have difficulty meeting the needs of or even funding a local agriculture program" (p. 110). Without the community, the agriculture program would not be able to exist any longer. Because of this interaction, Martin and Henry chose to further investigate the influence agriculture programs had on three rural communities with high school agriculture programs. Qualitative research methods were used to describe the impact the agriculture programs had on their respective community. The use of in-depth interviews, field observation, and direct observation of meetings all helped add rich description to the interactions in the community (Martin & Henry, 2012).

Martin and Henry (2012) concluded that the agriculture program's most influential contribution to the community was their construction of social connections between community members. This exchange between the program and community benefited both parties involved. Social activities, such as banquets and community events hosted by the agriculture program, provided opportunities for community interaction. The agriculture program also provided volunteer assistance to help the community events be successful. Martin and Henry identified additional contributions of the agriculture program, such as

fostering intergenerational cooperation, creating a local identity, and promoting the local economy.

In return for support from the agriculture program, the community provided educational and career opportunities for students. Specifically, the social connections between community individuals opened up the opportunity for class guest speakers and connections to local businesses. Martin and Henry (2012) concluded that the social connections in the community are eventually reinvested back into the agriculture program through student opportunities and funding support, making the partnership a worthwhile endeavor. Martin and Henry suggested that, "researching the connections between school-based agricultural programs and their communities is vital for community-based program activities" and encouraged further research on this area (p. 110).

Conversely, Brown and Kelsey (2013) chose to change the focus of their study away from rural programs and investigated the interaction between a high school agriculture program and an urban community. The case study used qualitative interviews and observation to describe how the horticulture program was started in the urban community and the effects it had on the community after the agriculture program was established. Brown and Kelsey suggested that community rejuvenation occurred when the agriculture program focused on community-building projects. In return, these projects and hard work of the agriculture program impressed the members of the community. The community was improved, overall, from the interactions between the agriculture students and the community members (Brown & Kelsey, 2013).

Woods (2004) and Hoover and Israel (1996) also focused on the benefits that an agriculture program can have on the local community. Both studies, however, investigated

how service learning and community service activities in agricultural education impacted the community. Woods identified in his theoretical discussion of service activities how service learning can have an impact on the students, schools, and communities when implemented correctly by agriculture programs. Woods suggested providing agricultural education a public purpose by including a community contribution as part of the local program.

Hoover and Israel (1996) described how a specific agricultural education program's community service projects in Florida could impact the community. In addition to the total agricultural education model (classroom and laboratory instruction, Supervised Agricultural Experience (SAE), and FFA), Hoover and Israel suggested the following:

> Community involvement and support are also the cornerstones of a successful agricultural education program. Through interaction with advisory councils, school administrators, parents and local government agencies, agricultural education programs and FFA Chapters have the opportunity to become involved in community service projects (p. 1).

High school agriculture programs should become involved in the community and help address the needs of the area. In return, the collaboration could help increase the awareness of agricultural education and build a sense of collaboration in the overall community (Hoover & Israel, 1996).

Impact of the community on agricultural education.

A second perspective on the interaction between the community and agriculture program is the impact the community can have on agricultural education. Agricultural education researchers, professors, and teachers have identified the need to interact with the

individuals in the community. “The ability to work with others is one of the secrets of success in the management of an agricultural education program” (Phipps, Osborne, Dyer, & Ball, 2008, p. 139). This quote from the *Handbook on Agricultural Education in Public Schools* emphasizes the important role community groups and individuals hold in agricultural education. Phipps, Osborne, Dyer, and Ball (2008) added that in agricultural education, the “success or failure is largely dependent on the ability to work with these various groups” (p. 139).

Community stakeholder groups take many forms in agricultural education. Albrecht and Hinckley (2012) described five partnerships that add benefits to a program. In their chapter entitled “Partnerships” from *The Career Pathways Effect: Linking Education and Economic Prosperity,* Albrecht and Hinckley stated, **“**the most logical partnerships for the education community are with other education providers and with business and industry” (p. 130). Business and industry entities in the community can provide financial benefits that boost program resources and materials. There are also curriculum advantages such as guest speakers, teacher professional development, and constant industry validation of the concepts taught in the classroom (Albrecht & Hinckley, 2012, p. 126).

Educational providers, such as adult education groups and community and technical colleges, are also natural partnerships for programs. Partnerships with these stakeholders improve the articulation from high school to postsecondary education and provide opportunities to begin a career path. Adult education groups can also provide the opportunity for collaborative learning (Albrecht & Hinckley, 2012, p. 128).

Employers, community-based organizations, and workforce entities are three additional stakeholders that provide logical opportunities for partnership (Albrecht &

Hinckley, 2012). The authors note that local and state government agencies, employer coalitions, labor and trade groups, faith-based organizations, private schools, and professional organizations all fit within the five listed stakeholder areas but are often overlooked (Albrecht & Hinckley, 2012, p. 129). Educators are urged to consider all types of stakeholders and not limit their focus to one area.

Phipps et al. (2008) devoted two chapters of *The Handbook for Agricultural Education* to outline the community stakeholders that could play an active role in an agricultural education program. Parents are one group that can provide support to an agriculture program. Parent involvement can help motivate students and assist as chaperones, present as guest speakers, serve as judges, and be volunteers for the program. The cooperative extension system is another key partner that could be used to collaborate on community programs and joint activities. Phipps et al. also described that, "teachers of agriculture should work with a number of agricultural organizations, such as commodities associations, agricultural credit associations, marketing associations, and cooperatives" (p. 143).

Stakeholder groups often include a conglomeration of different entities, though, and represent diverse perspectives. In school-based agricultural education, "the use of advisory councils – and other support groups such as FFA alumni chapters – helps to successfully develop an effective program" (Phipps et al., 2008, p. 81). Advisory councils, which are also referred to as advisory groups, advisory committees, or advisory boards, are a group of program stakeholders that provide advice for the agricultural education program (Talbert et al., 2007). Advisory councils offer benefits to the program by providing advocacy in the community, providing advice that is representative of the community, and connecting the

program to the community (Phipps et al., 2008). The primary functions are to, "(1) assist in the planning decisions of agricultural education programs, and (2) oversee the evaluation of agricultural education programs to ensure that the program's goals are achieved" (Phipps et al., 2008, p. 83).

Pawlowski and Meeder (2012), who both own business-consulting firms, described six benefits that stakeholders, especially advisory councils, can offer to the CTE program. According to Pawlowski and Meeder, "all too often, there is a serious disconnect between schools and their communities" (p. 4). By incorporating advisory councils into the CTE program, however, the connection can be reformed. The book, *Building Advisory Boards that Matter: A Handbook for Engaging Your Business Partners*, lists the six elements that stakeholders can help to do for the program, which include: help to focus on the right outcomes; bring training expertise to the table; securing resources for the program; providing students and staff with new opportunities; connecting with the larger community; and advocacy (Pawlowski & Meeder, 2012).

"The advisory council for an agricultural education program has a major role in helping develop the program so that it meets most effectively the needs and interests of the community served" (Talbert et al, 2007, p. 125). Despite the strong need outlined by agricultural education texts, researchers (Barbour, 2010; Dormody, Seevers, & Clason, 1996; Foster et al., 2012; Masser et al., 2013; Whaley & Sutphin, 1987) have found a varying level of advisory council implementation across the nation.

Whaley and Sutphin (1987) conducted a survey of all agriculture programs in the state of California to determine the status and influence of the agricultural education advisory councils. Of the 398 programs in the state, 314 programs returned the questionnaire

for a 78.9% response rate. Despite the state law requiring an advisory council, 77% of the California agriculture programs had an advisory council in place. The advisory councils were used for curriculum development, facilities management, equipment selection and use, program evaluation, and articulation with the school science curriculum.

The teachers in those 314 California agriculture programs included in the study felt that the advisory councils were "moderately worthwhile" (Whaley & Sutphin, 1987). The researchers recommended that advisory councils establish strategies to improve communication and to focus on the matters that impact the agriculture program the most. While the study is dated, the results and conclusions provided a basis for future studies by Barbour (2010), Foster, Masser, and Sankey (2012), and Masser, Foster, and Falk (2013).

In Texas, Barbour (2010) used survey research methods to describe advisory council implementation and build on prior literature established by Whaley and Sutphin (1987). A sample of 278 from the 1037 Texas, school-based agricultural education programs was included in the study. A total of 162 agricultural programs responded to the questionnaire, resulting in a 58.3% response rate. Forty-three percent of the participants indicated that an advisory council was used in their Texas agriculture program. Parents, local business officials, and school principal were the most commonly represented individuals on the council. The top three functions of the advisory councils were acting as a communication link, evaluating the agriculture program, and identifying facility modifications. The researcher recommended that advisory councils should be used in all Texas agricultural education programs and that continued research be conducted to support advisory council implementation (Barbour, 2010).

Foster et al. (2012) conducted a census of the 241 agriculture teachers in Pennsylvania to expand the investigation of agricultural education to the east coast. In total, 171 agriculture teachers responded to the questionnaire, 90.6% of which had an advisory council in place (n = 154). An average of 11 members composed the advisory council and represented local agriculture industries, former students, and parents of current students.

The top areas of influence the advisory council had on the agriculture program was identifying the equipment, tools, and supplies needed for the program and reviewing the course of study for content relevance and accuracy. Overall, Pennsylvania teachers did have a positive perception of advisory councils. The agriculture teachers who responded to the questionnaire felt that the advisory council should have more influence on all areas of the program than they currently do. The researchers suggested that preservice teacher education include coursework that helps educators develop community-based agricultural education programs (Foster et al, 2012).

The most recent study on advisory councils was conducted in Idaho to describe the level of advisory council implementation and use in Idaho school-based agricultural education programs (Masser et al., 2013). All 119 Idaho agriculture teachers were included in the survey research study. Of the 95 teachers that responded, the researchers found that 89.5% of the respondents had an advisory council in place for their programs. The council most commonly consisted of seven individuals that represented local agricultural industries, parents of current students, parents of past students, representatives of local non-agriculture industries, and former students. The councils had the most influence acting as a communication link to the general public, identifying facility needs, and determining the objectives of the program (Masser et al., 2013).

The participants were also asked about their views on advisory council use. Overall, teachers had a positive view of agricultural education advisory councils but felt that agricultural education advisory councils should have more influence in many areas of the program, especially hiring of new teachers, assisting with SAEs, and providing recommendations to the school board. The researchers felt that advisory councils were not being used to their fullest potential in Idaho and suggested that further research and professional development focus on advisory councils (Masser et al., 2013).

FFA Alumni groups are an additional support group present in agricultural education. Talbert et al. (2007) stated that, "one of the most productive methods for developing community support for an agricultural education program is involving the FFA Alumni" (p. 135). According to the FFA Alumni Manual, "the mission of the National FFA Alumni Association is to support and advocate for agricultural education and FFA through gifts of time, talent and financial resources at the local, state and national levels" (National FFA Alumni Association, 2014, p. 2). The manual lists several reasons to have an FFA Alumni Affiliate at the local level. The local alumni affiliates work to support agricultural education, facilitate involvement of former FFA members and others interested in supporting agriculture programs, enhance the personal development component of FFA, and serve as advocates for agricultural education at all levels (National FFA Alumni Association, 2014, p. 21). FFA Alumni members can also assist with fundraisers, help with conventions, coordinate activities, and coach and judge FFA events (Talbert et al., 2007).

According to the National FFA Alumni Association (2014), "with the increased diversity of agricultural education programs, it is becoming more difficult for advisors/teachers to keep up with all the additional activities" (p. 21). To combat this issue,

they suggest that agriculture programs involve all types of people in the community. The National FFA Alumni Association also stated the following:

> An FFA Alumni Affiliate can unify the local community to support agricultural education and FFA activities and provide valuable assistance to agriculture advisors. With the FFA Advisor coordinating activities, the FFA Alumni can provide hands, hearts and minds to ensuring success (p. 21).

FFA Alumni members do not have to be past FFA members themselves, opening the organization to all (Talbet et al., 2007). Therefore, recruiting should focus on any interested supporter in the community. Personal contacts by the advisor or FFA members, newspaper announcements, mailings, telephone calls, and alumni member connections should all be used to recruit new members (Talbert et al. 2007).

Dormody, Seevers, and Clason (1996) and more recently, Gossen (2011) conducted descriptive studies to further describe the demographics, roles, and prominence of FFA Alumni chapters across the nation. Gossen conducted a descriptive study on the demographics of National FFA Alumni Association members and their motivation to remain involved. Of the 913 affiliate members included in the sample, 399 (43.7%) completed the questionnaire.

A total of 286 (71.7%) of the participants were past FFA members, and the remaining 113 participants (28.3%) were not past FFA members. Looking at the 113 non-FFA members, all but 25 (6.3%) had some affiliation to FFA such as child involvement prior to their membership (Gossen, 2011). All participants were asked about their level of engagement in the organizations. Of the 286 participants, 63.4% of the FFA Alumni members did not consider themselves engaged in the work of the organization. When they

did engage, it was only when asked by others. The remaining 105 participants (36.6%) were engaged or highly engaged. Communication preferences were also gathered. The preferred communication methods by the members were print media and email, with very few individuals indicating that social media or webpages were effective options (Gossen, 2011).

FFA Alumni members' motivation to join and stay involved was also described in the study. The decision to join was most often a personal choice for the members (n =137, 34.7%) or they were asked by the FFA advisor (n = 97). The key motivations were to help others, engage in social activities, and to help themselves grow personally by gaining new perspectives or experiences. One recommendation by Gossen (2011) was to identify the barriers to starting an FFA Alumni affiliate and misconceptions about the term "alumni" in the name, which could hinder involvement by individuals who were not past FFA members. Additional recommendations pertained to recruitment issues at the national level for the National FFA Alumni Association.

Dormody et al. (1996) conducted a descriptive study that expanded to include advisory councils, National Young Farmer Education Association (NYFEA) chapters, and FFA Alumni affiliates. Stratified random sampling was used ensure that each state was included in the nationwide study. A total of 244 of the 367 individuals included in the sample responded to the questionnaire.

Dormody et al. (1996) concluded that it was most common for school-based agriculture programs to have one or two of the organizations affiliated with the program, with advisory councils and an FFA Alumni affiliate most often present if two organizations were in place. Advisory councils were present most often with 199 of the 218 indicating its

use (91.3%). When looking at the other groups, 86 (39.4%) had an FFA Alumni affiliate, 71 (32.6%) had another organization, and 40 (18.3) had a NYFEA chapter present. Overall, teachers had positive perceptions of all three organizations and the support each offered. Dormody et al. recommended that further research and effort be devoted to including more adult organizations to keep students involved in agriculture and to reduce the responsibilities of the teacher.

Some community individuals are not part of an advisory council, FFA Alumni, or other selected group in the agriculture program. Researchers in both school-based agricultural education (Seevers & Rosencrans, 2001; Tillinghast et al., 2013) and extension education (Boyd, 2004; Fritz, Barbuto, Marx, Etling, & Burrow, 2000; Terry, Harder, & Pracht, 2011) focused on community volunteers in a related body of literature.

Boyd (2004), an extension professional, cited several research and anecdotal examples supporting the need for further research into volunteer management by extension faculty. Boyd conducted a Delphi study to determine the competencies needed by extension agents to effectively work with volunteers. The Delphi experts identified 33 competences within five categories (organizational leadership, systems leadership, organizational culture, personal skills, and management skills). Based on the results, Boyd suggested that ongoing faculty development on volunteer leadership is needed, especially in the areas identified within the five categories.

Terry, Harder, and Pracht (2011) sought to understand the value of volunteer involvement in Florida 4-H clubs. A census of all 62 volunteer administrators was conducted. The researchers found that all Florida 4-H programs provided direct opportunities for volunteers to get involved in educational opportunities with youth, and a

large majority provided indirect involvement with youth activities. The researchers concluded that the programs that included volunteers generated 50% more total benefits for members than those 4-H programs that did not include volunteers. Volunteer recruitment was a challenge for the 4-H programs so further research must be conducted to improve recruitment (Terry et al., 2011).

Fritz, Barbuto, Marx, Etling, and Burrow (2000) conducted a descriptive study to describe the motivation of volunteers and the strategies of service recognition used in Nebraska 4-H programs. A sample of 714 Nebraska 4-H leaders were included in the study. The motivation of participants was first described. The researchers found that participants were motivated to help youth and to be with their children. In terms of preferred recognition methods, personal recognition from the 4-H'ers such as a letter or phone call were preferred. Recognition from the parents, siblings, extension educators, and volunteer leaders were not preferred as highly. Fritz et al. suggested that, "4-H volunteers will continue to play a key role in the success of 4-H clubs for years to come. Therefore, it is important that careful consideration be given to volunteer recruitment and recognition" (p. 48)

Researchers in classroom-based agricultural education also have described volunteer involvement (Seevers & Rosencrans, 2001; Tillinghast et al., 2013). According to Seevers and Rosencrans (2001), agriculture programs are faced with a tough decision as enrollments continue to grow. One approach is to hire a second instructor. Instead, the researchers suggested that, "another way to deal with increasing enrollments is to look for volunteers from the community" (p. 72). Seevers and Rosencrans conducted a descriptive study in New Mexico to determine how volunteers were being used in agriculture programs.

Survey research methods were used to gather the input of all 90 agriculture teachers in New Mexico. Seevers and Rosencrans (2001) found that 87% of the 69 teachers who responded were using volunteers in their programs. The volunteers were being used as chaperones, guest speakers for classes, Career Development Event (CDE) coaches, and to assist with FFA activities. In contrast, volunteers were least involved with officer operations, recruiting students, and marketing the program (Seevers & Rosencrans, 2001).

Overall, the New Mexico teachers in the study had a positive view toward including volunteers in the program. Seevers and Rosencrans (2001) wrote the following:

> There was agreement that volunteers are an important part of the agricultural education program, that use of volunteers provides many benefits, and involving qualified volunteers in various functions and activities frees the teacher to focus on other aspects of the program (p. 79).

Seevers and Rosencrans also concluded how important communication is when working with volunteers. “Clear communication about needs and expectations is essential” (Seevers & Rosencrans, 2001, p. 80). The use of a handbook or other guide could be a great addition to any program using volunteers. Also due to the increased security, communication with administrators is vital to keep them informed. “Good communication, organization, and management of the volunteer program will establish a solid and beneficial partnership” (Seevers & Rosencrans, 2001, p. 80)

Based on their findings, Seevers and Rosencrans (2001) suggested that, “involving community volunteers is essential in maximizing resources and meeting needs” (p. 79). The researchers further recommended that, “volunteers are perceived to be a valuable

community resource and should be involved whenever possible in agricultural education programs" (Seevers & Rosencrans, 2001. p. 80).

Most recently, Tillinghast, Ramsey, and Terry (2013) conducted a descriptive study in an attempt to describe the volunteers of Oklahoma school-based agriculture programs. A convenience sample of 41 Oklahoma agriculture teachers was surveyed. The researchers concluded that the most beneficial support provided by volunteers was transporting animals, chaperoning for overnight trips, providing transportation for students to FFA events, assisting with meals, judging FFA events, fundraising, and assisting with general labor (Tillinghast et al., 2013).

Tillinghast et al. (2013) also described the volunteer training protocols of the Oklahoma participants. The researchers concluded that the agriculture programs most often used informal training sessions, with no training session occurring second most frequently. A final focus of the study was to describe the beliefs of teachers toward agricultural education volunteers. Oklahoma teachers in the study strongly agreed that volunteers should not assume some roles, that volunteers need proper training, and that volunteers need to be effective leaders. In contrast, participants disagreed that volunteers take too much time to use in the program. Tillinghast et al. stated the following:

> The school-based agricultural education teachers who participated in the study value the contributions that volunteers provide them and their program. The teachers believe that, with proper training, volunteers can ease their stress and workload, thus allowing the teacher to focus on other aspects of their job (p. 86).

Volunteers were not being used to their fullest potential, possibly due to the competitive nature of agriculture teachers (Tillinghast et al., 2013). The researchers

recommended that training be developed for volunteers. “We recommend, therefore, that a study using objectives similar to those for this research be conducted using sampling techniques that will allow for broader application of the findings” (p. 90).

Barriers to community-agriculture program partnerships.

Talbert et al. (2007), authors of *Foundations of Agricultural Education*, stated that, “a number of barriers stifle the necessary relationships between agriculture education programs and schools” (p. 123). The first of these barriers is the increased security for school visitors. Talbert et al. suggested that tightening security measures in schools may hinder the involvement of community members.

Educational accountability is the second barrier that may hinder the involvement of stakeholder groups in agricultural education. As schools begin to adopt standardized curriculum, the need for stakeholder input decreases. Furthermore, as students build skills from a standardized curriculum, students often leave the community for postsecondary training and job placement (Talbert et al., 2007).

Characteristics of effective agricultural educators in engaging community stakeholders.

“Well-organized and conducted agricultural education programs are community oriented. Instruction takes place in the community as well as in the school” (Newcomb, McCracken, Warmbrod, & Whittington, 2004, p. 13). The *Methods of Teaching Agriculture* by Newcomb, McCracken, Warmbrod, and Whittington (2004) begins with an explanation of the dimensions of a complete school-based agricultural education program. In addition to the traditional three-circle model of agricultural education, which consists of classroom/laboratory instruction, FFA, and SAE, the use of community resources and the

individuals present in the community are stressed as essential components of an agricultural education program.

Newcomb et al. (2004) provided recommendations on how to be an effective agriculture teacher that focused on incorporating the community. According to Newcomb et al., the community offers three key advantages to the program that help strengthen the opportunities for students. The first advantage is that community stakeholder involvement makes the instruction relevant, current, and grounded in real-life agricultural practices to prepare students for today's industry careers (Newcomb et al., 2004). Second, community and industry stakeholders support the students by allowing the agricultural education program to take advantage of the facilities, expertise, and support provided by various support groups. Third, a high degree of community involvement increases community awareness of the agricultural education program. When community stakeholders are viewed as program partners, students become central and all parties benefit (Newcomb et al., 2004).

Additional studies support the notion that effective agriculture teachers and agriculture programs incorporate the community. Teacher education programs at the postsecondary level strive to instill effective teaching and program planning techniques into preservice teachers. Wilson, Camp, and Balschwied (2006) identified the key concepts essential to program planning courses in agricultural education. Twenty-two syllabi from across the country were compiled and common themes were identified using content analysis. The themes were then rated on their importance by expert teachers and university teacher educators nationwide.

In total, the experts agreed upon 59 content items, arranged within 12 theme categories. Two of the 12 categories focused primarily on involving stakeholder groups in

processes that included the following: program needs assessment; how to market the agriculture program; building community partnerships; and planning, developing, organizing, and utilizing advisory councils (Wilson, Camp, & Balschweid, 2006).

Researchers (Rayfield, Murphy, Briers, & Lewis, 2012; Roberts, Dooley, Harlin, & Murphrey, 2006; Roberts & Dyer, 2004; Shippy, 1981) also suggest that current teachers and programs of effective agricultural education programs work to incorporate local community and industry stakeholders. Shippy (1981) included all Delaware teachers and local school supervisors (n = 68) in a survey research study to identify the competencies of effective agriculture teachers. While many of the resulting competencies focused on building school-program partnerships, it was recommended that teachers keep working to build relationships with other schools and educators in the community.

More recently, two studies expanded on the work of Shippy (1981) to identify top teacher competencies of today's agricultural educators (Roberts & Dyer, 2004; Roberts et al., 2006). Roberts and Dyer (2004) used a modified Delphi approach to identify characteristics of effective teachers. An expert panel of 30 university teacher educators, state supervisory staff members, county level agricultural administrators, and high school agriculture teachers identified 33 competencies of effective teachers. Community relations did surface as a top area of effective teachers, which encompassed working well with parents, establishing and maintaining good community relations, and working well with FFA Alumni and stakeholder groups. According to Roberts and Dyer, "arguably, the characteristics identified in this study are all capable of being developed in teachers" (p. 93).

Roberts, Dooley, Harlin, and Murphrey (2006) expanded on the previous studies by comparing the works of Shippy (1981) and Roberts and Dyer (2004), as well as adding

additional data on competencies gathered from experts included in the study. Roberts et al. (2006) found that, "respondents supported the concept of community involvement and expanding that involvement to include education and communicating with others" (p. 7). When compared to previous studies on effective teacher competencies, the Roberts et al., (2006) concluded that, "maintaining effective school and community relations is a proficiency requisite of successful agricultural science teachers" (p. 10).

The teacher is only one component of the agricultural education program. Rayfield, Murphy, Briers, and Lewis (2012) focused on the characteristics of an entire effective program rather than individual teachers. The purposeful sample of 15 programs identified characteristics of innovative agriculture programs. As agriculture and education change, the programs must remain dynamic and continually seek ways to be innovative. Eight of the innovative characteristics were focused on the community, such as incorporating stakeholders into the program curriculum and using the partnerships to build the skills of students. "According to teachers in this study, the purpose of an innovative agricultural education program in the future will be to use the current professional community when teaching the skills needed to succeed in the changing agricultural industry" (Rayfield et al., 2012, p. 47).

Teacher desire for professional development on community-school partnerships.

According to Creswell (2008), one important aspect research can offer is improving practice by adding new ideas to a profession. The topic of agricultural education professional development has been a well-studied area in the profession. Researchers across the country have identified inservice and professional development needs of beginning

teachers (Garton & Chung, 1996; Joerger 2002; Layfield & Dobbins, 2002; Mundt & Connors, 1999; Myers et al., 2005; Stair et al., 2012) and veteran teachers (Boone & Boone, 2007; Sorensen et al., 2010) in an attempt to improve the teaching of practicing agriculture teachers.

Increased professional development was a common theme among professional development needs of preservice and beginning teachers. Joeger (2002) identified the inservice needs of two cohorts of beginning preservice Minnesota teachers. Using the Borich Needs Assessment Model, Joerger found that five of the seven professional development needs of both groups related to the need for professional development on advisory councils, FFA Alumni, and stakeholder involvement and implementation. Based on the results of the study, it was recommended that professional development in these areas be provided to teachers. Stair, Warner, and Moore (2012) included sophomore and senior preservice teachers in their descriptive study of teaching concerns. All the cohorts included in the study were at least somewhat concerned with developing community support, organizing an advisory council, and recruiting and retaining alumni members.

Garton and Chung (1996) identified the professional development needs of first year agriculture teachers in Missouri. Thirty-seven first year teachers and 16 teacher educators and state staff were asked to identify areas of desired professional development using the Borich Needs Assessment Model. The teacher educators, state staff, and the first year teachers all agreed that utilizing effective advisory councils and developing an effective public relations program were top areas identified by the participants.

Using similar methods, Mundt and Connors (1999) studied the professional development needs of 54 first year Idaho teachers. Two of the top ten items were related to

stakeholder involvement, suggesting that building support with community organizations and using an advisory council were important areas of focus. Mundt and Connors stated, "ideas for building community, parental, faculty, counselor, and administrator support for the program continue to be important components of courses and inservice workshops for preservice and beginning teachers" (p. 47).

In South Carolina, 78 new teachers were included in a descriptive study to identify areas of need for agriculture teachers (Layfield & Dobbins, 2002). The researchers identified that using an advisory council and developing effective public relations were top areas of need. Layfield and Dobbins (2002) suggested that specific learning opportunities target the needs identified by the study and aim to build the skills at the preservice and new teacher levels.

Myers, Dyer, and Washburn (2005) expanded on the research of new teacher inservice needs and used a Delphi study instead of the Borich Needs Assessment model to identify problems facing new teachers. Twenty-one expert teachers identified that three of the top five areas of need were related to community support issues. Organizing an effective alumni chapter, organizing an effective advisory council, and recruiting and retaining alumni members were the three problems related to support issues. "These are groups that, by their own definitions, are designed to assist teachers" (Myers et al., 2005, p. 54). While teachers saw the benefits of alumni chapters and advisory councils, teachers lacked skills to support and organize these support groups.

The professional development needs of practicing West Virginia and Utah agricultural educators were also identified (Boone & Boone, 2007; Sorensen et al., 2010). Boone and Boone (2007) conducted a study in West Virginia that compared the current

professional development needs of the teachers and compared it to the teachers' professional development needs when they began teaching. Based on the results of 95 participating teachers, developing community support increased in importance as the teacher taught for more years. Building community support ranked seventh as a beginning problem for agriculture teachers but increased to sixth when teachers were asked again. Similarly, 62 Utah agricultural teachers agreed that the top area of need was utilizing the community in providing opportunities for students (Sorensen et al., 2010). It was recommended that this data support professional development and inform preservice education.

Theoretical Foundation

The theoretical foundation of a study should articulate the rationale behind the relationships between variables (Kitchel & Ball, 2014). The theoretical foundation for the current study was Epstein's (2011) Theory of Overlapping Spheres of Influence of Family, School, and Community on Children's Learning. Epstein's (2011) theory of overlapping spheres includes external and internal structures, both of which influence the student. As depicted in Figure 2.1, the external structure of the family, school, and community partnerships model includes three overlapping spheres. Each sphere represents a different component of a complete partnership, which involves the family, school, and community. During childhood, these spheres may remain separate, depending on the level of early school and community involvement of the parents. As the child ages and enters formal education, the three spheres slowly begin to overlap (Epstein, 2011).

The internal structure of the theory of overlapping spheres focuses on the interpersonal relationships that occur within the external model (Epstein, 2011). These interpersonal relationships may occur between parents, children, educators, and the

community, which aids in increasing the overlap between the spheres. At the center of the internal structure is the student, who should always be the focus of the family, school, and community partnerships (Epstein, 2011).

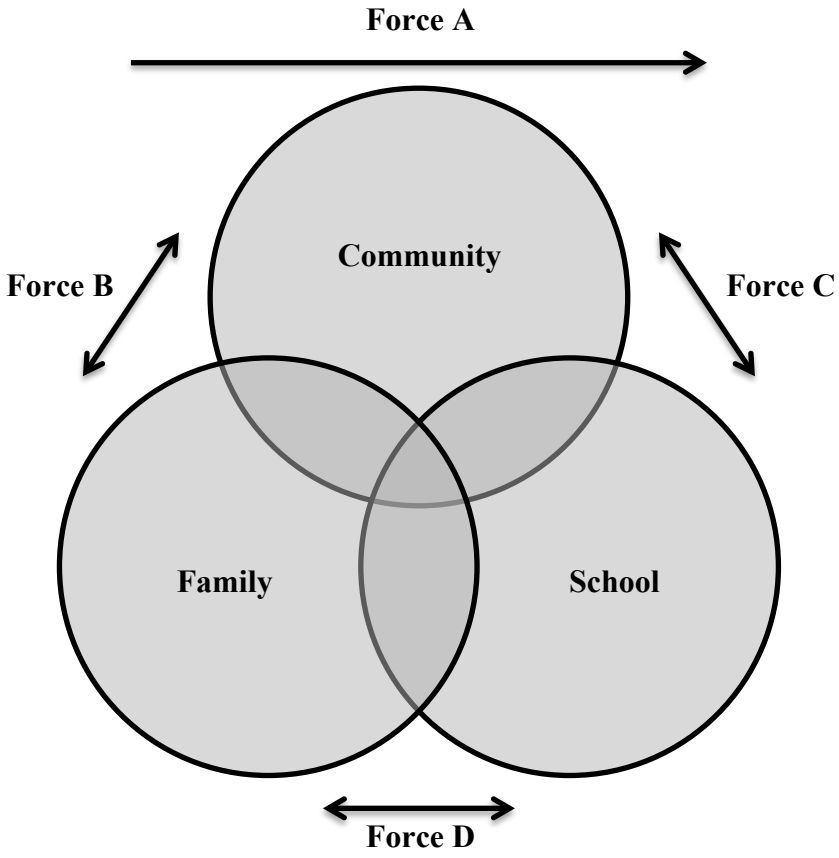

Figure 2.1

Epstein's Model of Overlapping Spheres of Influence of Family, School, and Community on Children's Learning

There are four forces that act upon the overall model (Epstein, 2011). Force A, which includes time, age, and grade level affects all three circles simultaneously. Force A can influence how overlapped or isolated the spheres are in a situation. The remaining three forces account for the experience, philosophy, and practices of the family, school, and community. The remaining three forces account for the following: Force B accounts for the

experience, philosophy, and practices of the family; Force C accounts for the experience, philosophy, and practices of the school; and Force D accounts for the experience, philosophy, and practices of the community (Epstein, 2011).

According to Epstein (2011), "the external and internal structures of the model are, of course, intimately related" (p. 35). The maximum overlap occurs when all three factors (family, school, and community) are true partners and have open communication and cooperative efforts. Since overlap of the family, school, and community is the primary goal, educators and researchers are urged to study all components of the school system and the interactions that occur (Epstein, 2011).

Epstein (1995) took the model of overlapping spheres and transformed it into a usable framework for educators. The six framework interactions are as follows: Type 1 – Parenting; Type 2 – Communicating; Type 3 – Volunteering; Type 4 – Learning at Home; 5 – Decision Making; and 6 – Collaborating with the Community. By including all six types, schools can develop full and productive program partnerships.

Conceptual Framework

According to Kitchel and Ball (2014), a conceptual framework is "a visual diagram or description indicating the relationships between or among variables" (p. 190). This framework should, however, be based on a theory or a visual representation of a theory (Camp, 2001). Kitchel and Ball (2014) further describe that, "conceptual frameworks can be used in quantitative research in agricultural education, but should not be used void of a theory or substantive review of the literature by which to support the study" (p. 195).

As depicted in Figure 2.2, the study was guided by the factors that related to the quality of school-based agricultural education programs. The current study focused

specifically on the areas highlighted in gray. The agriculture instructor is the first factor that affects program quality. The agriculture instructor brings unique, personal characteristics that affect program quality. Factors such as experience, education, beliefs, values, and background characteristics affect the agriculture teacher's influence on program quality. In the current study, the personal characteristics of the agriculture instructor were described to capture this initial influence on program quality. The agriculture teachers' views of agriculture program supporters were also described.

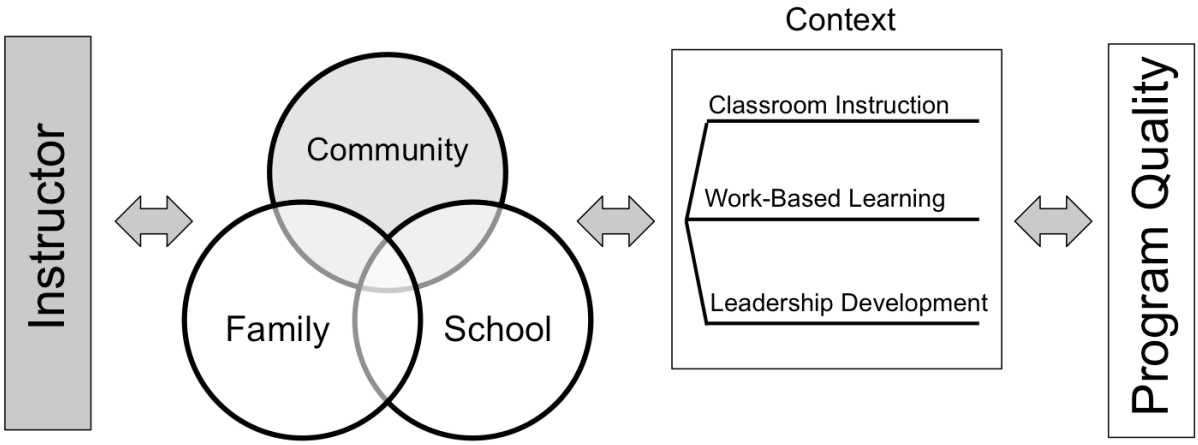

Figure 2.2

Influence of Family, School, and Community on Student Learning as it Relates to Secondary Agricultural Education Program Quality

Epstein's (2011) Overlapping Spheres of Influence of Family, School, and Community on Children's Learning Model served as the theoretical base of the current study. In the conceptual framework for the current study, the agriculture instructor uses the overlapping spheres model as a lens to look through to create a complete agricultural education program that is grounded by the families, school, and community. The student is at the center of family, school, and community spheres. The focus of the current study was

on the community sphere, highlighted in gray, and the characteristics that support program quality.

As described in the Overlapping Spheres of Influence of Family, School, and Community on Children's Learning Model, the community sphere contains some overlap between the family and school spheres. The community sphere in agricultural education contains the community-oriented, business and industry, and government-affiliated groups. As a result, the study sought to describe the community supporters and the interpersonal interactions that occur between the spheres. Because of the overlap from the family and school spheres, the current research study had to go beyond a description of the three community groups. Additional family-oriented support groups and their interactions with the agriculture teacher and community were added as factors in the study.

A final factor in the study was the complete agricultural education program. The complete program, which includes classroom/laboratory instruction, FFA, and SAE, is influenced by the context of the program, including the external factors that affect the program. Since the agriculture instructor uses the family, school, and community model to provide a quality agriculture program, the current study described the support roles that occurred for each aspect of the complete program model and sought to describe the agriculture teacher's views for each component of the complete agriculture program.

Summary

The importance and benefits of community partnerships in education is supported by the literature (Albrecht & Hinckley, 2012; Decker & Decker, 2003; Epstein, 1995; Phipps et al., 2008). With the student at the center of the partnership, both the school and community benefit (Epstein, 1995; Newcomb et al., 2004). Researchers in agricultural education have

also identified various groups in the community that provide important roles for the program (Foster et al., 2012; Masser et al., 2013; Tillinghast et al., 2013). Additional research is needed, however, to specifically identify the current influence that the community can have on the agriculture program to serve as a catalyst for change for creating agriculture program-community partnerships (Epstein, 1995, 2011; Martin & Henry, 2012).

Chapter 3:

Methods

Researchers who focus on school and community partnership development within education encouraged further investigation into strengthening these collaborations (Epstein, 2011; Martin & Henry, 2012). The following chapter outlines the methods and procedures used to address the purpose and objectives of this descriptive/relational study.

Purpose and Objectives

The purpose of this research study was to describe the supporters of school-based agricultural education programs in the Northwest (Idaho, Oregon, and Washington), as well as the teachers' views of agricultural education supporters. The Northwest was selected in an attempt to gain a regional perspective on school-based agricultural education supporters. The following eight objectives guided the study:

1. Describe the agricultural education program supporters.
2. Describe the roles of agricultural education program supporters.
3. Describe the communication strategies used by agricultural education teachers to contact stakeholders.
4. Describe the views of teachers on agricultural education program supporters.
5. Describe how teachers define "community."
6. Identify barriers to including agricultural education program supporters.
7. Describe the relationships between the teacher and agriculture program demographics and the views of teachers on agricultural education program supporters.

8. Identify characteristics of the teacher and program that are significant predictors of the views of teachers toward the total agricultural education program supporters.

Study Population

The target population of this study was all agricultural education teachers in the Northwestern United States. For the purpose of this study, Idaho, Oregon, and Washington were the three states that were classified as Northwestern states. The three states were chosen for the study in an attempt to describe a similar region in the United States. All teachers from the three Northwestern states, including those in multiple teacher programs, were included in the study. The total population was 490 agriculture teachers that taught in state-recognized program (Idaho = 123, Oregon = 110, and Washington = 257).

Because the target population was a manageable size, the researcher chose to conduct a census rather than employing a sampling procedure. Including all teachers in the study also provided the opportunity for each teacher in the Northwest to describe his/her current perceptions and the characteristics of the community-agricultural education program partnerships that existed.

Instrumentation

There were a limited number of quantitative instruments at the time of the study that focused on describing the supporters of school-based agricultural education programs. In response, the researcher used the experiences and input from each agricultural education state staff member in Idaho, Oregon, and Washington to assist in questionnaire development. In the fall of 2013, the researcher contacted the agricultural education state staff members from each state included in the current study and asked if they would provide their input on the agricultural education supporters and stakeholders in their respective

states. Each state staff member agreed to participate in a phone conversation to help inform the questionnaire development.

During the phone interview, the agricultural education state staff members described the common stakeholders of the agriculture programs in their states, common barriers that they have observed that hinder the inclusion of stakeholders, and additional information on the interactions between program stakeholders and the agriculture programs in their states. The information from the interviews was then compiled, reviewed, and incorporated into the questionnaire.

The information from the interviews was supplemented by the literature on community support for education. The literature on the support groups, barriers, communication methods, support roles, and teacher perceptions provided an additional source of information. The researcher also referenced the work of Tillinghast et al. (2013), who developed a questionnaire to describe the volunteers of Oklahoma agriculture programs. The instrument included questions on volunteer roles, training, and recognition. The researcher modified and expanded the item related to communication, supporter rewards, and barriers to fit the population of the current study.

Questionnaire content.

The online survey tool, *Qualtrics*, was used to create and administer the questionnaire (See Appendix 3). The content of the questionnaire was categorized into question blocks according to the study objectives. The questionnaire contained the following blocks of questions: description of the agricultural education supporters; roles of agricultural education supporters; communication methods with agricultural education supporters; teacher's views of agricultural education program supporters; barriers to community-

agriculture program interaction; the self-perceived definition of "community"; and demographic characteristics of the participants and schools.

The first block of the questionnaire sought to identify the agricultural education support groups, how the relationship originated, and the training that occurred for supporters. The first three items focused on identifying the entities that supported the agriculture program. The support groups were divided into community-based, business and industry, and government-affiliated entities. For each of the first three items, participants first indicated which of the groups supported their agriculture program by clicking and dragging the entity from the list to the box. All the items within the box were then ranked from 1-Most Supportive, 2-Second Most Supportive and so forth, until all entities that supported the agriculture program were ranked. A final open-ended response allowed participants to list any additional supporters that were not listed in the previous items.

The participants then answered four additional items on the relationships and training of their support groups. The first item allowed the participants to indicate the percentage of relationships that existed in the program when they first started teaching. A sliding bar was used for this item, allowing participants to answer from 1-100%. The next item was a nominal question that gathered who most often initiated the contact between the new stakeholder and the agriculture program. The final two items focused on the training of the supporters. Participants could indicate whether or not training was offered to the supporters of their program. If training was always or sometimes offered, the participants would select what type of training occurred for selecting all that applied to their situation.

The second block of questions focused on describing the roles of the agriculture program supporters. The roles were divided into three groups: classroom and laboratory,

FFA, and Supervised Agricultural Experience (SAE). For each group, the participants had to click on the types of support that were offered from the list and drag and drop them into the box on the right. The participants then ranked their responses for each group on how often that type of support occurred from 1 - Most Frequent, 2 - Second Most Frequent, and so forth. A final, open-ended item allowed participants to write in any additional roles that were not mentioned in the previous three questions.

The third block of questions focused on the communication methods used by the participants as they communicated with stakeholders, supporters, and administration. The first item in this block allowed the participants to select all the strategies they used when communicating with supporters of their program. The second item allowed participants to select all the strategies they used to communicate with all stakeholders, even those that did not support their program. A third item then focused on how the supporters are recognized for these efforts, where participants could select all the ways that these entities were recognized. The final item in this communication block sought to describe how school administrators learned about the supporters of the agriculture program. Again, the participants could select all communication methods that applied to their situation.

The fourth block of questions focused on the agriculture teachers' views of the agricultural education program supporters. The first question used a semantic differential approach, allowing the participants to select where their views fit between two extreme terms. Five different semantic differentials were presented in an attempt to describe the views of agriculture teachers toward the supporters of their program.

Four Likert scales were also used to describe the teacher's views on the supporters of the agriculture program. The scales were designed to operationalize the four constructs on

the teachers' views of classroom and laboratory instruction, FFA, SAE, and the total agriculture program supporters. All Likert scales included six points to measure the level of agreement (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree) and were treated as summated scales. Seven items operationalized the classroom and laboratory construct, eight items operationalized the FFA construct, and six items operationalized the SAE construct. The final total program construct included 30 items. All of the previous 21 items from the three components and an additional nine were all used to operationalize the total program construct.

A final Likert-type item was used in the fourth block of questions to describe how participants felt about professional development on agriculture program-community partnerships. This item used the same agreement identifiers (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree) as the four constructs but was analyzed individually.

The fifth block of questions focused on the barriers that prevented further collaboration with supporters. The first item addressed the barriers that prevented supporters from becoming a part of the agriculture program. Additionally, the second item focused on the barriers that prevented the agriculture teacher from including more stakeholders in the agriculture program. A final open-ended item allowed participants to share additional barriers or more, in-depth thoughts on the barriers that existed in their programs.

The sixth block was composed of two items that sought to explain the participant's definition of "community". The first, nominal item allowed the participants to select the size of their community in the context of their agriculture program. A second, open-ended

question allowed participants to add additional comments on their definition of "community".

The final question block was composed of teacher and agriculture program demographics. Participants provided their sex, years of teaching experience, number of instructors at the school, extended contract length, and how they became certified as an agriculture teacher. Teachers were also asked whether or not they lived in their school district and whether or not they grew up in their current district. The final set of teacher demographics focused on the participants' involvement in the National Association of Agricultural Educators (NAAE), their state agriculture teacher association, and community group involvement. Program demographics, including the number of students in the school district, high school, agriculture program, and FFA, were also gathered.

Validity.

According to Ary, Jocobs, Razavieh, and Sorensen (2009), validity is the extent to which an instrument measured what it claimed to measure. "Validity does not travel with the instrument" (Ary, Jacobs, Razavieh, & Sorensen, 2009, p. 243). Instead validity only applies to the population and setting it was designed to study (Ary et al., 2009).

The researcher addressed validity through multiple ways. A panel of experts was first used to add the translation validity of the instrument. According to Trochim and Donnelly (2009), "translation validity types (face and content validity) attempt to assess the degree to which you accurately *translated* your construct into the operationalization…" (p. 59).

The panel of experts consisted of four university faculty members in the agricultural education discipline. The panel members were sent an online link to the original questionnaire on *Qualtrics,* and were able to view the questionnaire exactly like a participant

of the study. By viewing the questionnaire in its final form, the panel of experts was able to address face validity by visually evaluating whether or not the questionnaire seems like an accurate translation of the construct. The panel of experts also checked the operationalization of the constructs and provided comments and suggestions on areas in need of refinement. The panel members were able to provide comments on a review guide provided by the researcher that asked for comments and suggestions for every item on the questionnaire.

Cognitive interviews were also used to further refine the research instrument and provide face validity. One past agriculture teacher and one current agriculture teacher were invited to complete the questionnaire. Both individuals separately completed the questionnaire with the researcher. According to Dillman, Smyth, and Christian (2009), cognitive interviews allow the interviewer to probe the participant as he/she completes the questionnaire. The participant is encouraged to think aloud as the researcher takes notes and asks probing questions to ensure that the participant is grasping the intent of the items (Dillman, Smyth, & Christian, 2009).

The cognitive interview with the past agriculture teacher took place as a phone interview. The individual completed the questionnaire on a desktop computer and shared comments, suggestions, and thoughts while completing each item. The second cognitive interview with the current agriculture teacher was conducted using Skype. The current teacher used an iPad to complete the questionnaire and provided feedback on how each item displayed on a mobile device. Additionally, the cognitive expert shared additional thoughts and suggestions on how to improve the directions for several items.

Suggestions from the panel of experts and the cognitive experts were addressed. Minor changes were made to add clarity to the directions for several items. Additional page breaks and formatting were completed to make the questionnaire more appealing and user-friendly on a mobile device. Item choices were also added where appropriate to ensure that all questions allowed the participant to accurately respond.

External validity, or "the degree to which the conclusions in your study would hold for other persons in other places and times" (Trochim & Donnelly, 2008, p. 34), was addressed using the proximal similarity model for external validity. Because the study was a census of all agriculture teachers in Idaho, Oregon, and Washington, no sampling methods were used to allow the results to be generalized to a larger population. The proximal similarity model for external validity, however, provides alternative methods for consumers of the research to generalize to a population of interest (Trochim & Donnelly, 2008). The researcher addressed external validity by providing characteristics about the agriculture teachers involved it the study, the time period that the data collection occurred, and the details about the questionnaire. According to the model, outlining characteristics of the setting, people, place, and time of the research provides consumers of the research enough information to determine if the results are generalizable to their populations of interest (Trochim & Donnelly, 2008).

Reliability.

"Reliability is the consistency or repeatability of your measures" (Trochim & Donnelly, 2008, p. 80). One way to address the reliability of the data is to conduct a pilot study of instrument used to collect the data (Gall, Gall, & Borg, 2007; Trochim & Donnelly,

2008). The pilot study results can assist in addressing the internal-consistency reliability and measurement error (Trochim & Donnelly, 2008).

A pilot study was conducted in Wyoming and Arizona using *Qualtrics*. All agriculture teachers that subscribed to the Wyoming and Arizona agricultural education listservs were included in the pilot study. Various other professionals such as undergraduate agricultural education students, professors of agricultural education, and additional stakeholders are also on the listservs. For the sake of the pilot study, only responses from current agriculture teachers were included in the pilot study data analysis.

The data collection for the pilot study began in March 2014. An anonymous link was sent out over both listservs, and all teachers were encouraged to provide input on the supporters of their agricultural education programs. Three follow-up reminder emails were sent in subsequent weeks requesting additional participation in the study and thanking those individuals who did respond.

After three weeks of data collection, responses from both Wyoming and Arizona were compiled into one data set. Data were reviewed for completion and all incomplete responses were deleted using listwise deletion. A total of 39 responses were included in the pilot study data analysis. The Statistical Package for the Social Sciences (SPSS) v.22 was used to code and analyze the pilot study data.

Cronbach's alpha reliability coefficients were calculated for the four constructs. The constructs included on the questionnaire attempted to operationalize the views of agricultural educators on the supporters of the classroom/laboratory component, FFA component, SAE component, and the total program. The reliability coefficients for each construct are summarized in Table 3.1. The Cronbach's alpha reliability coefficients for the

four constructs exceeded .60, which is the acceptable minimum for exploratory research pertaining to personality variables (Ary et al., 2006, p. 267; Hair, Black, Babin, Anderson, & Tatham, 2006).

Table 3.1

Pilot Study Cronbach's alpha Reliability Coefficients for Teacher Views of Agricultural Education Program Supporter Constructs (n = 39)

Construct	Number of Items	Coefficient
Supporters of Classroom & Laboratory	7	.79
Supporters of FFA	8	.86
Supporters of Supervised Agricultural Experience (SAE)	6	.62
Supporters of Overall Total Program	30	.90

Reducing total survey error.

Dillman et al. (2009) identifies four sources of error that can occur during survey research: sampling error, coverage error, measurement error, and nonresponse error. Because a census was conducted, sampling error was not a concern (Dillman et al., 2009). The remaining three sources, however, were addressed in the study.

Coverage error occurs when not everyone in the population is included in the study due to some external factor such as Internet access, incomplete frame, or incorrect information (Dillman et al, 2009). To address coverage error, the researcher thoroughly checked the frames used for the study. Teachers were cross-referenced with the list of active chapters on the National FFA Website as well as their respective school district site. Any incorrect emails that were bounced from the prenotice email were also changed prior to data collection.

According to Dillman et al. (2009), measurement error occurs when a respondent inaccurately answers a question, often due to poor instrument development. A pilot study

and cognitive experts were used to address measurement error (Trochim & Donnelly, 2008). The pilot study data were analyzed to identify misinterpreted information. The comments of cognitive experts were also used to refine each item and ensure the participants of the study understood the intent of each item.

Nonresponse error is the final source of error as outlined by Dillman et al. (2009). Nonresponse error occurs when those individuals who did not respond differ from those who did respond. One method to address nonresponse error is to compare the variables of interest between early to late responders (Lindner, Murphy, & Briers, 2001). According to Lindner, Murphy, and Briers (2001) a group of 30 or more late responders is recommended to ensure that an accurate comparison of early to late respondents can be made. Therefore, the researcher determined, *a priori,* that any participant who responded before the second reminder was considered an early responder and those who responded after the second reminder were considered late responders. The variables of interest included teacher demographics and the four constructs regarding teacher views of agricultural education supporters.

Population Frames

The teacher directories from Idaho, Oregon, and Washington were each obtained from the state directors or professional associations. The teaching directories were then reviewed by the researcher for completion and accuracy. The researcher used the school websites and the National FFA website to update current teachers and his or her current email address. Any school or teacher that no longer taught high school agriculture was deleted from the frame. Additional changes were also made after the prenotice email was

sent, which allowed the researchers to further identify incorrect email addresses. All teachers that could not be contacted by email were removed from the study.

Data Collection

Survey research methods were used for this descriptive/relational study. According to Trochim and Donnelly (2008), descriptive studies aim, "to describe what is going on or what exists", whereas relational studies seek to, "look at the relationships between two or more variables" (p. 5). The current study contains objectives that both describe the support for secondary agricultural education programs as well as compare the relationships that exist between the variables in the study.

The guidelines and recommendations of Dillman et al. (2009) were used to develop a strict data collection protocol. Specifically, the Tailored Design Method of survey research was used to guide the data collection process. According to Dillman et al., "the tailored design strategy involved a significant methodological shift from the one-size-fits-all approach to one in which solutions were tailored to most effectively and efficiently deal with the contingencies of different populations and survey situation" (p. 12). The Tailored Design Method allows a researcher to adapt the data collection procedures so that all contacts, survey procedures, and questionnaire items work together to encourage the participants to respond (Dillman et al., 2009, p. 16).

The researcher followed the recommendations of Dillman et al. (2009) for web survey implementation. As suggested by Dillman et al., contacts with the participants were personalized with the participant's first name when possible. The emails were also kept short and concise, but added enough detail so the participant understood how to accurately respond to the questionnaire. Dillman et al. also suggests strategically timing all contacts

with participants. Since the population was composed of agriculture teachers, the researcher sent all reminder emails early in the morning so that the contacts were near the top of their inbox when they arrived at school. Emails were also coordinated around FFA events as much as possible.

The researcher began the study by applying for exemption status from the University of Idaho Institutional Review Board (IRB). The project (Project: 14-23) was approved as exempt on February 5, 2014 (Appendix 1). Pilot data collection then began in March 2014, when an anonymous link was sent out to all teachers in Arizona and Wyoming. Final data collection then began after collecting and analyzing the 39 responses from the pilot study.

As outlined in Table 3.2, the data collection process began with a prenotice email sent to all 490 agriculture teachers from Idaho, Oregon, and Washington. The email was sent to the school email address of all agriculture teachers in the Northwestern United States requesting their participation in the study. The prenotice email outlined the purpose of the study and requested their help in advancing community support for agricultural education. As suggested by Dillman et al. (2009), asking for help or advice can help increase the response rate.

The initial email was then sent using the online survey tool *Qualtrics* to all participants requesting their participation in the study. The email contained a request for assistance in the study, the link to the online questionnaire, and contact information of the researcher. The remaining reminder emails followed the research-based suggestions of Dillman et al. (2009) by incorporating a "Thank-You" reminder and several follow-up emails indicating the amount of time left to complete the questionnaire (p. 276). Each subsequent reminder email also contained the participants' unique, confidential link to the

online questionnaire and contact information for the research in case of questions, concerns, or issues with the questionnaire link. A copy of all emails can be found in Appendix 2.

Table 3.2

Data Collection Timeline

Contact	Content	Beginning Date	Recipients
1	Prenotice Email: "Help us describe Ag Ed supporters"	3/25/2014	490
2	Initial Contact Email: "Agricultural Education Supporters Questionnaire"	3/27/2014	490
3	First Reminder Email: "Agricultural Education Supporters Questionnaire-Reminder"	4/2/2014	399
4	Thank You Email: "Thank you for your Partnership"	4/7/2014	101
4	2nd Reminder Email: "Thank you for your Partnership"	4/7/2014	265
5	Final Reminder: "Ag Ed Supporters-Help!"	4/15/2014	348
6	Follow-Up Phone Calls	4/21/2014	40
7	Survey Closed	4/27/2014	-

Two additional steps were taken to increase the response rate of the study. First, the state staff member in each state was contacted and asked to endorse the study through an email. One state staff member sent out the email to his/her state agriculture teachers

encouraging further participation. Second, follow-up phone calls were made to nonrespondents to provide one final opportunity to respond.

Data Analysis

The data collected from the study were downloaded from the online survey tool, *Qualtrics*, into SPSS. According to Trochim and Donnelly (2009), the first step in data analysis is data preparation, which involves checking the data for accuracy and completion. It was decided, prior to data analysis, that all incomplete data entries would be kept as long as the participants completed at least 75% of the questionnaire. All entries that were less than 75% complete were deleted using listwise deletion and not included in data analysis (Trochim & Donnelly, 2009).

Descriptive statistics were computed using SPSS to check for data normality and to address the objectives of the study. For nominal and ordinal data, frequencies, percentages were tabulated and reported. The median, with the range, was reported as the measure of central tendency. For all interval and ratio scaled data, the mean and standard deviation was calculated and reported (Cronk, 2012).

Analysis of Variance (ANOVA) and independent-samples *t* tests were calculated to describe the differences between groups in the study. Effects sizes were reported for all significant ANOVA and *t* test results. Eta-squared (Eta^2) values were reported to describe the proportion of variance that could be expressed by the ANOVA and independent-samples *t* tests (Privitera, 2012). Eta^2 effect size were described using the following descriptions: $Eta^2 < .01$ = trivial; $.01 < Eta^2 < .09$ = small; $.10 < Eta^2 < .25$ = medium; $Eta^2 > .25$ = large (Privitera, 2012, p. 271).

Pearson, Spearman *rho*, and point-biserial correlations were calculated to address the objectives of the study. The conventions used to describe the strength of the relationships were as follows: .01 to .09 = negligible association; .10 to .29 = low association; .30 to .49 = moderate association; .50 to .69 = substantial association; .70 or higher = very strong association (Davis, 1971). The coefficient of determination (R^2) was used to measure the effect size of significant correlations, where .01 = small effect, .09 = moderate effect, and .25 = large effect (Cronk, 2012, p. 123). Correlations are drastically affected by sample size so effect sizes and practical significance were considered when discussing the results of significant correlations (Cronk, 2012).

A multiple linear regression was calculated using the procedures outlined by Cronk (2012) and Field (2013). Stepwise factor loading was used to identify significant predictors of the teacher views of agriculture education program supporters. The coefficient of determination (R^2) was again used to measure the effect size, where .01 = small effect, .09 = moderate effect, and .25 = large effect (Cronk, 2012, p. 123).

Limitations of the Study

Readers of the study should be aware of two limitations of the study. The first limitation is that all agriculture teachers in the Northwestern United States were included in the study, making this a census of the agriculture teachers in the region and limiting the generalizability. Readers should generalize to other populations with caution. The researcher gathered characteristics and other descriptive data to inform readers of the demographics of the included population to address this limitation.

The second limitation of the study was that the agriculture teacher directories often change due to teacher retirement and email changes. Additions and changes were made

where necessary. However, the researcher may have unknowingly omitted agriculture teachers if they recently started a new program, teaching job, or if their email was incorrect.

Summary

Survey research methods were used to gather data, adding to the literature base on community-agriculture program partnerships. The objectives of the study guided the data collection and questionnaire construction. Reliability and validity were addressed using a pilot study and a panel of experts. Because all teachers were included in the study, readers should generalize to other populations with caution.

Chapter 4:

Results

The literature and procedures outlined in the previous chapters laid the foundation for the current research study. The following chapter will outline the results of the study. Data will be presented by the eight objectives in the study.

Purpose and Objectives

The purpose of this research study was to describe the supporters of school-based agricultural education programs in the Northwest (Idaho, Oregon, and Washington). The following objectives guided the study:

1. Describe the agricultural education program supporters.
2. Describe the roles of agricultural education program supporters.
3. Describe the communication strategies used by agricultural education teachers to contact stakeholders.
4. Describe the views of teachers on agricultural education program supporters.
5. Describe how teachers define “community.”
6. Identify barriers to including agricultural education program supporters.
7. Describe the relationships between the teacher and agriculture program demographics and the views of teachers on agricultural education program supporters.
8. Identify characteristics of the teacher and program that are significant predictors of the views of teachers toward the total agricultural education program supporters.

Response Rates

A response rate for each state and the overall Northwest was calculated. The response rates for the study are summarized in Table 4.1. An overall response rate of 35% (n = 172) was achieved for the Northwest. When each state is compared, Idaho had the highest response rate with 61% (n = 75), Oregon had a 30% response rate (n = 33), and Washington had the lowest response rate of 25% (n = 64).

Table 4.1

Study Response Rate by State

State	Number of Respondents	Total Population	Response Rate *(%)*
Idaho	75	123	61
Oregon	33	110	30
Washington	64	257	25
Northwest (Idaho, Oregon, and Washington)	172	490	35

Post hoc Reliabilities and Nonresponse Error

Post hoc reliability coefficients were calculated for the four constructs regarding the teacher views of agricultural education program supporters. The reliability coefficients for the teacher views of classroom and laboratory instruction, FFA, Supervised Agricultural Experience (SAE), and overall total program supporters are summarized in Table 4.2. The Cronbach's alpha reliability coefficients for the four constructs exceeded the acceptable minimum for exploratory research (Ary et al., 2006; Hair et al., 2006).

The responses of early and late responders were compared to address nonresponse error. Thirty-nine participants responded after the second reminder sent on April 7, 2014, designating them as late responders. The remaining participants responded prior to April 7, 2014 and were labeled as early respondents. No significant differences were found between

teacher demographics, program demographics, or the four constructs regarding the teacher views on community support.

Table 4.2

Post hoc Cronbach's alpha Reliability Coefficients for Teacher Views of Agricultural Education Program Supporter Constructs (n = 172)

Construct	Number of Items	Coefficient
Supporters of Classroom & Laboratory	7	.91
Supporters of FFA	8	.86
Supporters of Supervised Agricultural Experience (SAE)	6	.74
Supporters of Overall Total Program	30	.94

Agriculture Teacher and Program Demographics

Demographics of the participants and the agriculture programs were collected to describe the population of Northwest participants. The demographic information for each state can be found in Appendix 4. In the Northwest, 60 (34.9%) of the 172 participants were female and 112 (65.1%) were male. A majority of the respondents taught in one-teacher programs (n = 102, 60.7%), with the remaining teachers indicating that they taught in two (n = 32, 19.1%), three (n = 17, 10.1%), or four or more teacher programs (n = 17, 10.1%). In terms of teaching experience, the participants had a median of 13 total years of agriculture teaching experience, ranging from one to 39 years, and a median of nine years of agriculture teaching experience at their current program, ranging from less than a year to 36 years.

Teacher certification information was also gathered from the participants. One hundred thirty three (78.2%) of the 170 individuals who responded to the item were certified as an agriculture teacher through a 4-Year Degree Program, with the remaining individuals getting certified through a Post-Baccalaureate Certification Program (n = 21, 12.4%), or

alternative methods (n = 16, 9.4%). The participants also disclosed their extended contract details. The median number of extended contract days was 30, ranging from 0 to 90.

One hundred twelve (65.9%) of the 172 participants lived in the school district that they currently taught, with the remaining 58 (34.1%) living outside the district. Only 25 (14.7%) participants grew up in the school district that they current taught in at the time of the study. The remaining 145 (85.3%) were currently teaching in districts different than the one they attended as a student.

The participants were asked about their involvement in the National Association of Agricultural Educators (NAAE), their state agricultural education association, and additional community organization involvement. As summarized in Table 4.3, 139 (81.8%) of the 170 participants who responded were members of NAAE, with the remaining 31 (18.2%) who were not. Looking at each Idaho, Oregon, and Washington individually, 59 (79.7%), 25 (75.8%), and 55 (87.3%) of participants respectively were NAAE members.

Table 4.3

Agricultural Education Professional Organization Involvement by Northwest Agriculture Teachers

Professional Organization	Northwest (n = 170)	Idaho (n = 74)	Oregon (n = 33)	Washington (n = 63)
	f (%)	*f (%)*	*f (%)*	*f (%)*
NAAE Membership				
Yes	139 (81.8)	59 (79.7)	25 (75.8)	55 (87.3)
No	31 (18.2)	15 (20.3)	8 (24.2)	8 (12.7)
State Ag. Ed. Association Membership				
Yes	150 (88.2)	60 (81.1)	30 (90.9)	60 (95.2)
No	20 (11.8)	14 (18.9)	3 (9.1)	3 (4.8)

A follow-up item looked at the current membership of the participants in their state associations. Of the 170 who answered the item, 150 (88.2%) were members of their state's agriculture teacher association; 20 (11.8%) were not members. In Idaho, 81.1% (n = 60) of participants were a part of the Idaho Vocational Agriculture Teachers Association (IVATA) and 14 (18.9%) were not. Thirty of the 33 (90.9%) Oregon respondents were Oregon Vocational Agriculture Teacher's Association (OVATA) members, with 3 (9.1%) who indicated they were not members. Of the Washington respondents, 60 (95.2%) were members of the Washington Association of Agricultural Educators (WAAE) and 3 (4.8%) were not.

Participants were asked to provide information on additional organizations that they belonged to in the community. Participants could select all the organizations that applied to their situation. The results are summarized in Table 4.4. The Northwest agriculture teachers included in the study were most often involved with fair/exhibition boards, agriculture-related professional organizations, and religious organizations. A final, open-ended item was used to capture additional organization involvement. A total of 34 different organizations were added to the list, such as educational associations (n = 11), wildlife organizations (n = 5), and livestock and rodeo associations (n = 3).

Table 4.4

Community Organization Involvement by Northwest Agriculture Teachers

Community Organization	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Fair/Exhibition Boards	**97 (56.4)**	**38 (50.7)**	**17 (51.5)**	**42 (65.6)**
Ag-Related Professional Organizations	**89 (51.7)**	**34 (45.3)**	**15 (45.5)**	**40 (62.5)**
Religious Organizations	**76 (44.2)**	**45 (60.0)**	9 (27.3)	22 (34.4)
Volunteer Organizations	73 (42.4)	32 (42.7)	**10 (30.3)**	**31 (48.4)**
Civic Organizations	17 (9.9)	3 (4.0)	3 (9.1)	11 (17.2)
Gun/Trap Clubs	16 (9.3)	2 (2.7)	1 (3.0)	13 (20.3)
Fraternal Organizations	7 (4.1)	1 (1.3)	2 (6.1)	4 (6.3)

Note. The top three community organizations for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

Additional agriculture program demographics were collected from the participants. As listed in Table 4.5, each participant specified the size of his/her school district, high school, agriculture program, and FFA. Due to the extreme disparity in the range of school sizes, the median for each area was reported. The median school district size of the participants was 1,456 students, ranging from 60 to 47,000 students. The median high school size was 468.5 students, ranging from 18 to 7,500. When focusing on the agriculture program, the median agriculture program size was 122 unduplicated students, ranging from zero to 2,500, with a median FFA involvement of 46.5 students (*Range* = 0 – 326).

Table 4.5

Student Enrollment in Northwest

Population Parameter	Northwest (*n* = 170)	Idaho (*n* = 74)	Oregon (*n* = 33)	Washington (*n* = 63)
	Mdn (Range)	*Mdn Range*	*Mdn Range*	*Mdn Range*
School District	1,456 (60 - 47,000)	1,100 (64 - 35,000)	700 (60 - 20,000)	2,000 (71 - 47,000)
High School	468.5 (18 - 7,500)	312 (30 - 7,500)	220 (23 - 5,500)	700 (18 - 2,200)
Unduplicated Ag. Students	122 (0 - 2,500)	125 (20 - 2,500)	82 (19 - 328)	150 (0 - 1,050)
FFA	46.5 (0 - 326)	45 (0 - 309)	60 (14 - 153)	50 (0 - 326)

Objective 1: Description of the Agricultural Education Program Supporters

Objective 1 of the study focused on describing the agricultural education program supporters. The support entities were separated into three different categories: community-based, business and industry, and government-affiliated entities. Respondents first had to select which entities supported their agriculture program. The respondents then had to rank how supportive the support entities were in their program.

The first category of support entities was community-based entities. The community-based entities that most often support Northwest agriculture programs are summarized in Table 4.6. Parents/families of current students (*n* = 141, 82.0%), advisory councils (*n* = 138, 80.2%), and school personnel (*n* = 121, 70.3%) were the three most frequently selected community supporters of Northwest agriculture programs.

Table 4.6

Agricultural Education Community-Based Support Entities in the Northwest

Community-Based Entity	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Parents/Families of Current Students	**141 (82.0)**	**66 (88.0)**	**28 (84.8)**	**47 (73.4)**
Advisory Council	**138 (80.2)**	**63 (84.0)**	21 (63.6)	**54 (84.4)**
School Personnel	**121 (70.3)**	**52 (69.3)**	**29 (87.9)**	40 (62.5)
Parents/Families of Past Students	119 (69.2)	50 (66.7)	**27 (81.8)**	**42 (65.6)**
Community Members (Unattached to a Group)	101 (58.7)	43 (57.3)	18 (54.5)	40 (62.5)
FFA Alumni	89 (51.7)	34 (45.3)	26 (78.8)	29 (45.3)
Fair/Exhibition Boards	77 (44.8)	33 (44.0)	17 (51.5)	27 (42.2)
Civic Organizations	67 (39.0)	29 (38.7)	10 (30.3)	28 (43.8)
Other High School Ag. Education Programs	50 (29.1)	15 (20.0)	18 (54.5)	17 (26.6)
Community Youth Organizations	40 (23.3)	22 (29.3)	9 (27.3)	9 (14.1)
Political Leaders	39 (22.7)	21 (28.0)	4 (12.1)	14 (21.9)
Parent Booster Club	29 (16.9)	12 (16.0)	4 (12.1)	13 (20.3)
School-Based Student Groups	25 (14.5)	8 (10.7)	5 (15.2)	12 (18.8)
Gun/Trap Clubs	23 (13.4)	2 (2.7)	5 (15.2)	16 (25.0)
Volunteer Organizations	21 (12.2)	8 (10.7)	2 (6.1)	11 (17.2)
Fraternal Organizations	20 (11.6)	10 (13.3)	4 (12.1)	6 (9.4)
Religious Organizations	9 (5.2)	5 (6.7)	2 (6.1)	2 (3.1)

Note. The top three community-based entities for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

Participants also ranked each community-based entity that supported their program on the level of support, where 1 = Most Supportive, 2 = Second Most Supportive, and so forth. The final ranks were achieved by taking the average rankings from all participants. The support entity with the lowest mean was deemed the most supportive. The results of the ranking are outlined in Table 4.7. Advisory councils were selected as the most supportive community-based entity for northwest agricultural education programs. FFA Alumni and parents/families of current students were the second and third most supportive entity, respectively.

Table 4.7

Level of Support Rankings for Agricultural Education Community-Based Support Entities in the Northwest

Community-Based Entity	Northwest (n = 172)		Idaho (n = 75)		Oregon (n = 33)		Washington (n = 64)	
	Rank	*M*	Rank	*M*	Rank	*M*	Rank	*M*
Advisory Council	1	2.09	1	2.02	2	2.43	1	2.06
FFA Alumni	2	2.26	2	2.53	1	1.88	2	2.28
Parents/Families of Current Students	3	2.82	3	2.48	3	2.89	3	3.26
Parents/Families of Past Students	4	4.08	4	3.86	5	4.22	4	4.24
School Personnel	5	4.40	5	4.21	6	4.59	6	4.50
Community Members (Unattached to a Group)	6	4.79	6	4.70	7	5.00	8	4.80
Parent Booster Club	7	5.24	11	6.67	4	4.00	5	4.31
Fair/Exhibition Boards	8	5.34	7	5.42	8	5.82	9	4.93
High School Ag. Ed. Programs	9	5.36	9	6.53	9	5.06	7	4.65
Civic Organizations	10	5.39	8	5.66	10	5.10	10	5.21
Community Youth Organizations	11	6.93	10	6.55	13	7.33	12	7.44
Gun/Trap Clubs	12	7.04	17	12.5	11	6.00	11	6.69
School-Based Student Groups	13	7.72	14	7.50	12	7.20	13	8.08
Political Leaders	14	7.87	12	7.29	16	8.50	15	8.57
Fraternal Organizations	15	7.95	13	7.40	15	8.25	16	8.67
Volunteer Organizations	16	8.29	15	8.00	14	8.00	14	8.55
Religious Organizations	17	11.0	16	10.2	16	8.50	17	15.5

Note. Means were calculated based on each community-based entity's ranking by the participants, with 1 = Most Supportive, 2 = Second Most Supportive, and so on until all entities that supported the agriculture program were ranked. The final rank represents how supportive each group was to the agriculture program as perceived by the participants.

The second category of support groups was business and industry entities. The business and industry entities that most often support Northwest agriculture programs are summarized in Table 4.8. The top three business and industry supporters were the same for Idaho, Oregon, Washington, and the entire Northwest. Local agribusinesses (*n* = 140, 81.4%), farmers/ranchers (*n* = 138, 80.2%), and local businesses not agriculturally related (*n* = 120, 69.7%) were the three most frequently selected business and industry supporters of Northwest agriculture programs.

Table 4.8

Agricultural Education Business and Industry Support Entities in the Northwest

Business and Industry Entity	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Local Agribusinesses	**140 (81.4)**	**59 (78.7)**	**28 (84.8)**	**53 (82.8)**
Farmers/Ranchers	**138 (80.2)**	**65 (86.7)**	**29 (87.9)**	**44 (68.8)**
Local Businesses (Non-Ag Related)	**120 (69.8)**	**51 (68.0)**	**26 (78.8)**	**43 (67.2)**
Farm Bureau	84 (48.8)	38 (50.7)	17 (51.5)	29 (45.3)
Ag-Related Professional Organizations	79 (45.9)	35 (46.7)	13 (39.4)	31 (48.4)
Forestry/Natural Resource Businesses	46 (26.7)	21 (28.0)	11 (33.3)	14 (21.9)
Commodity Groups	39 (22.7)	19 (25.3)	5 (15.2)	15 (23.4)
Mining Representatives	11 (6.4)	6 (8.0)	-	5 (7.8)
Oil/Gas Industry Representatives	6 (3.5)	2 (2.7)	-	4 (6.3)

Note. The top three business and industry entities for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

Participants ranked the business and industry entities that supported the agriculture program on the entity's level of support, where 1 = Most Supportive, 2 = Second Most Supportive, and so forth. As outlined in Table 4.9, each entity was ranked according to their level of support and was reported for each state and the entire Northwest. Local agribusinesses were identified as the most supportive business and industry entity in the Northwest. The second most supportive entity was farmers and ranchers, with agriculture-related professional organizations achieving a final ranking of third.

Table 4.9

Level of Support Rankings for Agricultural Education Business and Industry Support Entities in the Northwest

Business and Industry Entity	Northwest (n = 172)		Idaho (n = 75)		Oregon (n = 33)		Washington (n = 64)	
	Rank	*M*	Rank	*M*	Rank	*M*	Rank	*M*
Local Agribusinesses	1	2.03	2	2.05	2	2.11	1	1.96
Farmers/Ranchers	2	2.09	1	2.03	1	2.03	2	2.20
Ag-Related Professional Orgs.	3	2.96	4	3.17	3	2.23	5	3.03
Farm Bureau	4	2.98	3	2.87	5	3.18	4	3.00
Local Businesses (Non-Ag Related)	5	3.28	6	3.71	4	3.15	3	2.84
Forestry/Natural Resource Businesses	6	3.43	5	3.43	6	3.82	6	3.14
Commodity Groups	7	4.15	7	3.89	7	5.00	7	4.20
Mining Representatives	8	5.82	8	4.33	8	-	9	7.60
Oil/Gas Industry Representatives	9	7.33	9	8.00	8	-	8	7.00

Note. Means were calculated based on each community-based entity's ranking by the participants, with 1 = Most Supportive, 2 = Second Most Supportive, and so on until all entities that supported the agriculture program were ranked. The final rank represents how supportive each group was to the agriculture program as perceived by the participants.

The third category of support entities was government-affiliated entities. The government-affiliated entities that most frequently supported Northwest agriculture programs are summarized in Table 4.10. The top three government-affiliated entities were cooperative extension service (*n* = 117, 68.0%), university faculty/staff (*n* = 104, 60.5%), and Natural Resource Conservation Service (NRCS) (*n* = 77, 44.8%).

Table 4.10

Agricultural Education Government-Affiliated Support Entities in the Northwest

Government-Affiliated Entity	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Cooperative Extension Service	**117 (68.0)**	**54 (72.0)**	**24 (72.7)**	**39 (60.9)**
University Faculty/Staff	**104 (60.5)**	**45 (60.0)**	**20 (60.6)**	**39 (60.9)**
Natural Resource Conservation Service	**77 (44.8)**	**39 (52.0)**	**16 (48.5)**	**22 (34.4)**
Fish and Game	54 (31.4)	30 (40.0)	6 (18.2)	18 (28.1)
Department of Agriculture	53 (30.8)	23 (30.7)	9 (27.3)	21 (32.8)
Master Gardeners	39 (22.7)	11 (14.7)	9 (27.3)	19 (29.7)
Forest Service Group	37 (21.5)	18 (24.0)	8 (24.2)	11 (17.2)
Bureau of Land Management	36 (20.9)	24 (32.0)	7 (21.2)	5 (7.8)
Forest Products Commission	19 (11.0)	14 (18.7)	-	5 (7.8)

Note. The top three government-affiliated entities for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

Participants ranked each government-affiliated entity on its level of support. The results of the final ranks are outlined in Table 4.11. When looking at the Northwest, the Cooperative Extension Service, University faculty/staff, and the NRCS were the highest ranked entities, respectively.

Table 4.11

Level of Support Rankings for Agricultural Education Government-Affiliated Support Entities in the Northwest

Government-Affiliated Entity	Northwest (n = 172)		Idaho (n = 75)		Oregon (n = 33)		Washington (n = 64)	
	Rank	*M*	Rank	*M*	Rank	*M*	Rank	*M*
Cooperative Extension Service	1	1.85	2	2.00	1	1.58	1	1.82
University Faculty/Staff	2	2.13	1	1.96	2	2.25	2	2.28
Natural Resource Conservation Service	3	2.96	4	3.21	6	3.19	3	2.36
Fish and Game	4	3.06	3	3.07	8	3.67	4	2.83
Department of Agriculture	5	3.26	5	3.87	3	2.44	5	2.95
Master Gardeners	6	3.46	9	4.73	4	2.67	6	3.11
Forest Service Group	7	3.57	6	3.89	5	2.88	7	3.55
Bureau of Land Management	8	3.97	7	3.92	7	3.29	8	5.20
Forest Products Commission	9	4.63	8	4.43	9	-	9	5.20

Note. Means were calculated based on each community-based entity's ranking by the participants, with 1 = Most Supportive, 2 = Second Most Supportive, and so on until all entities that supported the agriculture program were ranked. The final rank represents how supportive each group was to the agriculture program as perceived by the participants.

Another aspect of Objective 1 was to describe the percentage of relationships that existed between the agriculture program and supporters when the participant started teaching at his/her program. A total of 153 participants from the entire Northwest answered this item. A mean percentage of 42.0 (*SD* = 33.3) and a median of 31.00 (Range = 0 – 100) was calculated. Furthermore, 64 Northwest participants (41.8%) selected that 0% - 25% of the partnerships were established. The mean, standard deviation, median, and range for each state are summarized in Table 4.12 for each state and the overall Northwest.

Table 4.12

Percentage of Agriculture Program-Supporter Relationships Established Previous to Current Employment

Population	*M %*	*SD*	*Mdn %*	*Range*
Northwest (*n* = 153)	42.0	33.3	31	0 – 100
Idaho (*n* = 70)	44.0	32.9	30.5	0 – 100
Oregon (*n* = 28)	40.0	32.9	40.5	0 – 99
Washington (*n* = 55)	40.5	34.5	30	0 – 100

The final part of Objective 1 sought to describe the training methods used to prepare supporters to assist the agriculture program. Respondents first had to indicate if supporters received training all the time, sometimes, or never prior to assisting the agriculture program. A total of 23 (13.4%) participants answered that community supporters never received training prior to helping the program. The other 149 answered that some form of training was used either all the time (*n* = 28, 16.3%) or sometimes (*n* = 121, 70.3%).

The 149 participants that selected that a training program was used, all the time or sometimes, answered a follow up question that gathered the type of training program that had been most effective for the respondent in the past. The responses to this item are summarized in Table 4.13. The most frequently selected training method by Northwest participants was an informal discussion between the agriculture teacher and the supporter (*n* = 125, 72.7%). A written document (*n* = 62, 36.0%) and a formal training program facilitated by the agriculture teacher (*n* = 42, 24.4%) were the second and third most frequently selected effective training methods.

Table 4.13

Frequency of Effective Training Methods for Supporters of Northwest Agricultural Education Programs

Training Method	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Informal Discussion (Between Ag. Teacher and Supporter)	**125 (72.7)**	**54 (72.0)**	**23 (69.7)**	**48 (75.0)**
Written Document (Prepared by the Ag. Teacher)	**62 (36.0)**	**24 (32.0)**	**13 (39.4)**	**25 (39.1)**
Formal Training Program (Facilitated by the Ag. Teacher)	**42 (24.4)**	**14 (18.7)**	**12 (36.4)**	**16 (25.0)**
Training Conducted by the Students	30 (17.4)	**14 (18.7)**	3 (9.1)	13 (20.3)
Formal Training Program (Not Ag. Teacher Facilitated)	14 (8.1)	3 (4.0)	5 (15.2)	6 (9.4)
Written Document (Not Prepared by the Ag. Teacher)	14 (8.1)	5 (6.7)	4 (12.1)	5 (7.8)
Self-Guided Online Training	3 (1.7)	1 (1.3)	-	2 (3.1)

Note. The three most frequently selected effective training methods for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

Objective 2: Roles of Agricultural Education Program Supporters

Objective 2 of the study was to describe the roles of the agricultural education program supporters in the Northwest. The roles of the supporters were divided into three categories: Support for classroom and laboratory component; Support for the FFA component; and, Support for the Supervised Agricultural Experience (SAE) component. For each component, participants first selected which roles occurred in their program. Participants then had to rank each role that occurred based on how frequently that occurred

in their program by ranking each support role, where 1 = Most Frequent, 2 = Second Most Frequent, and so on until all roles were ranked.

Participants first selected the roles that occurred to support the classroom and laboratory component of the program. The frequencies of the 15 classroom and laboratory component support roles are summarized in Table 4.14. Of the 172 participants in the Northwest, 138 identified that supporters provided field trips opportunities (80.2%) for their agriculture program. Additionally, 137 participants (79.7%) answered that supporters served as guest speakers in their classrooms and laboratories. Material donations were the third support role most frequently selected by participants in the Northwest (n = 91, 52.9%).

Table 4.14

Classroom and Laboratory Component Roles of Agricultural Education Program Supporters

Support Type	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Field Trip Opportunities	**138 (80.2)**	**61 (81.3)**	**26 (78.8)**	**51 (79.7)**
Guest Speakers	**137 (79.7)**	**58 (80.6)**	**28 (84.8)**	**51 (79.7)**
Material Donations	**91 (52.9)**	**36 (48.0)**	**25 (75.8)**	**30 (46.9)**
Financial Support (Classroom/Lab or Teacher Professional Development)	77 (44.8)	**36 (48.0)**	13 (39.4)	28 (43.8)
Program Advocacy (Verbal/Non Verbal)	75 (43.6)	32 (42.7)	17 (51.5)	26 (40.6)
Teacher Resources	69 (40.1)	35 (46.7)	8 (24.2)	26 (40.6)
Job Shadowing	61 (35.5)	28 (37.3)	11 (33.3)	22 (34.4)
Teacher Training Workshops/Courses	61 (35.5)	25 (33.3)	12 (36.4)	24 (37.5)
Curriculum Advice	57 (33.1)	22 (29.3)	11 (33.3)	24 (37.5)
Chaperones for Class Field Trips	54 (31.4)	15 (20.0)	18 (54.5)	21 (32.8)
Equipment Use/Rental	46 (26.7)	17 (22.7)	16 (48.5)	13 (20.3)
School Facility Repairs/Improvements	45 (26.2)	16 (21.3)	11 (33.3)	18 (28.1)
Internships	41 (23.8)	18 (24.0)	13 (39.4)	10 (15.6)
Transportation to Curriculum-Related Events	37 (21.5)	10 (13.3)	10 (30.3)	17 (26.6)
Facilities for Classes/Workshops	31 (18.0)	12 (16.0)	6 (18.2)	13 (20.3)

Note. The three most frequently selected classroom and laboratory roles for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

The respondents ranked each classroom and laboratory support type based on how frequently each occurred in the program, where 1 = Most Frequent, 2 = Second Most Frequent, and so forth. The ranks for each of the 15 items are outlined in Table 4.15. Northwest participants revealed that supporters provided field trip opportunities most frequently for the program, served as guest speakers second most frequently for the program, and provided program advocacy third most frequently for the program.

Table 4.15

Ranking of Most Frequently Occurring Types of Classroom and Laboratory Instruction Component Support in Northwest Agricultural Education Programs

Support Type	Northwest (n = 172)		Idaho (n = 75)		Oregon (n = 33)		Washington (n = 64)	
	Rank	*M*	Rank	*M*	Rank	*M*	Rank	*M*
Field Trip Opportunities	1	3.14	1	2.77	6	4.04	2	3.12
Guest Speakers	2	3.24	2	2.88	5	3.79	3	3.35
Program Advocacy (Verbal/Non Verbal)	3	3.61	4	3.69	4	3.59	4	3.54
Financial Support (Classroom/Lab or Teacher Professional Development)	4	3.78	3	3.67	2	3.23	5	4.18
Material Donations	5	4.03	5	3.92	3	3.52	8	4.60
Transportation to Curriculum-Related Events	6	4.65	15	6.40	1	2.80	10	4.71
Teacher Resources	7	4.70	9	5.00	9	5.00	6	4.19
Chaperones for Class Field Trips	8	4.72	7	4.80	7	4.56	12	4.81
Teacher Training Workshops/Courses	9	4.75	13	5.92	12	5.75	1	3.04
School Facility Repairs/Improvements	10	5.04	9	5.00	11	5.55	11	4.78
Job Shadowing	11	5.30	11	5.36	13	6.55	7	4.59
Curriculum Advice	12	5.35	14	6.36	8	4.91	9	4.63
Facilities for Classes/Workshops	13	5.58	8	4.83	15	7.33	13	5.46
Internships	14	5.59	6	4.44	14	6.85	14	6.00
Equipment Use/Rental	15	5.72	12	5.71	10	5.00	15	6.62

Note. Means were calculated based on the ranks selected by the participants on how frequently the classroom and laboratory support roles occurred in the program, with 1 = Most Frequent, 2 = Second Most Frequent, and so on until all roles were ranked.

The FFA component was the second category addressed by the participants. Participants selected all roles that occurred by individuals in their program to support the FFA component of the program. The responses of the participants are detailed in Table 4.16. Of the 172 participants, 118 identified that supporters assisted with fundraising (68.6%), 110 responded (64.0%) that supporters served as Career Development Event (CDE) judges, and 90 participants marked that supporters provided scholarship opportunities (52.3%).

Table 4.16

FFA Component Roles of Agricultural Education Program Supporters

Support Type	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Fundraising	**118 (68.6)**	**53 (70.7)**	**24 (72.7)**	**41 (64.1)**
CDE Judges	**110 (64.0)**	40 (53.3)	**27 (81.8)**	**43 (67.2)**
Scholarship Opportunities	**90 (52.3)**	**41 (54.7)**	**21 (63.6)**	28 (43.8)
FFA Event Chaperones	82 (47.7)	24 (32.0)	**21 (63.6)**	**37 (57.8)**
Material Donation	75 (43.6)	33 (44.0)	16 (48.5)	26 (40.6)
CDE Practice Events	71 (41.3)	**41 (54.7)**	11 (33.3)	19 (29.7)
Chapter Banquet Assistance	69 (40.1)	30 (40.0)	**21 (63.6)**	18 (28.1)
CDE Coaches	67 (39.0)	33 (44.0)	14 (42.4)	20 (31.3)
Leadership Development Opportunities	49 (28.5)	27 (36.0)	6 (18.2)	16 (25.0)
Running Chapter CDEs	32 (18.6)	11 (14.7)	4 (12.1)	17 (26.6)
Member Recruitment	31 (18.0)	18 (24.0)	4 (12.1)	9 (14.1)
Assist with Awards/Proficiency Apps.	24 (14.0)	8 (10.7)	6 (18.2)	10 (15.6)

Note. The three most frequently selected FFA roles for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

The respondents ranked each FFA support type based on how frequently each occurred in the program, where 1 = Most Frequent, 2 = Second Most Frequent, and so forth. The ranks for each of the 12 items are outlined in Table 4.17. Northwest participants specified that supporters served as CDE judges most often, assisted with fundraising second most often for the program, and served as FFA event chaperones third most frequently for the FFA aspect of the program.

Table 4.17

Ranking of Most Frequently Occurring Types of FFA Component Support in Northwest Agricultural Education Programs

Support Types	Northwest (n = 172)		Idaho (n = 75)		Oregon (n = 33)		Washington (n = 64)	
	Rank	*M*	Rank	*M*	Rank	*M*	Rank	*M*
CDE Judges	1	2.35	2	2.62	1	2.11	1	2.26
Fundraising	2	2.54	1	2.15	3	3.13	2	2.71
FFA Event Chaperones	3	3.06	5	3.54	2	2.38	4	3.14
CDE Practice Events	4	3.11	3	3.07	5	3.91	3	2.74
CDE Coaches	5	3.48	4	3.15	6	4.00	5	3.65
Scholarship Opportunities	6	4.22	6	4.27	8	4.24	6	4.14
Chapter Banquet Assistance	7	4.59	8	4.60	7	4.19	10	5.06
Material Donation	8	4.67	7	4.55	9	4.88	9	4.69
Running Chapter CDEs	9	4.72	10	5.55	4	3.75	7	4.41
Leadership Development Opportunities	10	5.16	9	5.22	12	6.83	8	4.44
Member Recruitment	11	6.03	11	6.39	11	4.75	11	5.89
Assist with Awards/Proficiency Applications	12	6.33	12	7.25	10	4.67	12	6.60

Note. Means were calculated based on the ranks selected by the participants on how frequently the FFA support roles occurred in the program, with 1 = Most Frequent, 2 = Second Most Frequent, and so on until all roles were ranked.

The SAE component was the third category of support addressed by the participants. Participants selected the roles that occurred in their program to support the SAE component of the program. Table 4.18 contains the results of the ten items. Of the 172 participants in the Northwest, 113 identified that supporters assisted with job placement opportunities (65.7%), 110 responded (64.0%) that supporters were livestock buyers for student SAEs, and 89 participants indicated that supporters helped to supervise student SAEs (51.7%).

Table 4.18

Supervised Agricultural Experience (SAE) Component Roles of Agricultural Education Program Supporters

Support Type	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Job Placement Opportunity	**113 (65.7)**	**53 (70.7)**	**22 (66.7)**	**38 (59.4)**
Livestock Buyer	**110 (64.0)**	**46 (61.3)**	**28 (84.8)**	**36 (56.3)**
Supervision of SAEs	**89 (51.7)**	**40 (53.3)**	**16 (48.5)**	**33 (51.6)**
Mentors	85 (49.4)	**40 (53.3)**	**16 (48.5)**	29 (45.3)
Facilities for Student SAEs	65 (37.8)	26 (34.7)	13 (39.4)	26 (40.6)
Material Donation	59 (34.3)	22 (29.3)	11 (33.3)	26 (40.6)
Donation of Services	53 (30.8)	21 (28.0)	10 (30.3)	22 (34.4)
Tools/Equipment Donation	45 (26.2)	15 (20.0)	8 (24.2)	22 (34.4)
Laboratory Assistance	27 (15.7)	9 (12.0)	5 (15.2)	13 (20.3)
Tools/Equipment Rental	17 (9.9)	6 (8.0)	4 (12.1)	7 (10.9)

Note. The three most frequently selected SAE roles for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

The respondents ranked each support role for the SAE category on how frequently each occurred in the program, where 1 = Most Frequent, 2 = Second Most Frequent, and so on until all answers were ranked. The ranks for each of the SAE items are outlined in Table 4.19. Northwest participants revealed that supporters provided job placement opportunities most frequently for students, supervised SAEs second most frequently, and were livestock buyers third most frequently for the SAE aspect of the agriculture program.

Table 4.19

Ranking of Most Frequently Occurring Types Supervised Agricultural Experience (SAE) Component Support in Northwest Agricultural Education Programs

Support Type	Northwest (n = 172)		Idaho (n = 75)		Oregon (n = 33)		Washington (n = 64)	
	Rank	*M*	Rank	*M*	Rank	*M*	Rank	*M*
Job Placement Opportunity	1	1.93	1	1.74	3	2.55	1	1.84
Supervision of SAEs	2	2.15	2	2.10	1	2.25	2	2.15
Livestock Buyer	3	2.76	3	3.04	2	2.54	3	2.58
Facilities for Student SAEs	4	3.26	5	3.77	5	3.62	3	2.58
Mentors	5	3.32	4	3.15	4	2.81	7	3.83
Material Donation	6	3.78	6	4.00	7	4.00	5	3.50
Donation of Services	7	4.28	7	4.62	10	4.90	6	3.68
Tools/Equipment Donation	8	4.40	8	4.93	6	3.63	9	4.32
Laboratory Assistance	9	4.67	9	5.67	8	4.40	8	4.08
Tools/Equipment Rental	10	5.65	10	6.50	9	4.75	10	5.43

Note. Means were calculated based on the ranks selected by the participants on how frequently the SAE support roles occurred in the program, with 1 = Most Frequent, 2 = Second Most Frequent, and so on until all roles were ranked.

Objective 3: Communication Strategies Used by Agricultural Education Teachers to Contact Stakeholders

Objective 3 of the study was to describe the communication strategies used to contact stakeholders. Several items were used to address Objective 3. The first item sought to describe the individual who most often initiated the contact between a new stakeholder and the agriculture program. Participants could only select one response from the list of five options. The results of this item are summarized in Table 4.20.

Table 4.20

Individual Who Most Often Initiates Contact between New Stakeholder and Agriculture Program

Individual	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Agriculture Teacher(s)	**139 (80.8)**	**63 (84.0)**	**23 (69.7)**	**53 (82.8)**
Existing Supporter	17 (9.9)	4 (5.4)	6 (18.2)	7 (10.9)
All Partnerships Were Already Established When I Was Hired	8 (4.7)	6 (8.0)	1 (3.0)	1 (1.6)
New Community Stakeholder	6 (3.4)	1 (1.3)	3 (9.1)	2 (3.1)
Other	2 (1.2)	1 (1.3)	-	1 (1.6)

Note. The most frequently selected individual for each group of respondents (Northwest, Idaho, Oregon, and Washington) is in boldface.

The participants that selected the "Other" category had the opportunity to share their thoughts. The participant from Washington described that the initial contact was a combination of people and not just one. The second "Other" response was from an Idaho agriculture teacher, who wrote that the FFA members are the ones who initiate the contact between a new stakeholder and the agriculture program.

Another aspect of Objective 3 was to describe the communication methods used by Northwest agriculture teachers to interact with supporters of the agricultural education program. Participants were able to select all the communication modes that they used to communicate with supporters. The frequencies of each communication mode are summarized in Table 4.21. The three, most frequently used communication modes by Northwest participants were face-to-face communication (*n* = 166, 96.5%), phone calls (*n* = 159, 92.4%), and emails (*n* = 155, 90.1%).

Table 4.21

Methods Used by Northwest Agriculture Teachers to Communicate with Agricultural Education Program Supporters

Communication Mode	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Face-to-Face Communication	**166 (96.5)**	**72 (96.0)**	**33 (100)**	**61 (95.3)**
Phone Call	**159 (92.4)**	**71 (94.7)**	**29 (87.9)**	**59 (92.2)**
Email	**155 (90.1)**	**67 (89.3)**	**33 (100)**	**55 (85.9)**
Mailed Letters	84 (48.8)	35 (46.7)	21 (63.6)	28 (43.8)
Text Messaging	81 (47.1)	35 (46.7)	19 (57.6)	27 (42.2)
Facebook	68 (39.5)	23 (30.7)	18 (54.5)	27 (42.2)
School/Program Website	58 (33.7)	18 (24)	14 (42.4)	26 (40.1)
Signs in the Community	52 (30.2)	22 (29.3)	15 (45.5)	15 (23.4)
Mailed Program Newsletter	26 (15.1)	9 (12.0)	7 (21.2)	10 (15.6)
Digital Program Newsletter	16 (9.3)	7 (9.3)	4 (12.1)	5 (7.8)
Twitter	5 (2.9)	1 (1.3)	2 (6.1)	2 (3.1)
Blogs	2 (1.2)	-	2 (6.1)	-
Other	7 (4.1)	2 (2.7)	3 (9.1)	2 (3.1)

Note. The most frequently selected communication modes for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

The participants who selected “Other” as an option had the opportunity to write in their responses. The participants who selected “Other” added additional methods of communication such as the newspaper (n = 3), radio (n = 1), the school reader board (n = 1), and an all-call using the school district phone system (n = 1).

A second item expanded on the communication methods used by Northwest agriculture teachers to include all stakeholders, not just supporters of the agriculture program. Participants had the opportunity to select all communication modes that applied to their situation. As summarized in Table 4.22, face-to-face communication (n = 125, 72.7%) was the most frequently selected mode used by Northwest agriculture teachers to communicate with stakeholders. Email (n = 113, 65.7%) and phone calls (n = 106, 61.6%) were the second and third most frequently used communication modes respectively.

An “Other” response was present to allow participants to add additional communication modes not listed as an option. Twelve participants added additional communication modes used to interact with stakeholders of the program. The additional communication modes included the local newspaper (n = 7), school newsletter (n = 1), the Agriculture Experience Tracker (AET) record book notification system (n = 1), Remind 101 updates (n = 1), and local meetings (n = 1).

Table 4.22

Methods Used by Northwest Agriculture Teachers to Communicate with Agricultural Education Program Stakeholders

Communication Mode	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Face-to-Face Communication	**125 (72.7)**	**60 (80.0)**	**21 (63.6)**	**44 (68.8)**
Email	**113 (65.7)**	**55 (73.3)**	**20 (60.6)**	**38 (59.4)**
Phone Call	**106 (61.6)**	**51 (68.0)**	**16 (48.5)**	**39 (60.9)**
Mailed Letters	68 (39.5)	36 (48.0)	13 (39.4)	19 (29.7)
School/Program Website	61 (35.5)	19 (25.3)	15 (45.5)	27 (42.2)
Facebook	60 (34.9)	21 (28.0)	17 (51.5)	22 (34.4)
Signs in the Community	51 (29.7)	16 (21.3)	16 (48.5)	19 (29.7)
Text Messaging	34 (19.8)	18 (24.0)	7 (21.2)	9 (14.1)
Mailed Program Newsletter	22 (12.8)	6 (8.0)	7 (21.2)	9 (14.1)
Digital Program Newsletter	17 (9.9)	9 (12.0)	3 (9.1)	5 (7.8)
Twitter	4 (2.3)	1 (1.3)	2 (6.1)	1 (1.6)
Blogs	2 (1.2)	-	2 (6.1)	-
Other	12 (7.0)	7 (9.3)	3 (9.1)	2 (3.1)

Note. The most frequently selected communication modes for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

The participants were asked about the methods used to inform their school administrators about the supporters of the agricultural education program. The results are outlined in Table 4.23. Respondents were able to select all methods that applied to their situation. Participants from Idaho (*n* = 74, 98.7%), Oregon (*n* = 31, 93.9%), Washington (*n*

= 58, 90.6%), and the overall Northwest (*n* = 163, 94.8%) selected the agriculture teacher as the most frequent way to inform administration about the supporters of the agricultural education program. Northwest participants also frequently selected the chapter banquet (*n* = 106, 61.6%) and communication with community supporters (*n* = 83, 48.3%) as common methods used to inform school administration about the supporters of the agriculture program.

Table 4.23

Methods Used by Northwest Agriculture Teachers to Inform Administration about Agricultural Education Supporters

Method	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Agriculture Teacher	**163 (94.8)**	**74 (98.7)**	**31 (93.9)**	**58 (90.6)**
Chapter Banquet	**106 (61.6)**	**50 (66.7)**	**25 (75.8)**	**31 (48.4)**
Communication with Community Supporters	**83 (48.3)**	**36 (48.0)**	**18 (54.5)**	**29 (45.3)**
They are unaware of our agricultural education supporters	19 (11.0)	2 (2.7)	5 (15.2)	12 (18.8)
Other	10 (5.8)	4 (5.3)	2 (6.1)	4 (6.3)

Note. The most frequently selected methods used to inform administration for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

The "Other" response allowed participants to add additional ways they informed their administration about the supporters of the agriculture program. The additional methods included a chapter of school newsletter (*n* = 3), FFA members (*n* = 1), and advisory board members (*n* = 1).

The final item used to address Objective 3 sought to describe the recognition methods used by Northwest agriculture teachers to recognize agricultural education

supporters. Participants were able to select all the modes of recognition used in their programs, as well as add additional modes not listed as choices. The results, as listed in Table 4.24, were that Northwest agricultural education supporters were most often formally recognized at a chapter banquet (*n* = 144, 83.7%), through a written letter (*n* = 119, 69.2%), or with plaques, banners, or certificates (*n* = 112, 65.1%). Participants who selected the "Other" option added additional modes of recognition. Thank you cards (*n* = 2), appreciation breakfasts (*n* = 2), a school newsletter (*n* = 1), chapter newsletter (*n* = 1), and a handshake (*n* = 1) were all used to recognize supporters of the agriculture program.

Table 4.24

Methods Used by Northwest Agriculture Teachers to Recognize Agricultural Education Program Supporters

Mode of Recognition	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Formal Recognition at Chapter Banquet	**144 (83.7)**	**61 (81.3)**	**32 (97.0)**	**51 (79.7)**
Written Letter	**119 (69.2)**	**56 (74.7)**	**25 (75.8)**	**38 (59.4)**
Plaques, Banners, or Certificates	**112 (65.1)**	**47 (62.7)**	**22 (66.7)**	**43 (67.2)**
Newspaper Article	77 (44.8)	36 (48.0)	16 (48.5)	25 (39.1)
Awards at the State Level	71 (41.3)	30 (40.0)	13 (39.4)	28 (43.8)
Phone Call	50 (29.1)	30 (40.0)	3 (9.1)	17 (26.6)
Email	41 (23.8)	18 (24.0)	8 (24.2)	15 (23.4)
Social Media	41 (23.8)	15 (20.0)	11 (33.3)	15 (23.4)
Awards at the National Level	15 (8.7)	7 (9.3)	3 (9.1)	5 (7.8)
Other	8 (4.7)	2 (2.7)	3 (9.1)	3 (4.7)

Note. The most frequently selected communication modes for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

A final, open-ended question allowed participants to add final thoughts regarding the communication methods used in their agriculture program. One participant added that a year in review publication was used to share the highlights of the program with supporters. Another participant wrote how he/she listed all the supporters of the program on the back of the FFA banquet invitation and program to showcase the program's appreciation. A third individual added how the FFA chapter printed the logos of all the program supporters on the back of the chapter t-shirt for that year.

Objective 4: Views of Teachers on Agricultural Education Program Supporters

Objective 4 was to describe the views of Northwest agriculture teachers toward agricultural education supporters in their programs. The first item used to address Objective 4 was a set of five semantic differential items. Five sets of disparate terms were placed at either end of a continuum. Participants had to select where their beliefs were best represented on the continuum. No identifiers were used on the radio buttons between the terms. Table 4.25 contains the frequencies of each radio button between the disparate terms.

For the Northwest participants (n = 172), the range for all five items was one to five. The median responses were also calculated. The median for each of the five items were as follows: "Volunteers for the Program – Partners with the Program" was four; "Burden – Asset" was five; "Useless – Essential" was five; "Difficult to Establish – Easy to Establish" was three, and; "Passive – Active" was four.

Table 4.25

Semantic Differential Responses to Describe the Views of Northwest Agriculture Teachers on Community Supporters (n = 172)

Left Continuum Term	1 *f (%)*	2 *f (%)*	3 *f (%)*	4 *f (%)*	5 *f (%)*	Right Continuum Term
Volunteers for the Program	8 (4.7)	16 (9.3)	38 (22.1)	**53 (30.8)**	**53 (30.8)**	Partners with the Program
Burden	1 (0.6)	5 (2.9)	15 (8.7)	57 (33.1)	**92 (53.5)**	Asset
Useless	1 (0.6)	5 (2.9)	20 (11.6)	56 (32.6)	**87 (50.6)**	Essential
Difficult to Establish	8 (4.7)	28 (16.3)	49 (28.5)	**59 (34.3)**	25 (14.5)	Easy to Establish
Passive	5 (2.9)	13 (7.6)	51 (29.7)	**61 (35.5)**	39 (22.7)	Active

Note. The most frequently selected responses for each item are in boldface.

Four constructs were used to additionally describe the views of Northwest agriculture teachers toward the supporters of their program. The first construct focused on describing the views of Northwest agriculture teachers on the classroom and laboratory supporters. The construct was operationalized with a summated rating scale, composed of seven items. Participants selected their level of agreement with each item on a scale of 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree. The means, as summarized in Table 4.26, were calculated for each item and used to calculate the overall mean for the classroom and laboratory construct.

Table 4.26

Views of Northwest Agriculture Teachers on Classroom and Laboratory Supporters

Item	Northwest (*n* = 170)	Idaho (*n* = 74)	Oregon (*n* = 32)	Washington (*n* = 64)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
Program supporters bring a valuable perspective to my classroom.	**4.81 (1.15)**	**4.74 (1.25)**	**4.61 (1.09)**	**4.98 (1.05)**
Partnerships with program supporters help build 21st century skills for students.	**4.73 (1.16)**	**4.64 (1.27)**	**4.64 (0.86)**	**4.88 (1.16)**
Involvement of program supporters adds relevance to the curriculum.	**4.67 (1.15)**	**4.69 (1.23)**	**4.36 (1.08)**	**4.81 (1.07)**
My classroom teaching uses the ideas given by active program supporters.	4.36 (1.08)	4.36 (1.14)	4.00 (1.20)	4.53 (0.89)
Program supporters add rigor to the class curriculum.	4.18 (1.25)	4.32 (1.24)	3.82 (1.36)	4.20 (1.20)
STEM concepts are reinforced by program supporters.	3.89 (1.35)	3.86 (1.26)	3.53 (1.39)	4.11 (1.39)
My classroom teaching would be the same without the involvement of program supporters.[b]	3.34 (1.44)	3.20 (1.47)	3.42 (1.39)	3.45 (1.43)
Total[a]	4.33 (1.00)	4.35 (1.10)	4.06 (0.96)	4.44 (0.88)

Note. Means were calculated based on a six point summated scale with the following identifiers; 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree. [a]Total construct mean represents the average of all construct items after reverse coding. [b]Item was reverse coded for the total construct analysis (6 = Strongly Disagree, 5 = Disagree, 4 = Slightly Disagree, 3 = Slightly Agree, 2 = Agree, and 1 = Strongly Agree).

The participants had an overall mean score of 4.33 (*SD* = 1.00) for the classroom and laboratory component. A mean of 4.33 falls between 4 = Slightly Agree and 5 = Agree. Within the construct, the three items with the highest means were as follows: "Program supporters bring a valuable perspective to my classroom" (*M* = 4.81, *SD* = 1.15); "Partnerships with program supporters help build 21st century skills for students" (*M* = 4.73, *SD* = 1.16); and "Involvement of program supporters adds relevance to my curriculum" (*M* = 4.67, *SD* = 1.15).

The means of participants (*n* = 170) on the views of classroom and laboratory instruction supporters were compared between states (Idaho, Oregon, and Washington) using a one-way ANOVA. No significant difference was found ($F(2, 167) = 1.537$, $p > .05$). The overall construct scores for the views of agriculture teachers toward classroom and laboratory supporters did not differ significantly between states. The mean score for Idaho participants was 4.35 (*SD* = 1.10). The mean score for Oregon participants was 4.06 (*SD* = 0.96). The mean score for Washington participants was 4.44 (*SD* = 0.88).

A one-way ANOVA was used to compare the mean scores on the views of the classroom and laboratory instruction supporters construct between the participants' definitions of "community". No significant difference was found ($F(3, 159) = 2.446$, $p > .05$). The construct means did not differ significantly between participants with different definitions of "community". The 77 participants who selected that their community was the size of the school district had a mean construct score of 4.15 (*SD* = 1.11). The 51 participants who selected that their community was the size of the FFA district had a mean construct score of 4.38 (*SD* = 0.88). The 22 participants who selected that their community was the size of the state had a mean construct score of 4.63 (0.64). The 13 participants who

selected that their community was the size of the nation had a mean construct score of 4.77 (0.99).

An independent-samples *t* test was calculated to compare the mean scores on views of agriculture teachers on the classroom and laboratory instruction supporters construct of participants who were NAAE members and those who were not members. A significant difference was found between the two groups ($t(166) = 2.051$, $p < .05$, $Eta^2 = .03$ small). NAAE members ($n = 138$) had a higher mean score ($m = 4.39$, $SD = 0.99$) than the 30 individuals who were not NAAE members ($m = 3.98$, $SD = 0.98$).

An independent-samples *t* test was calculated to compare the mean scores on views of agriculture teachers on the classroom and laboratory instruction supporters construct of participants who provided supporter training of some kind and those who did not provide any training. A significant difference was found between the two groups ($t(168) = -3.607$, $p < .05$, $Eta^2 = .07$ small). Participants that had some sort of training method in place ($n = 147$) had a higher mean score ($m = 4.43$, $SD = 0.92$) than the 23 individuals who did not have any training in place for supporters ($m = 3.65$, $SD = 1.24$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teachers on the classroom and laboratory supporters construct between males and females. No significant difference was found ($t(166) = -1.508$, $p > .05$). The mean construct score of female teachers ($m = 4.16$, $SD = 1.01$) was not significantly different from male teachers ($m = 4.40$, $SD = 0.99$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teachers on the classroom and laboratory supporters construct between traditionally and alternatively certified teachers. No significant difference was found ($t(166)$

= -0.474, $p > .05$). The mean construct score of traditionally certified teachers ($m = 4.31$, $SD = 1.00$) was not different from alternatively certified teachers ($m = 4.43$, $SD = 1.05$).

An independent-samples t test was calculated to compare the mean scores on the views of agriculture teacher on the classroom and laboratory supporters construct between the participants who live in their school district and those that do not. No significant difference was found ($t(166) = 1.225$, $p > .05$). The mean construct score of the teachers who lived in their district ($m = 4.39$, $SD = 1.07$) was not significantly different from teachers who did not live in their district ($m = 4.19$, $SD = 0.86$).

An independent-samples t test was calculated to compare the mean scores on the views of agriculture teacher on the classroom and laboratory supporters construct between the participants who grew up in the same school district they now teach in and those that did not. No significant difference was found ($t(166) = 0.695$, $p > .05$). The mean construct score of teachers who currently taught in the same school district they grew up in ($m = 4.45$, $SD = 1.03$) was not significantly different from those who did not ($m = 4.29$, $SD = 1.00$).

The second construct was the views of Northwest agriculture teachers on the FFA supporters of the agriculture program. The total construct score for the agriculture teacher views of FFA support was a mean of 4.37 ($SD = 0.87$), which falls between 4 = Slightly Agree and 5 = Agree. Table 4.27 contains a summary of the mean scores for each of the eight items that comprised the construct.

Table 4.27

Views of Northwest Agriculture Teachers on FFA Supporters

Item	Northwest (*n* = 163)	Idaho (*n* = 71)	Oregon (*n* = 32)	Washington (*n* = 60)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
Students learn soft skills from interacting with program supporters.	**4.65 (1.03)**	**4.68 (1.12)**	**4.63 (0.87)**	**4.64 (1.03)**
My program supporters make FFA more fun.	**4.58 (1.10)**	**4.65 (1.14)**	**4.44 (0.91)**	**4.56 (1.15)**
The FFA chapter is more active at leadership events because of the support from program supporters.	**4.48 (1.26)**	**4.61 (1.29)**	**4.50 (1.02)**	4.34 (1.33)
FFA members learn many leadership skills from their interactions with program supporters.	4.43 (1.16)	4.49 (1.28)	4.34 (0.94)	4.40 (1.14)
My program supporters help build connections between FFA members.	4.41 (1.13)	4.47 (1.28)	4.28 (1.02)	**4.41 (1.01)**
The success of my FFA chapter's CDEs would not be possible without involving program supporters.	4.09 (1.40)	4.14 (1.43)	4.25 (1.30)	3.95 (1.42)
CDEs are improved when coached by a program supporter.	4.01 (1.30)	4.20 (1.40)	3.97 (1.10)	3.82 (1.26)
Program supporters should not serve as CDE coaches.[b]	2.66 (1.35)	2.65 (1.41)	2.16 (1.02)	2.95 (1.37)
Total[a]	4.37 (0.87)	4.45 (0.97)	4.39 (0.66)	4.28 (0.84)

Note. Means were calculated based on a six point summated scale (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree).
[a]Total construct mean represents the average of all construct items after reverse coding.
[b]Item was reverse coded for the total construct analysis (6 = Strongly Disagree, 5 = Disagree, 4 = Slightly Disagree, 3 = Slightly Agree, 2 = Agree, and 1 = Strongly Agree).

The participants had the highest level of agreement with the items, "students learn soft skills from interacting with program supporters" ($M = 4.65$, $SD = 1.03$), "my program supporters make FFA more fun" ($M = 4.58$, $SD = 1.10$), and "the FFA chapter is more active at leadership events because of the support from program supporters" ($M = 4.48$, $SD = 1.26$).

The means of participants ($n = 163$) on the views of FFA supporters were compared between states (Idaho, Oregon, and Washington) using a one-way ANOVA. No significant difference was found ($F(2, 160) = 0.649$, $p > .05$). The overall construct score for the views of agriculture teachers toward FFA supporters did not differ significantly. The mean score for Idaho participants was 4.45 ($SD = 0.97$). The mean score for Oregon participants was 4.39 ($SD = 0.66$). The mean score for Washington participants was 4.28 ($SD = 0.84$).

A one-way ANOVA was used to compare the mean scores on the views of the FFA supporters construct between the participants' definitions of "community". A significant difference was found between "community" definitions ($F(3, 152) = 2.995$, $p < .05$, $Eta^2 = .06$ small). Fisher's LSD was used to determine the nature of the differences between the groups. This analysis revealed that the construct scores of 73 participants who defined "community" as the size of their school district was lower ($M = 4.18$, $SD = 0.90$) than the 50 participants who defined "community" as the size of their FFA district ($M = 4.54$, $SD = 0.77$), the 21 participants who defined "community" as the size of their state ($M = 4.60$, $SD = 0.78$), and the 12 participants who defined "community" as the size of the nation ($M = 4.72$, $SD = 1.03$). The mean construct scores between participants who viewed "community" as the size of their FFA district, the size of their state, and the size of the nation did not differ significantly between one another.

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teachers on the FFA supporters construct of participants who were NAAE members and those who were not members. A significant difference was found between the two groups ($t(159) = 2.142$, $p < .05$, $Eta^2 = .03$ small). NAAE members ($n = 137$) had a higher mean score ($m = 4.43$, $SD = 0.86$) than the 24 individuals who were not NAAE members ($m = 4.02$, $SD = 0.85$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teachers on the FFA supporters construct of participants who provided supporter training of some kind and those who did not provide any training. A significant difference was found between the two groups ($t(161) = -3.399$, $p < .05$, $Eta^2 = .07$). Participants that had some sort of training method in place ($n = 143$) had a higher mean score ($m = 4.46$, $SD = 0.80$) than the 20 individuals who did not have any training in place for supporters ($m = 3.77$, $SD = 1.08$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teachers on the FFA supporters construct between males and females. No significant difference was found ($t(159) = 0.017$, $p > .05$). The mean construct score of female teachers ($m = 4.37$, $SD = 0.84$) was not significantly different from male teachers ($m = 4.37$, $SD = 0.89$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teacher on the FFA supporters construct between traditionally and alternatively certified teachers. No significant difference was found ($t(159) = 0.06$, $p > .05$). The mean construct score of traditionally certified teachers ($m = 4.37$, $SD = 0.87$) was not significantly different from alternatively certified teachers ($m = 4.35$, $SD = 0.92$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teacher on the FFA supporters construct between the participants who lived in their school district and those that did not. No significant difference was found ($t(159) = 0.174$, $p > .05$). The mean construct score of the teachers who lived in their district ($m = 4.38$, $SD = 0.92$) was not significantly different from teachers who did not live in their district ($m = 4.35$, $SD = 0.79$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teacher on the FFA construct between the participants who grew up in the same school district they now teach in and those that do not. No significant difference was found ($t(159) = 0.225$, $p > .05$). The mean construct score of teachers who currently taught in the same school district they grew up in ($m = 4.41$, $SD = 0.98$) was not significantly different from those who did not ($m = 4.36$, $SD = 0.85$).

The third construct, views of agriculture teachers on SAEs was composed of six items. As summarized in Table 4.28, the SAE construct mean was 4.15 ($SD = 0.72$), which falls between 4 = Slightly Agree and 5 = Agree. Participants had the highest level of agreement with the following three statements: “SAEs are improved when community stakeholders are involved” ($M = 4.87$, $SD = 0.88$); “Program supporters open up more opportunities for innovative SAEs” ($M = 4.83$, $SD = 0.99$); and “Program supporters increase SAE participation” ($M = 4.43$, $SD = 1.01$).

Table 4.28

Views of Northwest Agriculture Teachers on Supervised Agricultural Experience (SAE) Supporters

Item	Northwest (*n* = 165)	Idaho (*n* = 72)	Oregon (*n* = 32)	Washington (*n* = 61)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
SAEs are improved when community stakeholders are involved.	**4.87 (0.88)**	**4.92 (0.94)**	**4.69 (1.06)**	**4.92 (0.68)**
Program supporters open up more opportunities for innovative SAEs.	**4.83 (0.99)**	**4.82 (1.10)**	**4.69 (1.00)**	**4.90 (0.86)**
Program supporters increase SAE participation.	**4.43 (1.01)**	**4.51 (1.12)**	**4.25 (0.92)**	**4.43 (0.92)**
Program supporters should help the agriculture teacher supervise student SAEs.	4.01 (1.18)	3.92 (1.28)	**4.25 (1.08)**	3.98 (1.12)
Program supporters do not understand SAEs well enough to support this component of the program.[b]	3.21 (1.23)	3.14 (1.18)	3.50 (1.14)	3.15 (1.33)
Program supporters help students complete SAE record books.	2.95 (1.23)	2.70 (1.15)	2.81 (1.23)	3.31 (1.25)
Total[a]	4.15 (0.72)	4.13 (0.76)	4.03 (0.75)	4.25 (0.64)

Note. Means were calculated based on a six point summated scale (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree).
[a]Total construct mean represents the average of all construct items after reverse coding.
[b]Item was reverse coded for the total construct analysis (6 = Strongly Disagree, 5 = Disagree, 4 = Slightly Disagree, 3 = Slightly Agree, 2 = Agree, and 1 = Strongly Agree).

The means of participants (n = 165) on the views of SAE supporters were compared between states (Idaho, Oregon, and Washington) using a one-way ANOVA. No significant difference was found ($F(2, 160) = 1.027$, $p > .05$). The overall construct score for the views of agriculture teachers toward SAE supporters did not differ significantly. The mean score for Idaho participants was 4.13 (SD = 0.76). The mean score for Oregon participants was 4.03 (SD = 0.75). The mean score for Washington participants was 4.25 (SD = 0.64).

A one-way ANOVA was used to compare the mean scores on the views of the SAE supporters construct between the participants' definitions of "community". No significant difference was found ($F(3, 155) = 1.417$, $p > .05$). The construct means did not differ significantly between participants with different definitions of "community". The 74 participants who selected that their community was the size of the school district had a mean construct score of 4.07 (SD = 0.68). The 51 participants who selected that their community was the size of the FFA district had a mean construct score of 4.20 (SD = 0.79). The 22 participants who selected that their community was the size of the state had a mean construct score of 4.36 (0.58). The 12 participants who selected that their community was the size of the nation had a mean construct score of 4.38 (0.70).

An independent-samples t test was calculated to compare the mean scores on the views of agriculture teachers on SAE supporters construct of participants who were NAAE members and those who were not members. No significant difference was found ($t(161) = 1.114$, $p > .05$). The mean SAE construct score for the 135 NAAE members (m = 4.18, SD = 0.75) was not different from the mean SAE construct score for the 28 individuals who were not NAAE members (m = 4.01, SD = 0.51).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teachers on SAE supporters construct of participants who provided supporter training of some kind and those who did not provide any training. A significant difference was found between the two groups ($t(163) = -2.268$, $p < .05$, $Eta^2 = .04$ small). Participants that had some sort of training method in place ($n = 142$) had a higher mean score ($m = 4.20$, $SD = 0.72$) than the 23 individuals who did not have any training in place for supporters ($m = 3.84$, $SD = 0.61$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teachers on the SAE supporters construct between males and females. No significant difference was found ($t(161) = -0.432$, $p > .05$). The mean construct score of female teachers ($m = 4.12$, $SD = 0.75$) was not significantly different from male teachers ($m = 4.17$, $SD = 0.71$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teacher on the SAE supporters construct between traditionally and alternatively certified teachers. No significant difference was found ($t(161) = 0.817$, $p > .05$). The mean construct score of traditionally certified teachers ($m = 4.16$, $SD = 0.71$) was not significantly different from alternatively certified teachers ($m = 3.99$, $SD = 0.80$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teacher on the SAE supporters construct between the participants who lived in their school district and those that did not. No significant difference was found ($t(161) = 0.202$, $p > .05$). The mean construct score of the teachers who lived in their district ($m = 4.16$, $SD = 0.74$) was not significantly different from teachers who did not live in their district ($m = 4.13$, $SD = 0.68$).

An independent-samples *t* test was calculated to compare the mean scores on the views of agriculture teacher on the SAE supporters construct between the participants who grew up in the same school district they now teach in and those that do not. No significant difference was found ($t(161) = -0.128$, $p > .05$). The mean construct score of teachers who currently taught in the same school district they grew up in ($m = 4.13$, $SD = 0.75$) was not significantly different from those who did not ($m = 4.15$, $SD = 0.71$).

The final construct was composed of 30 items to operationalize the views of Northwest agriculture teacher views toward the supporters of the total agriculture program. Since the complete program includes classroom and laboratory instruction, FFA, and SAE, the 21 items for those three components were combined with nine addition items specifically focused on the overall program to complete the 30-item construct. Listed in Table 4.29 are the means for the nine additional items and the overall total program, summated construct mean. The total program construct mean was 4.39 ($SD = 0.71$), which falls between 4 = Slightly Agree and 5 = Agree. Participants indicated the highest mean level of agreement with the item, "I value the program support offered to my program" ($M = 5.25$, $SD = 0.86$). The items, "I want more program supporters than what I have" ($M = 5.12$, $SD = 0.92$) and "my program is successful because it included community supporters" ($M = 4.84$, $SD = 1.08$) also had a high average level of agreement by the participants.

Table 4.29

Views of Northwest Agriculture Teachers on Overall Agriculture Program Supporters

Item	Northwest (*n* = 159)	Idaho (*n* = 70)	Oregon (*n* = 31)	Washington (*n* = 58)
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
I value the program support offered to my program.	**5.25 (0.86)**	**5.30 (0.79)**	**5.27 (0.72)**	**5.18 (1.01)**
I want more program supporters than what I have.	**5.12 (0.92)**	**5.01 (0.97)**	**5.27 (0.76)**	**5.18 (0.94)**
My program is successful because it includes community supporters.	**4.84 (1.08)**	**4.92 (1.11)**	4.61 (0.93)	**4.87 (1.12)**
Financial support from external supporters makes my program better.	4.82 (1.23)	4.81 (1.34)	**5.12 (0.86)**	4.66 (1.24)
My program supporters should be treated as partners because we both benefit from their involvement.	4.74 (0.98)	4.72 (1.12)	4.76 (0.75)	4.77 (0.92)
I am constantly building new partnerships with community stakeholders.	4.42 (1.06)	4.50 (1.16)	4.33 (0.92)	4.37 (1.00)
I would not be able to operate my program without the resources agricultural education program supporters offer.	4.20 (1.25)	4.23 (1.31)	4.42 (1.03)	4.03 (1.27)
Using program supporters helps lighten a teacher's workload.	4.19 (1.25)	4.31 (1.16)	4.43 (1.14)	3.92 (1.38)
It is easier to complete the task myself rather than having the help of a stakeholder.[b]	3.61 (1.18)	3.64 (1.15)	3.45 (1.25)	3.66 (1.17)
Total[a]	4.39 (0.71)	4.40 (0.84)	4.33 (0.59)	4.40 (0.61)

Note. Means were calculated based on a six point summated scale (1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, and 6 = Strongly Agree). [a]Total construct score was a composition of 30 construct items (7 classroom and laboratory, 8 FFA, 6 SAE, and 9 overall program items). [b]Item was reverse coded for the total construct analysis (6 = Strongly Disagree, 5 = Disagree, 4 = Slightly Disagree, 3 = Slightly Agree, 2 = Agree, and 1 = Strongly Agree).

The means of participants (n = 159) on the views of overall agriculture program supporters were compared between states (Idaho, Oregon, and Washington) using a one-way ANOVA. No significant difference was found ($F(2, 156) = 0.121$, $p > .05$). The overall construct score for the views of agriculture teachers toward overall agriculture program supporters did not differ significantly. The mean score for Idaho participants was 4.40 (SD = 0.84). The mean score for Oregon participants was 4.33 (SD = 0.59). The mean score for Washington participants was 4.40 (SD = 0.61).

A one-way ANOVA was used to compare the mean scores on the views of the overall agriculture program supporters construct between the participants' definitions of "community". A significant difference was found between "community" definitions ($F(3, 150) = 3.855$, $p < .05$, $Eta^2 = .07$ small). Fisher's LSD was used to determine the nature of the differences between the groups. This analysis revealed that the construct scores of 72 participants who defined "community" as the size of their school district was lower (M = 4.20, SD = 0.72) than the 49 participants who defined "community" as the size of their FFA district (M = 4.50, SD = 0.70), the 21 participants who defined "community" as the size of their state (M = 4.62, SD = 0.51), and the 12 participants who defined "community" as the size of the nation (M = 4.73, SD = 0.78). The mean construct scores between participants who viewed "community" as the size of their FFA district, the size of their state, and the size of the nation did not differ significantly between one another.

An independent-samples t test was calculated to compare the mean scores on views of agriculture teachers on the total agriculture program supporters construct of participants who were NAAE members and those who were not members. A significant difference was found between the two groups ($t(155) = 2.358$, $p < .05$, $Eta^2 = .03$ small). NAAE members

(n = 133) had a higher mean score (m = 4.44, SD = 0.71) than the 24 individuals who were not NAAE members (m = 4.07, SD = 0.67).

An independent-samples t test was calculated to compare the mean scores on the views of agriculture teachers on the total agriculture program supporters construct of participants who provided supporter training of some kind and those who did not provide any training. A significant difference was found between the two groups ($t(157) = -3.754$, $p < .05$, $Eta^2 = .08$ small). Participants that had some sort of training method in place (n = 139) had a higher mean score (m = 4.46, SD = 0.68) than the 20 individuals who did not have any training in place for supporters (m = 3.85, SD = 0.75).

An independent-samples t test was calculated to compare the mean scores on the views of agriculture teachers on the total agriculture program supporters construct between males and females. No significant difference was found ($t(155) = -0.793$, $p > .05$). The mean construct score of female teachers (m = 4.32, SD = 0.64) was not significantly different from male teachers (m = 4.41, SD = 0.75).

An independent-samples t test was calculated to compare the mean scores on the views of agriculture teacher on the total program supporters construct between traditionally and alternatively certified teachers. No significant difference was found ($t(155) = -0.622$, $p > .05$). The mean construct score of traditionally certified teachers (m = 4.37, SD = 0.73) was not significantly different from alternatively certified teachers (m = 4.51, SD = 0.54).

An independent-samples t test was calculated to compare the mean scores on the views of agriculture teacher on the total agriculture program supporters construct between the participants who lived in their school district and those that did not. No significant difference was found ($t(155) = 0.481$, $p > .05$). The mean construct score of the teachers

who lived in their district (m = 4.40, SD = 0.75) was not significantly different from teachers who did not live in their district (m = 4.34, SD = 0.63).

An independent-samples t test was calculated to compare the mean scores on the views of agriculture teacher on the total agriculture program supporters construct between the participants who grew up in the same school district they now teach in and those that do not. No significant difference was found ($t(155) = 0.348$, $p > .05$). The mean construct score of teachers who currently taught in the same school district they grew up in (m = 4.43, SD = 0.88) was not significantly different from those who did not (m = 4.37, SD = 0.68).

A final Likert-type item, ranging from 1 – Strongly Disagree to 6 – Strongly Agree, was used to address Objective 4. The item sought to describe the views of teachers on professional development regarding community support. The item stated the following: "Professional development should be offered on building community-agriculture program partnerships." The median response by 168 participants was 5 – Agree, with the responses ranging from 2 – Disagree to 6 – Strongly Agree.

Objective 5: Teachers' Definitions of "Community"

Objective 5 of the study was to describe the participants' definition of their community. The respondents could only select one answer that best represented their definition of "community". As summarized in Table 4.30, the most frequently selected choice for the size of the community was, "it's about the size of my school district" (n = 78, 47.3%).

Participants had the opportunity to add additional thoughts on their ideas of "community". One participant added that his/her community was the size of the agriculture program. Two participants added comments to the other end of the spectrum, describing

how agriculture teachers in each state and nationwide act like a community of their own and that communication makes nationwide collaboration easier. Other participants added their personal thoughts and elaborated on their answers. One individual wrote, "limiting yourself to only the school district could mean missing out on some incredible resources." Another participant added that, "whoever takes an active role to help the program succeed" would be a better definition of "community" rather than a geographic area.

Table 4.30

Northwest Agriculture Teachers' Definitions of "Community"

Community Sizes	Northwest (*n* = 165)	Idaho (*n* = 72)	Oregon (*n* = 33)	Washington (*n* = 60)
	f (%)	*f (%)*	*f (%)*	*f (%)*
It's about the size of my school district	**78 (47.3)**	**35 (48.6)**	12 (36.4)	**31 (51.7)**
It's about the size of my FFA district	52 (31.5)	20 (27.8)	**17 (51.5)**	15 (25.0)
It's my state	22 (13.3)	9 (12.5)	1 (3.0)	12 (20.0)
It's the entire nation	13 (7.9)	8 (11.1)	3 (9.1)	2 (3.3)

Note. The most frequently selected community size for each group of respondents (Northwest, Idaho, Oregon, and Washington) is in boldface.

Objective 6: Barriers to Including Agricultural Education Supporters

Objective 6 was to describe the barriers that prevented additional agriculture program supporter inclusion. Two items were used to address Objective 6. The first nominal item attempted to identify the barriers that prevented additional supporters from becoming a part of the agriculture program. The participants could select all the barriers applicable to their situation. As summarized in Table 4.31, "lack of time" (*n* = 148, 86.0%) was the number one most frequently selected barrier for supporters to become involved with

Northwest agriculture programs. Eighty-three participants (48.3%) also selected, "supporters do not know what assistance my program needs" as the second most prominent barrier. "A lack of agricultural education understanding" was the third most frequently selected barrier (n = 66, 38.4%) preventing additional supporters from being included in the agriculture program.

Table 4.31

Barriers Preventing Additional Supporters from Being Included in the Agriculture Program

Individual	Northwest (n = 172)	Idaho (n = 75)	Oregon (n = 33)	Washington (n = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Lack of time	**148 (86.0)**	**62 (82.7)**	**32 (97.0)**	**54 (84.4)**
Supporters do not know what assistance my program needs	**83 (48.3)**	**36 (48.0)**	**23 (69.7)**	**24 (37.5)**
Lack of understanding of agricultural education	**66 (38.4)**	**28 (37.3)**	**17 (51.5)**	**21 (32.8)**
Lack of additional money to support the program	63 (36.6)	**28 (37.3)**	14 (42.4)	**21 (32.8)**
Lack of interest in the help that's needed	46 (26.7)	18 (24.0)	13 (39.4)	15 (23.4)
School policies on volunteer help	24 (14.0)	3 (4.0)	5 (15.2)	16 (25.0)
Strict security/clearances required by the school	22 (12.8)	5 (6.7)	5 (15.2)	12 (18.8)
Other	10 (5.8)	5 (6.7)	1 (3.0)	4 (6.3)

Note. The three most frequently selected barriers for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

A second item prompted the participants to select all the barriers preventing them, as the agriculture teacher, from including additional program supporters. The frequencies of each barrier are listed in Table 4.32. The agriculture teachers in the Northwest who

responded to the questionnaire indicated that, “the time it takes to work with supporters” was a top barrier (*n* = 105, 61.0%), followed by a lack of awareness of potential supporters/resources in the community (*n* = 63, 36.6%) and a concern that the community stakeholder will overstep their boundary (*n* = 51, 29.7%).

Table 4.32

Barriers Preventing the Agriculture Teacher from Including Additional Agricultural Education Supporters

Individual	Northwest (*n* = 172)	Idaho (*n* = 75)	Oregon (*n* = 33)	Washington (*n* = 64)
	f (%)	*f (%)*	*f (%)*	*f (%)*
The time it takes to work with supporters	**105 (61.0)**	**41 (54.7)**	**26 (78.8)**	**38 (59.4)**
Unaware of potential supporters/resources in the community	**63 (36.6)**	**30 (40.0)**	**12 (36.4)**	**21 (32.8)**
Concerned that community stakeholders will overstep their boundaries and run the program	**51 (29.7)**	**26 (34.7)**	**12 (36.4)**	**13 (20.3)**
Reluctance to allow stakeholders to assume responsibility in my program	41 (23.8)	21 (28.0)	8 (24.2)	12 (18.8)
Afraid supporters will view me as stupid if I do not know EVERYTHING about agriculture	33 (19.2)	10 (13.3)	12 (36.4)	11 (17.2)
Uncomfortable with initiating contact with stakeholders	28 (16.3)	9 (12.0)	6 (18.2)	13 (20.3)
School district paperwork required to include stakeholders	18 (10.5)	5 (6.7)	2 (6.1)	11 (17.2)
Other	17 (9.9)	6 (8.0)	3 (9.1)	8 (12.5)

Note. The three most frequently selected barriers for each group of respondents (Northwest, Idaho, Oregon, and Washington) are in boldface.

Participants who selected "Other" for either of the items were especially encouraged to add details in an open-ended format. All participants, however, had the opportunity to add additional barriers if they so desired. Time surfaced as a major concern of many participants that responded to the open-ended item. Three participants also listed communication as a major barrier preventing further collaboration. Additional barriers such as language differences, financial issues, and living in a small community with limited resources were also identified. One participant noted too, that, "finding people that are awesome at what they do and are kid friendly can be touchy."

Objective 7: Describing the Relationships between Teacher and Program Demographics and Views of Teachers on Agricultural Education Program Supporters

Objective 7 was to describe the relationships that existed between the teacher demographics, program demographics, and the four constructs regarding the views of agriculture teachers toward classroom and laboratory instruction, FFA, SAE, and total agriculture program supporters. Pearson correlations were conducted to identify the relationships between the four constructs regarding the teachers' views of program supporters.

As summarized in Table 4.33, a very strong positive relationship was found between the total program construct and the classroom and laboratory construct (r (157) = .84, $p <$ .05, R^2 = .71 large), the FFA construct (r (157) = .90, $p < .05$, R^2 = .80 large), and the SAE construct (r (157) = .74, $p < .05$, R^2 = .54 large). All three indicated a significant linear relationship with the total program construct. The teachers' views on total agriculture program supporters increased as the views on the classroom and laboratory, FFA, and SAE constructs increased.

Table 4.33

Pearson Correlations between Views of Northwest Agriculture Teachers Toward Agriculture Program Supporters Constructs

	Classroom and Laboratory Construct	FFA Construct	SAE Construct	Total Program Construct
Classroom and Laboratory Construct	1.0	**.66* (.43)**	**.50* (.25)**	**.84* (.71)**
FFA Construct	-	1.0	**.59* (.35)**	**.90* (.80)**
SAE Construct	-	-	1.0	**.74* (.54)**
Total Program Construct	-	-	-	1.0

Note. * indicates a significant result ($p < .05$).

The relationships between each of the component constructs were also analyzed. A substantial positive relationship was found between the classroom and laboratory construct and the FFA construct (r (161) = .66, $p < .05$, $R^2 = .43$ large) and the SAE construct (r (162) = .50, $p < .05$, $R^2 = .25$ large), indicating a significant relationship between the variables. As the views of teachers increased on the classroom and laboratory construct, they increased on both the FFA and the SAE constructs as well. A substantial positive relationship was also found (r (158) = .59, $p < .05$, $R^2 = .35$ large) between the FFA and SAE constructs, indicating a significant relationship between the two variables. As the views of teachers increased on the FFA construct, they increased on the SAE construct as well.

Pearson correlation coefficients were calculated between the demographics and construct scores. The relationships between demographic variables and the four construct scores are summarized in Table 4.34. A negligible or low association was found between all

four of the teacher views constructs and the number of extended contract days, none of which were significant. A negligible or low association was also found between all four of the teacher views constructs and the percentage of partnerships established when the teacher began teaching at his or her current program, none of which were significant.

Table 4.34

Pearson Correlations between Demographic Characteristics and Views of Northwest Agriculture Teachers toward Agriculture Program Supporters Constructs

	Classroom and Laboratory Construct	FFA Construct	SAE Construct	Total Program Construct
Extended Contract Days	.09	.06	.06	.08
Number of Ag. Teachers	**.17* (.03)**	**.23* (.05)**	.15	**.18* (.03)**
Student Enrollment (Unduplicated Ag. Students)	.13	**.20* (.04)**	.10	.15
Student Enrollment (FFA Membership)	.11	**.16* (.03)**	.08	.10
Student Enrollment (Total in High School)	.11	**.20* (.04)**	.07	.15
Student Enrollment (Total in District)	**.21* (.04)**	**.23* (.05)**	**.17* (.03)**	**.21* (.04)**
Years of Teaching Ag. (Total)	**.25* (.06)**	.09	-.03	.08
Years of Teaching Ag. (Current Program)	**.24* (.06)**	.07	-.01	.06
Percentage of Established Partnerships	-.11	-.02	.13	-.06

Note. * indicates a significant result ($p < .05$).

A low positive relationship was found between the number of agriculture teachers at the school and the classroom and laboratory construct (r (164) = .17, $p < .05$, R^2 = .03 small), the FFA construct (r (157) = .23, $p < .05$, R^2 = .05 small), and the total program construct (r (153) = .18, $p < .05$, R^2 = .03 small), indicating significant linear relationships between the variables. As the number of agriculture teachers increased, the scores of the classroom and laboratory, FFA and total program constructs increased. The relationship between the number of agriculture teachers and the SAE construct was low but not significant.

A low positive relationship was found between the unduplicated agriculture student enrollment and the FFA construct (r (158) = .20, $p < .05$, R^2 = .04 small), indicating a significant linear relationship between the variables. As the number of unduplicated agriculture students increased, the views of agriculture teachers toward FFA supporters increased. The remaining negligible or low relationships between the total number of unduplicated agriculture students and the classroom and laboratory, SAE, and total program constructs were not significant.

A low positive relationship was found between the total FFA enrollment and the FFA construct (r (159) = .16, $p < .05$, R^2 = .03 small), indicating a significant linear relationship between the variables. As FFA membership increased, the views of agriculture teachers toward FFA supporters increased. The remaining negligible or low relationships between the total number of FFA members and the classroom and laboratory, SAE, and total program constructs were not significant.

A low positive relationship was found between the total high school enrollment and the FFA construct (r (159) = .20, $p < .05$, R^2 = .04 small), indicating a significant linear

relationship between the variables. As the total high school enrollment increased, the views of agriculture teachers toward FFA supporters increased. The remaining negligible or low relationships between the total number of students in the high school and the classroom and laboratory, SAE, and total program constructs were not significant.

A low positive relationship was found between the total school district enrollment and all four of the constructs: classroom and laboratory (r (151) = .21, $p < .05$, $R^2 = .04$ small), the FFA construct (r (145) = .23, $p < .05$, $R^2 = .05$ small), the SAE construct (r (146) = .17, $p < .05$, $R^2 = .03$ small), and the total program construct (r (142) = .21, $p < .05$, $R^2 = .04$ small). This indicated a significant linear relationship between the variables. As the total school district enrollment increased, the views of agriculture teachers toward classroom and laboratory, FFA, SAE, and total program supporters increased.

A low positive relationship was found between the total years of agriculture teaching experience and the classroom construct (r (166) = .25, $p < .05$, $R^2 = .06$ small), indicating a significant linear relationship between the variables. As the total years of teaching experience increased, the views of agriculture teachers toward classroom and laboratory supporters increased. The remaining negligible relationships between the total number of students in the high school and the classroom and laboratory, SAE, and total program constructs were not significant.

A low positive relationship was found between the years of agriculture teaching experience at the current program and the classroom construct (r (166) = .24, $p < .05$, $R^2 = .06$ small), indicating a significant linear relationship between the variables. As the years of teaching experience at the current program increased, the views of agriculture teachers toward classroom and laboratory supporters increased. The remaining negligible

relationships between the total number of students in the high school and the classroom and laboratory, SAE, and total program constructs were not significant.

A Spearman *rho* correlation was calculated to determine the relationship between the views of teachers on supporters of the classroom and laboratory, FFA, SAE, and the total program and the participants' beliefs toward professional development on community-agriculture program partnerships and definition of "community". As summarized in Table 4.35, a low positive relationship was found between the teachers' views on professional develop and two additional constructs: the classroom and laboratory construct (*rho* (165) = .25, $p < .05$, $R^2 = .06$ small), and the SAE construct (*rho* (161) = .20, $p < .05$, $R^2 = .04$ small). Both correlations suggested a significant relationship between the variables. As the views of teachers increased based on the classroom and laboratory and SAE constructs, the teachers tended to agree with the idea of more professional development.

Table 4.35

Spearman rho Correlations between Professional Development Beliefs and Views of Northwest Agriculture Teachers toward Agriculture Program Supporters Constructs

	Classroom and Laboratory Construct	FFA Construct	SAE Construct	Total Program Construct
Teacher's Definition of Community	**.17*** **(.03)**	**.22*** **(.05)**	**.19*** **(.03)**	**.27*** **(.07)**
Professional development should be offered on building community-agriculture program partnerships	**.25*** **(.06)**	**.31*** **(.10)**	**.20*** **(.04)**	**.35*** **(.12)**

Note. * indicates a significant result ($p < .05$).

A moderate positive relationship was found between the teachers' views on professional develop and the FFA construct (*rho* (159) = .31, $p < .05$, $R^2 = .10$ moderate) and the total program construct (*rho* (157) = .35, $p < .05$, $R^2 = .12$ moderate), indicating a significant relationship between the variables. As the views of teachers increased based on the FFA and total program supporters constructs, the teachers tended to agree with the idea of more professional development.

A low positive relationship was found between a teacher's definition of "community" and each of the following constructs regarding the views of agriculture teachers toward program supporters: classroom and laboratory instruction (*rho* (161) = .17, $p < .05$, $R^2 = .03$ small); FFA (*rho* (154) = .22, $p < .05$, $R^2 = .05$ small), SAE (*rho* (157) = .19, $p < .05$, $R^2 = .03$ small); and the total program (*rho* (152) = .27, $p < .05$, $R^2 = .07$ small). As an agriculture teacher's definition of "community" expanded (1 = It's the size of my school district; 2 = It's the size of my FFA district; 3 = It's my state; and 4 = It's the entire nation), teachers agreed more with the supporters for the classroom and laboratory, FFA, SAE, and total program constructs.

Point-biserial correlations were calculated between dichotomous nominal demographic items and the four constructs on teacher views of agriculture program supporters. Table 4.36 contains the point-biserial correlation calculations for the variables of interest. Negligible and low, non-significant correlations were found between the four constructs and sex, whether or not the participants were members of their state agriculture teachers association, whether or not the participant grew up in the district they taught, whether or not the participants lived in the school district they teach in, and their certification method.

Table 4.36

Point-Biserial Correlations between Demographics and Views of Northwest Agriculture Teachers toward Agriculture Program Supporters

	Classroom and Laboratory Construct	FFA Construct	SAE Construct	Total Program Construct
Sex (1 = Female; 2 = Male)	.12	-.001	.03	.06
NAAE Membership (1 = Yes; 2 = No)	**-.16* (.02)**	**-.17* (.03)**	-.087	**-.19* (.03)**
State Members (1 = Yes; 2 = No)	-.05	-.13	-.05	-.11
Did you grow up in district you now teach? (1 = Yes; 2 = No)	-.05	-.02	0.10	-.03
Do you currently live in district? (1 = Yes; 2 = No)	-.10	-.01	-.02	-.04
Do supporters receive training? (1 = Yes; 2 = No)	**-.27* (.07)**	**-.26* (.07)**	**-.18* (.03)**	**-.29* (.08)**
Certification (1 = Tradition; 2 = Alternative)	.04	-.01	-.06	.05

Note. * indicates a significant result ($p < .05$).

A low negative relationship was found between NAAE membership and the classroom and laboratory construct (r_{pb} (166) = .16, $p < .05$, $R^2 = .02$ small), the FFA construct (r_{pb} (159) = .17, $p < .05$, $R^2 = .03$ small), and the total program construct (r_{pb} (155) = .19, $p < .05$, $R^2 = .03$ small), indicating a significant linear relationship between the variables. A negligible negative relationship was found between NAAE membership and the SAE construct.

A low negative relationship was found between whether or not training was provided to supporters and all four of the constructs (the classroom and laboratory construct (r_{pb} (168) = .27, $p < .05$, $R^2 = .07$ small); the FFA construct (r_{pb} (161) = .26, $p < .05$, $R^2 = .07$ small), the SAE construct (r_{pb} (163) = .18, $p < .05$, $R^2 = .03$ small), and the total program construct (r_{pb} (157) = .99, $p < .05$, $R^2 = .08$ small), indicating a significant linear relationship between the variables. Participants who provided training for supporters tended to have an increase in the constructs scores for all four areas.

A final point-biserial correlation coefficient was calculated for the relationship between whether or training was provided for supporters and the teacher demographics. As summarized in Table 4.37, a low negative relationship was found between whether or not training was offered and NAAE membership (r_{pb} (168) = -.17, $p < .05$, $R^2 = .03$ small) and the percentage of established partnerships when the participant started teaching at his or her current program (r_{pb} (151) = -.23, $p < .05$, $R^2 = .05$ small), indicating a significant linear relationship. A low positive relationship was also found between whether or not training was offered and sex (r_{pb} (168) = .15, $p < .02$, $R^2 = .07$ small), years of teaching agriculture at the participant's current program (r_{pb} (168) = .16, $p < .05$, $R^2 = .03$ small), and total years of teaching agriculture (r_{pb} (168) = .21, $p < .05$, $R^2 = .04$ small), indicating a significant linear relationship between the variables.

The remaining point-biserial relationships found between whether or training was offered and the number of student enrollment (unduplicated agriculture students, FFA, high school, and school district), number of agriculture teachers, certification method, whether or not the participants were members of their state agriculture teachers association, whether or

not the participant grew up in the district they taught, whether or not the participants live in the school district they teach in, and their extended contract days were negligible and low.

Table 4.37

Point-Biserial Correlations between Training and Demographics of Northwest Agriculture Teachers

	Sex	NAAE Membership	Years of Teaching Ag. (Current Program)	Years of Teaching Ag. (Total)	Percentage of Established Partnerships
Do supporters receive training? (1 = Yes; 2 = No)	.15* (.02)	-.17* (.03)	.16* (.03)	.21* (.04)	-.23* (.05)

Note. * indicates a significant result ($p < .05$).

Objective 8: Predictors of Teacher Views on Agricultural Education Program Supporters

A multiple linear regression was calculated to predict the participants' views of total agriculture program supporters as measured by the 30-item construct based on teacher and school demographics. The following factors were included in the model: sex, student enrollment (school district, high school, agriculture program, and FFA), years of teaching experience (total and at current program), number of agriculture teachers at the school, whether or not the participant lived in the school district, whether or not the participant grew up in the district they currently taught, extended contract days, teacher certification method, NAAE membership, state agriculture teacher association membership, and participants' definitions of "community."

A significant regression equation was found ($F(2,137) = 7.705$, $p < .05$), with an R^2 of .101. Participants' predicted views of total agriculture program supporters was equal to

3.366 + .198(definition of "community") + .366(NAAE membership), where definition of "community" is coded as, 1 = "It's about the size of my school district"; 2 = "It's about the size of my FFA district"; 3 = "It's my state"; 4 = "It's the entire nation" and NAAE membership is coded 1 = No and 2 = Yes. Participants increased on the views of total agriculture program supporters construct by .198 as they increased the scope of their community to include more individuals and increased .366 if they were NAAE members.

Chapter 5:

Conclusions, Discussion, and Recommendations

The following chapter will outline the conclusions and discussion for each objective. Recommendations for future research, teacher education programs, and practicing agriculture teachers will also be provided.

Purpose and Objectives

The purpose of this research study was to describe the supporters of school-based agricultural education programs in the Northwest (Idaho, Oregon, and Washington). The following objectives guided the study:

1. Describe the agricultural education program supporters.
2. Describe the roles of agricultural education program supporters.
3. Describe the communication strategies used by agricultural education teachers to contact stakeholders.
4. Describe the views of teachers on agricultural education program supporters.
5. Describe how teachers define “community.”
6. Identify barriers to including agricultural education program supporters.
7. Describe the relationships between the teacher and agriculture program demographics and the views of teachers on agricultural education program supporters.
8. Identify characteristics of the teacher and program that are significant predictors of the views of teachers toward the total agricultural education program supporters.

Conclusions and Discussion for Objective 1: Description of the Agricultural Education Program Supporters

Objective 1 was to describe the agricultural education program supporters. The supporters were categorized into three groups: community-based, business and industry, and government-affiliated entities. The top three community-based entities as selected by the Northwest participants were parents/families of current students, advisory councils, and school personnel. This is consistent with prior research, which also suggested that these three entities are common in agricultural education (Foster et al., 2012; Masser et al., 2013; Phipps et al., 2008). In contrast, the participants selected volunteer, fraternal, and religious organizations least frequently. Albrecht and Hinckley (2012) suggested that faith-based organizations are often overlooked when building partnerships, which could be the case in the Northwest.

When asked to rank the support groups on their level of influence, participants ranked advisory councils as most influential, FFA Alumni as second most influential, and parents/families of current students as third most influential. Again, research by Foster et al., (2012), Masser et al. (2013), and Phipps et al. (2008) support these findings by citing how influential these groups can be in agricultural education programs.

According to Epstein's (2011) Overlapping Spheres of Influence of Family, School, and Community on Children's Learning, the optimum area for student learning to occur is when there is inclusion from all three spheres. The conclusions from Objective 1 suggest that agricultural education may already be using a model similar to that of Epstein. The most frequently selected supporters from the community were the parents/families of students, the

advisory council, and school personnel. Based on the model, these entities would represent the home, community, and school spheres, respectively.

Another interesting conclusion was that FFA Alumni groups were only selected by 89 (51.7%) of the Northwest participants, suggesting that this entity provided support to the agriculture program. In Oregon though, over 75% of the participants had an FFA Alumni in place, which was a much greater proportion than either Idaho or Washington. This finding suggests that there is an additional factor in Oregon that is contributing to more chapters utilizing an FFA Alumni.

On the follow-up item that allowed participants to indicate the level of influence each group had on the program, the Northwest participants selected FFA Alumni as the second most influential community support group. The disparity between frequency of use and influence suggests that those individuals who have an FFA Alumni feel that their support is beneficial in the agricultural program. With only slightly more than half of the Northwest participants using an FFA Alumni, many programs are not reaping the benefits this group can offer.

Business and industry supporters were the second category described in Objective 1. The most frequently selected business and industry supporters were local agribusinesses, farmers/ranchers, and local business (non-agriculturally related). When ranked on their level of influence, local agribusinesses were ranked most influential, farmers/ranchers were second most influential, and agriculturally related professional organizations were third most influential. As suggested by Albrecht and Hinckley (2012), business and industry partnerships are the most logical in Career and Technical Education (CTE), supporting this finding.

It is interesting to the researcher that many of the frequently occurring supporters are related to traditional production agriculture, while the least frequently occurring supporters related to natural resources. This conclusion could be related to the curriculum that is taught in the Northwest. While natural resources curriculum could fit in all agriculture programs, forestry, in contrast, would be relevant in the coastal regions and isolated areas of Idaho that have forestry industries present. Much of the Northwest is devoted to agriculture so perhaps agriculture programs are teaching curriculum that is based on the agriculture industries present in the area.

The final category of supporters was government-affiliated entities. The three most frequently selected entities were the cooperative extension service, university faculty/staff, and Natural Resource Conservation Service (NRCS). The participants also ranked those three entities as the three most influential government entities, respectively. Phipps et al. (2008) noted that cooperative extension agents can be key partners in the program, which coincides with the findings of Objective 1.

The conclusion that university faculty and staff were regarded as influential is promising for the Northwest. The university faculty and staff members are active in the agricultural education activities in the state such as FFA Career Development Events (CDEs), advisory groups, and curriculum support. The active involvement of university faculty and staff may not be typical nationwide, though. Several states no longer have an institution that certifies agriculture teachers. If a teacher did not graduate from a university, their ties and allegiance are not as close. The conclusion that Northwest teachers see university faculty and staff as influential in their agriculture programs is encouraging for colleges of agriculture and natural resources in the Northwest. Teachers value the input and

involvement of university faculty and staff and may be more likely to promote those institutions to their students, leading to increased enrollments in the colleges of agriculture and natural resources.

In all three categories, the results from state to state are relatively consistent in terms of which supporters are most influential in the program. This consistency could have positive implications for new teachers who are looking for recommendations on what groups to form partnerships with first. While a partnership with an community fraternal organization may be useful, perhaps the focus first should be on establishing strong parent support through an FFA Alumni and adding industry relevance through the use of an advisory council as suggested by the level of influence placed on these groups by the participants.

Part of Objective 1 was to describe the percentage of agriculture program-supporter relationships that were established before the teacher worked at their current school. An overall median of 31% was found for the percentage of partnerships established prior to the current agriculture teacher, suggests to the researcher that a change in the number of supporters occurred from the time the current teacher stated his or her position and the time at which the questionnaire was completed. One possibility is that the number of supporters more than tripled since the teacher's start at the program. Another possibility could be that previous supporters chose to no longer support the program and the current agriculture teacher had to create new and different partnerships.

Changes in the number and type of supporters could be due to many factors. The changes in agricultural industries in the community, the national economy, and the school administration all could be factors behind this fluctuation. The reputation of the agriculture

program could also affect the supporters of the program. A reputation of traditional, production agriculture program may attract a different support than a reputation of a science-based agriculture program. Additionally, supporter contact information may have been lost in the transition from the previous teacher to the current teacher.

Another possibility for a fluctuation in agriculture program supporters is the agriculture teacher. The personality and attributes of a teacher may have an effect on the type of the supporters that remain a part of the agriculture program to no longer support the agriculture program, or to choose to start supporting the agriculture program. Since the program-community partnerships are based on social interactions between people, there are many affective factors that could influence the partnerships such as introversion/extroversion, preferred communication styles, personality type, or other inherent factors.

The final aspect of Objective 1 was to describe the training methods used to prepare supporters to assist with the agriculture program. A large majority (n = 149, 86.6%) of the participants offered some form of training at least some of the time to their supporters. The training method that was most effective was an informal discussion with supporters (n = 125, 72.7%). The results of Tillinghast et al. (2013) were similar, with the researchers reporting that informal training sessions were provided most often. A written document (n = 62, 36%) and a formal training program (n = 42, 24.4%) both prepared by the agriculture teacher were the second most frequently selected methods of training in the current study.

The researcher is encouraged that supporters are provided with guidelines and details prior to engaging in the program. This upfront training may save teachers time in the future because they will not have to correct behaviors of supporters as they assist the

program. Trainings share the expectations and goals of the program, and if the expectations are set high, supporters will strive to meet those expectations, improving the entire program.

Conclusions and Discussion for Objective 2: Roles of Agricultural Education Program Supporters

Objective 2 was to describe the roles of agricultural education program supporters. The support roles were categorized into classroom and laboratory, FFA, and Supervised Agricultural Experience (SAE). Agricultural education researchers have previously concluded that supporters could be used for chaperones, guest speakers, judges, advocating for the program, and providing curriculum advice (Foster et al., 2012; Masser et al., 2013; Phipps et al., 2008).

The most frequently selected classroom and laboratory roles completed by Northwest agriculture program supporters were providing field trip opportunities, serving as guest speakers, and donating materials. Participants also ranked the support roles, based on how frequently each role occurred in the program. Supporters provided field trip opportunities most often, guest speakers occurred second most often, and program advocacy (verbal/nonverbal) occurred third most often. The responses varied between states on how often classroom and laboratory instruction roles occurred in the program. This may be because each program has unique needs that the community partners are assisting with in the program.

The most frequent roles are consistent with the literature. Using the expertise of the supporters is a valuable addition to the classroom. As stated by Mills and Whitney (2012), an extended network of supporters is important when building the 21st century skills of

students. When supporters are involved, advocating for the agriculture program also occurs. One area of discussion is that only one-third of the participants indicated that supporters were used for curriculum advice. Prior studies in Idaho suggested that advisory councils provided curriculum advice for the programs (Masser et al., 2013). While advisory councils were selected as a top community supporter of the program, the researcher questions whether or not agriculture teachers see the advisory council as a supporter or as a compliance item to meet funding regulations. If an advisory council does not provide curriculum advice for the remaining two-thirds of the participants, what is their role in the program?

In the FFA support category, participants most frequently selected that supporters assisted with fundraising, served as CDE judges, and provided scholarship opportunities. The roles that occurred most frequently to support the FFA were serving as CDE judges, fundraising, and assisting as FFA event chaperones. The least frequently selected roles were running chapter CDEs, membership recruitment, and assisting with awards and proficiency applications. Tillinghast et al. (2013) concluded similar results in their study on Oklahoma agriculture teachers. The teachers included in the study suggested that volunteers were very beneficial for fundraising, chaperoning, and judging. Similarly, Oklahoma agriculture teachers also cited membership recruitment and assisting with awards were roles that rarely occurred in the program (Tillinghast et al., 2013).

The final category gathered information on the supporters of the SAE component of the program. The top three, most frequently selected SAE support types were providing job placement opportunities, supporting as livestock buyers, and helping supervise SAEs. Job placement opportunities were also ranked as occurring most frequently in the program,

followed by supervision of SAEs and supporting as livestock buyers. Decker and Decker (2003) and Sanders (2001) concluded that supporters could be a great source of equipment donations to educational programs. The current study concluded otherwise, with tools and equipment donation/rental being listed as the lowest three roles provided by supporters.

The roles supporting the SAE component of the agriculture program are very traditional and appear to support job placements and raising livestock as common SAE opportunities. Agriscience SAEs, which would often not require the need for livestock buyers or a job placement, may not be supported by stakeholders as often or may not be occurring at all. Laboratory assistance was provided less than 20% of the time in all states. There may be an opportunity to expand student SAE programs to include more agriscience experiences, tapping into additional resources in the community.

For all of Objective 2, there is no way to know which group provided which support role. There could be support groups that offer many roles while some may only provide one role to support the program. There is support occurring for Northwest agriculture programs that is benefiting students, though, even if the exact source is not yet identified.

Conclusions and Discussion for Objective 3: Communication Strategies Used by Agricultural Education Teachers to Contact Stakeholders

Objective 3 was to describe the communication strategies used by agricultural education teachers to contact stakeholders. The first aspect of Objective 3 was to identify the individual who most often initiated the contact between new stakeholders and the agriculture program. The agriculture teacher(s) was the individual who most often initiated the contact between supporters, which is consistent with the recommendations by Talbert et al. (2009).

The remaining three options (existing supporters, all partnerships were already established, and new community stakeholder) all were selected by less than 20% collectively.

It is important that the agriculture teacher consider the time, talents, and resources of each entity that supports the program and encourages them to support an area of the program that fits that entity. The teacher is the most knowledgeable individual when it comes to knowing the support that is needed for a successful agriculture program. He or she needs to help channel support roles of stakeholders. While other individuals can initially establish new partnerships, it is ultimately the agriculture teacher who needs to start working with the supporter.

Participants then shared how they communicated with supporters and general stakeholders that do not necessarily provide support to the program. Face-to-face communication, phone calls, and email were the most frequently selected modes of communication used by agriculture teachers. Gossen (2011) concluded that FFA Alumni members preferred print media and emails most often. In contrast, blogs, Twitter, and digital newsletters were each used less than 10% of the participants as modes of communication.

It is important to discuss how the communication strategies affect the supporters of the program. The most frequently used methods of communication are very traditional. While these may be effective for one audience, they may be much less effective with another audience. A younger generation of supporters will most likely be on Facebook, Twitter, and reading blogs and websites; not reading mailed letters or answering the phone.

The results pose some concern that agriculture teachers are not using all the tools available to share the story of their school-based agricultural education program and gather

the support of those in the community. While direct modes of communication like face-to-face conversations and phone calls may be necessary for current supporters, the use of social media (Twitter, Facebook, and blogs) and digital media could reach a large group of individuals and solicited support for additional supporters. Using social media and other digital sources could also attract a different set of supporters that have not traditionally been a part of the agriculture program.

Teachers also need to identify their audience and who they want to gain as supporters. Communication methods vary depending on the group or entity that the agriculture teacher is working with at the time. Teachers may use one form of communication to gain support of local businesses that should be a part of the advisory council. Another form of communication may then be used to communicate with parents and general community members. An agriculture teacher needs to be knowledgeable about the communication methods at their disposal and be able to decipher which method is best for each supporter.

The agriculture teacher was the most frequently selected individual to inform the administration about the supporters of the agricultural education program. Only 19 (11%) selected that the administration does not know about the supporters of the program. The conclusion that most administrators are aware of the supporters in the agriculture program is encouraging. As Seevers and Rosencrans (2001) supported, it is good practice to keep the administration informed of the individuals who are involved in the agriculture program due to security concerns. Going beyond the security reasons stated by Seevers and Rosencrans though, the administration should be strong partners themselves. As outlined in Epstein's (2011) model, communication and partnership is essential between families, communities,

and the schools. Partnership is difficult when communication with the administration is poor.

Making the administration aware of the supporters is also a great way to advocate for the program. It no longer becomes the agriculture teacher as the sole individual leading the agriculture program. It now becomes the community standing behind what is done in the agriculture program, which adds stability and relevance to the agriculture program. The administration will be less likely to question trips to state FFA leadership conferences, field trips, and guest speakers in the classroom when they are aware of the support network backing the initiatives.

Formal recognition at the chapter banquet, written letter, and plaques, banners, and certificates were the three most frequently selected modes of recognition used by the agriculture teachers recognize program supporters. As agriculture teachers begin to build supporter partnerships, it is important to treat those individuals as partners. Each supporter will have a different reason for engaging with the agriculture program, and for those who get involved for the altruistic benefits, recognition is an important part to help them realize that their assistance is making a difference.

Conclusions and Discussion for Objective 4: Views of Teachers on Agricultural Education Program Supporters

Objective 4 was to describe the views of agriculture teachers on agricultural education program supporters. Tillinghast et al. (2013), Masser et al. (2013), and Seevers and Rosencrans (2001) all concluded that teachers perceived volunteers and stakeholders as valuable additions to the agriculture program. The researcher found that teachers viewed the agriculture program supporters as positive additions to the program and as more of an asset

to the program than a burden. The researcher also concluded that the participants viewed the supporters more as partners in the program than volunteers for the program.

The conclusion that teachers view supporters as partners and not as volunteers has positive implications for the profession. Framing the supporters as volunteers portrays that there is little exchange between the program and the supporter, which suggests a one-way street where the supporter gives to the agriculture program. In contrast, a partnership suggests a two-way street where both the supporter and agriculture program receive a benefit. While individuals may say they are not looking for anything in return, there is always a reason, which may be altruistic, that they want to support the program.

The agriculture teachers in the study described their views on the classroom and laboratory, FFA, SAE, and overall total program supporters. Views on the classroom and laboratory supporters were positive, with an overall level of agreement between slightly agree and agree. Participants felt that supporters brought a valuable perspective to the classroom, helped build 21st century skills, and added relevance to the curriculum. This finding implies that the comments of President Obama and Secretary of Education Duncan have merit, and that partnerships in education can help students gain the skills needed to be successful in the nation's future workforce (The White House, Office of the Press Secretary, 2013; Duncan (2013)

Views on FFA supporters were also positive, with teachers' overall level of agreement between slightly agree and agree. The teachers in the study felt that students learned soft skills from program supporter interactions, that supporters made FFA more fun, and that the FFA chapter was more active in leadership events because of the supporters. The item, "program supporters should not serve as CDE coaches", had the lowest level of

agreement between slightly disagree and disagree. Many of the items that teachers agreed with most suggest that supporters do add valuable benefits to the FFA component of the program.

Views of SAE supporters were between the slightly agree and agree levels. Teachers felt that SAEs were improved when community stakeholders are involved, that program supporters open up more opportunities for innovative SAEs, and that supporters increased SAE participation. Interestingly, participants felt that supporter involvement opened up opportunities for innovative SAEs, but many of the roles supporting SAEs for Objective 2 were very traditional. Perhaps teachers have experience with some innovative SAEs but they are not the most prevalent SAE type in the program. Another possibility is that students may not be taking advantage of the SAEs created by the supporters. Novel SAE opportunities may exist but students may still gravitate toward the traditional placement and livestock SAEs.

When describing the overall total program, participants' level of agreement did fall between slightly agree and agree. Teachers in this study valued the support that partners provided, and these teachers wanted more supporters than they currently had. Teachers also felt that the program was successful because it included supporters. The conclusion that participants wanted more supporters is interesting to the researcher. Does the number of supporters matter in a program or is it more about the level of involvement of the supporters that matters? More may not always better, especially in the case of agriculture program supporters.

The views of agriculture teachers were compared using several different variables. The views did not significantly differ between states, gender, whether or not the teacher

currently lived in the district they taught, whether or not the teacher grew up in the district they current taught, or their certification method. While each teacher may have a different background, the views were similar on the supporters of the agriculture program.

Differences were found, however, between NAAE members and non-members, where NAAE members had higher scores on the constructs measuring a teacher's views on classroom and laboratory supporters, FFA supporters, and total agriculture program supporters. Why is there a relationship between NAAE membership and the views of agriculture teachers toward supporters? It could be that teachers have interacted with other teachers that shared the importance of supporters in agricultural education. Another factor may be the type of person who joins organizations, because these individuals may enjoy interacting with others and meeting new people. Strong social skills would be effective in gaining new supporters and maintaining quality partnerships, leading to successful interactions. A final factor could be that the NAAE members work as part of a team to reach a common goal, and collaboration may be a helpful skill when working with supporters from various backgrounds.

Differences in the views of supporters were also found between members that provided some form of training to supporters and those that did not. Participants that provided training to supporters had higher mean scores on all four views of agriculture program supporters constructs. Although the effect sizes were low, the relationship is worth discussing. Providing training to supporters could make working with stakeholders more enjoyable. Often times if someone has a pleasant experience with a partnership, he or she will view it positively. Training volunteers may play a major role in how effective a partnership is for the program. This training could explicitly state expectations, procedures,

and expected outcomes that help encourage close collaboration throughout the entire process.

Additionally, differences were found for FFA and overall total agriculture program construct mean scores between teachers' definitions of "community". As teachers' definitions of "community" increased in size, the views of the FFA and overall total program supporters also increased. The effect sizes were small, but the differences prompt the researcher to question the reason for the relationship. Why did teachers more strongly agree with the support of stakeholders as their definition of "community" increased in size? There may be further factors that contribute to this relationship that warrant further investigation.

The final conclusion for Objective 4 was that teachers agreed that professional development should be offered on building agriculture program-community stakeholder partnerships. This finding is encouraging to the researcher because it suggests that teachers realize the value partnerships can offer and are looking for ways to increase the effectiveness of their program partnerships.

Conclusions and Discussion for Objective 5: Teachers' Definitions of "Community"

Objective 5 was to describe the teachers' definitions of "community" in the context of his or her agriculture program. Teachers most frequently selected that their community was about the size of the school district. The size of the entire nation was the least selected option, with only 7.9% of the participants selecting this choice.

An important discussion point is to consider what teachers use to gauge their community. Do teachers focus on a geographic location, constrained by a set number of miles? Or in contrast, do teachers consider their community as the fabric of people that

support one another? For Objective 1, many participants described individuals who were located in their school district such as parents, local agriculture business, and FFA Alumni groups. One support group that was frequently selected was university faculty and staff. While some individuals may have universities in their communities, many do not. The participants are not consciously trying to lie about their definition of "community", but the researcher feels that many teachers may not have considered including additional supporters outside a geographic location. Teachers are encouraged to treat all of their connections, locally, nationally, and internationally, as partnerships in the agriculture program.

Conclusions and Discussion for Objective 6: Barriers to Including Agricultural Education Supporters

Objective 6 was to describe the barriers to including agriculture program supporters. The conclusions took two different perspectives. The first was the perspective of the supporters, as perceived by the agriculture teacher. Agriculture teachers, overwhelmingly, selected that a lack of time was the biggest barrier preventing stakeholders from supporting the program. The second most selected barrier hindering further partnership was a supporter not knowing what assistance the program requires. The participants did not select school policies, security, and clearances as prevalent barriers, which were cited in the prior literature (Decker & Decker, 2003; Talbert et al., 2007).

Teachers need to continue to share the story of what occurs in agricultural education. As concluded in Objective 3, many communication methods that allow easy dissemination of agriculture program accomplishments and activities are not being utilized. Using more forms of communication could help articulate what an agriculture program does to the

community and inform additional supporters that there are opportunities for the supporters to make a difference.

The other perspective of Objective 6 was to identify the barriers that prevent the agriculture teacher from including more supporters into the program. Time to work with the supporters was again the most frequently identified barrier. Being unaware of the potential supporters, concerned about individuals overstepping their boundaries, and reluctance to allow stakeholders to assume responsibility were the selected by a third or less of the participants as barriers.

Time is the biggest barrier for further community partnership, which coincides with previous literature on the barriers hindering partnership (Sanders, 2001). Based on the previous conclusions from the current study, the agriculture teacher is busy initiating new partnerships, communicating with the administration about the supporters of the program, and communicating with community stakeholders. A way to overcome the barrier of time may be to include the students and current supporters, allowing everyone to share the workload. For agriculture program events that are coordinated by the students, a student committee could provide the training for supporters, building valuable interpersonal skills and professional relationships between students and supporters. Agriculture teachers are surrounded by a network of support that needs to be utilized to overcome time as a limiting factor.

Conclusions and Discussion for Objective 7: Describing the Relationships between Teacher and Program Demographics and Views of Teachers on Agricultural Education Program Supporters

Objective 7 was to describe the relationships that existed between the variables in the study. Very strong positive relationships were found between the views of teachers of each component (classroom and laboratory supporters, FFA supporters, and SAE supporters) and the overall total program construct. This is a logical relationship since the total program score included each of the components. There were additional items added to the final overall total program construct though so teachers that view each component positively were more likely to view the total program positively as well.

Substantial positive relationships also were found between the classroom and laboratory construct and both the FFA and SAE constructs. The effects sizes were large, further supporting that teachers who agreed with the supporters of the classroom also agreed with supporters in FFA and SAE. A substantial positive relationship was also found between FFA and SAE. The commonality between teacher views of each component suggests that teachers see the importance of including supporters in the total agricultural education program. Teachers are trained during preservice education to use advisory councils to support the classroom and laboratory component of the program and FFA Alumni to support the FFA chapter. SAE though, does not have an obvious partner. It is promising to see that teachers see the importance of supporters in all areas of the program and are working to use the experts in their community to enhance the school-based agricultural education program.

There were relationships found between demographics and the teacher views constructs. The effect sizes were small, suggesting that each demographic variable did not

explain a large percentage of the views of the teacher. As student enrollment in the district increased, so did the scores on the constructs. Similarly, as the number of agriculture teachers increased, scores on classroom and laboratory, FFA and total program increased. Despite the small effect size, this relationship is worth noting because teachers in large schools may be more adept at working with many supporters. Teachers in a large school need to be able to work with multiple teachers, potentially, and collaborate more with a large team. Large schools may also have more resources to choose from, allowing a teacher to only partner with a few key supporters rather than a large number of supporters.

A final noteworthy relationship was between the years of teaching experience (total and at the current program) and the teachers' views on the classroom and lab construct. Views on the classroom and laboratory supporters increased as teachers taught more years of agriculture. Experience is valuable in knowing how a supporter can be effectively implemented in a program. New teachers do not have the luxury of drawing on years of teaching experience so new teachers should begin building relationships with veteran teachers to gather advice and ideas on using supporters in the agriculture program.

The relationships between the constructs and the agreement with further professional development on building community-agriculture program partnerships were also explored. The relationships between each were low to moderate, suggesting a small to medium effect size. Teacher who had more positive views and agreed more with the support of stakeholders showed more interest in professional development. Teachers may see the benefits of strong community partnerships once they have success in their agriculture program or have learned from others that partnerships work!

Conclusions and Discussion for Objective 8: Predictors of Teacher Views on Agricultural Education Program Supporters

Objective 8 was to determine the teacher and program characteristics that were significant predictors of the teacher views on the total agriculture education program supporters. Significant predictors of the teacher views on the total agriculture program supporters were NAAE membership status and teachers' definitions of "community". As teachers become NAAE members and expanded their definition of "community", their overall views of agriculture program supporters increased.

The conclusion that NAAE membership and an individual's definition of "community" is related to his or her views on the total agriculture program supporters opens up discussion on the importance of experiences during the undergraduate teacher preparation programs. Teachers need to remain open-minded and build partnerships with individuals beyond the borders of the local school district, state, and nation. An experience that takes individuals out of their comfort zones and challenges them to build new connections with others is a way that our future agriculture teachers will gain the skills needed to initiate new partnerships. NAAE membership allows continued collaboration with teachers experiencing similar problems. This expanded network can help a teacher work through issues he/she is experiencing in the agriculture program.

Recommendation for Future Research

The researcher developed eight recommendations for further research based on the conclusions and implications of the current study. The first recommendation is to conduct further studies with similar objectives to describe other regions of the United States. Based on this study, there are regional differences in support groups that may be relevant in one

area and not another. For instance, gun and trap clubs were supporters in Washington but much less so in Idaho and Oregon.

The regions described in future studies could then be compared to one another to determine if there are differences in the agricultural education program supporters and teachers' views of the agricultural education program supporters. Describing other regions can help provide regionally specific recommendations for preservice teacher education programs on the supporters and views of teachers in their area to inform the teacher preparation curriculum. The information could also inform regionally specific professional development on building community-school-based agricultural education program partnerships.

The second recommendation for future research is to investigate agriculture program and community partnerships from the perspective of the program supporter rather than the agriculture teacher. This perspective could provide further insight as to the motivation of agriculture program supporters, their views of the agriculture program, their communication preferences, and the impact they think their support has on the agriculture program. This information could be useful to current teachers as they build new partnerships.

A third research study is to describe the impact that the inclusion of supporters has on the students of the agriculture program. Does supporter involvement affect the skills of students? Do students leave with more soft skills or technical skills when supporters are included? The literature supports that partnerships can help build student skills, but data that explore the relationships between supporter involvement and the students could provide insight on the specific skills partnerships can enhance in the agriculture program curriculum.

A fourth recommendation is to determine the impact that the personality of the agriculture teacher has on the agriculture program-community partnerships. Teachers with different personalities may interact and work with others differently. Knowing the relationships and interactions between these factors could help teachers build skills in all areas during preservice education so they are better prepared to build effective partnerships in their future agriculture program.

A fifth recommendation for research is to analyze how efficacious teachers are in interacting with community supporters. Do agriculture teachers have the skills to interact with community stakeholders and do they feel confident in their abilities to include supporters in the agriculture program? The Borich Needs Assessment Model could be used to address the needs of teachers in the area of agriculture program-community partnerships so that relevant curriculum modification and professional development can occur.

The sixth recommendation by the researcher is for further investigation on the specific roles that each group upholds. Are there certain roles that only an advisory council or FFA Alumni can and should offer? This information could support teachers as they decide where to begin building partnerships for their agriculture program.

A seventh area of future research is to conduct qualitative case studies to identify best practices of teachers who have effectively been able to harness the help of their communities. This could help increase skills for other new teachers. Also, qualitative studies could begin to build a model of family, school, and community partnerships specific to school-based agricultural education.

The final recommendation is to further the investigation on how family, school, and community partnerships interact with the agriculture program. The current research focused

solely on the community sphere of family, school, and community partnerships. A description of each sphere in the total model is recommended.

Recommendations for Teacher Education Program

The researcher has two recommendations for teacher education programs. The first is to provide preservice agriculture teachers with experiences to network with colleagues and become involved in professional organizations. The conclusions from the current study support that an expanded view of community is related to a more positive view of agriculture program supporters. Study abroad trips, domestic study trips, National FFA Convention and Exposition, and NAAE convention are all valuable opportunities to encourage future agriculture teachers to leave their comfort zone and begin to build the competencies needed to build professional relationships with others.

The second recommendation for teacher education programs is to develop hands-on experiences during coursework and student teaching that help students develop the skills needed to work with community supporters. Students could use these opportunities to build communication skills, start agriculture program advocacy media, and learn to effectively coordinate supporter help when running events.

Recommendations for Practicing Agricultural Educators

The final set of recommendations is for practicing school-based agricultural educators. The first recommendation is to frame all stakeholder relationships as partnerships rather than volunteers in the program. The term, partnership, insinuates an exchange between both parties involved. By framing the relationship this way, stakeholders could feel like they are playing a larger role in your program than if they are labeled as volunteers, suggesting that they do not receive anything in return. Teachers need to make sure partners

in the program realize the impacts that their assistance has on students. For some entities, this could be an altruistic benefit of helping a student raise money to attend a university. For others, it could be articulating the number of workers the agriculture program trains for a local business of industry, or the amount of money spent at that business's establishment.

A second recommendation is for agriculture teachers to include home, school, and community partnerships in their agriculture programs. An FFA Alumni can be a great way to incorporate the help of parents and families into the program. Advisory councils are also vital for providing industry relevant support from community members, business and industry, and government entities. The final sphere is the school, which should include both the administration and fellow teachers in the school by communicating with the teachers and administrators about the experiences that occur in the program. Furthermore, school personnel should be invited to help with an event to begin creating the partnership.

A third recommendation is to provide training to partners prior to each event. This training, which could be conducted by the teacher, students, or existing supporters, should include the expectations of the event and what the specific job of each supporter. The work will be front-loaded and allow for a successful event for all involved.

A final recommendation is to diversify the type of communication used to share the agriculture education program experiences. Face-to-face communication, email, and mailed letters may be appropriate for some audiences. Social media such as Facebook, Twitter, and blogs should be incorporated to appeal to additional audiences.

Summary

The researcher concluded that all Northwest school-based agricultural education programs incorporated supporters into the education of their students. While the partnerships in each program may look different, the supporters of the program offered benefits to the agriculture program. Partnerships in school-based agricultural education may not be the panacea for all the issues encountered by agriculture teachers. The views and actions of agriculture teachers suggest, however, that community partnerships are an important part of Northwest school-based agricultural education.

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Appendix 1:

Institutional Review Board Exemption Certificate

University *of* Idaho
Office of Research Assurances
Institutional Review Board
875 Perimeter Drive, MS 3010
Moscow ID 83844-3010
Phone: 208-885-6162
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To: Jeremy Falk

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

Date: 2/5/2014 4:24:07 PM

Title: Partnerships Between Community Stakeholders and Secondary Agricultural Education Programs

Project: 14-23

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

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

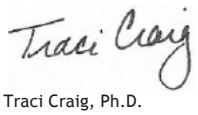
This study may be conducted according to the protocol described in the Application without further review by the IRB. As specific instruments are developed, modify the protocol and upload the instruments in the portal. Every effort should be made to ensure that the project is conducted in a manner consistent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

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

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

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

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



Traci Craig, Ph.D.

Appendix 2:

Participant Email Transcripts

Prenotice Email: Sent March 25, 2014 to all 489 participants

To: [Email]
From: Jeremy Falk (jfalk@uidaho.edu)
Subject Line: Help us describe Ag Ed supporters
Body:

Good afternoon [Name],

The faculty here at the University of Idaho believe in the future of agricultural education, which is why we are reaching out to you, our "expert in the field," to help with our latest project! We want to describe the supporters of agricultural education programs. New and veteran teachers from across the country are looking for best practices as they work with supporters in their own programs. We need your help!

On Thursday, March 27 you will receive an email from jfalk@uidaho.edu with the subject line "Agricultural Education Supporters Questionnaire." Watch for that email to come to you, and then please follow the link in that email to provide your perspective and to help our study.

The online questionnaire will take you 15-20 minutes to complete. Your confidential responses will then be used to support the preparation of pre-service agriculture teachers and inform relevant professional development for all teachers in the west.

As a new teacher myself, thank you in advance for your partnership and for your dedication to the success of agricultural education!

Sincerely,

Douglas Masser
Agricultural Education Graduate Associate
570-809-3000
douglasm@uidaho.edu

Dr. Jeremy Falk, Assistant Professor
Department of Agricultural Education & 4-H Youth Development
College of Agricultural and Life Sciences, University of Idaho
875 Perimeter Drive, MS 2040
Moscow, ID 83844-2040
208-885-6358

Initial Email: Sent March 27, 2014 to all 489 participants

To: [Email]
From: Jeremy Falk (jfalk@uidaho.edu)
Subject Line: Agricultural Education Supporters Questionnaire
Body:

[FirstName],

We need your help describing the supporters of your agricultural education program! Your unique perspective is valuable as we develop undergraduate courses and professional development to keep agricultural education thriving in the Northwest.

Follow this link to the Survey:
[SurveyLink]

Or copy and paste the URL below into your internet browser:
[SurveyURL]

Thank you in advance for your partnership in this study!

Sincerely,

Mr. Douglas Masser
Agricultural Education Graduate Associate
University of Idaho
570-809-3000

Dr. Jeremy Falk
Agricultural Education Assistant Professor
University of Idaho
208-885-6358

First Reminder Email: Sent April 2, 2014 to 399 participants

To: [Email]
From: Jeremy Falk (jfalk@uidaho.edu)
Subject Line: Agricultural Education Supporters Questionnaire-Reminder
Body:

Good morning [FirstName],

We could still use your help to describe the individuals that support your agricultural education program. We know each program is slightly different and we value your perspective.

Follow this link to the Survey:
[SurveyLink]

Or copy and paste the URL below into your internet browser:
[SurveyURL]

Please contact Dr. Jeremy Falk (jfalk@uidaho.edu) or Mr. Douglas Masser (douglasm@uidaho.edu) by email or by calling (208) 885-6358 to answer any questions you have about the project.

Thanks again for your partnership!

Sincerely,

Mr. Douglas Masser
Agricultural Education Graduate Associate
douglasm@uidaho.edu

Dr. Jeremy Falk
Agricultural Education Assistant Professor
Department of Agricultural Education & 4-H Youth Development
College of Agricultural & Life Sciences
University of Idaho

Second Reminder Email: Sent April 7, 2014 to 265 participants

To: [Email]
From: Jeremy Falk (jfalk@uidaho.edu)
Subject Line: Thank you for your Partnership
Body:

[State] Agricultural Educators,

Thanks to all the teachers who shared their perspective on the supporters of their agricultural education program! If you have not had the opportunity to share your thoughts, we still need your help to accurately describe the agricultural education supporters in the Northwest.

Follow this link to the Survey:
[SurveyLink]

Or copy and paste the URL below into your internet browser:
[SurveyURL]

Thanks again and have a great week!

Sincerely,

Mr. Douglas Masser
Agricultural Education Graduate Associate
douglasm@uidaho.edu

Dr. Jeremy Falk
Agricultural Education Assistant Professor
Department of Ag. Education & 4-H YD
College of Agricultural & Life Sciences
University of Idaho
jfalk@uidaho.edu

Thank You Email: Sent April 7, 2014 to 101 participants

To: [Email]
From: Jeremy Falk (jfalk@uidaho.edu)
Subject Line: Thank you for your Partnership
Body:

[FirstName],

Thank you for sharing your perspective on the supporters of your agricultural education program! We look forward to using the responses from the entire Northwest to enhance our undergraduate curriculum and provide relevant professional development to teachers in the profession.

It is because of great educators like yourself that the future of agricultural education remains bright!

Thanks again and have a great week!

Sincerely,

Mr. Douglas Masser
Agricultural Education Graduate Associate
douglasm@uidaho.edu

Dr. Jeremy Falk
Agricultural Education Assistant Professor
Department of Ag. Education & 4-H YD
College of Agricultural & Life Sciences
University of Idaho
jfalk@uidaho.edu

Final Reminder Email: Sent April 15, 2014 to 348 participants

To: [Email]
From: Jeremy Falk (jfalk@uidaho.edu)
Subject Line: Ag Ed Supporters-Help!
Body:

Good morning [FirstName],

There is still time to provide your input on the agricultural education supporters of your program!

Follow this link to the Survey:
[SurveyLink]

Or copy and paste the URL below into your internet browser:
[SurveyURL]

We value your perspective and would ask that you provide your input prior to **Friday, April 18**.

Thank you in advance for your partnership in this project!

Sincerely,

Mr. Douglas Masser
Agricultural Education Graduate Associate
douglasm@uidaho.edu

Dr. Jeremy Falk
Agricultural Education Assistant Professor
Department of Agricultural Education & 4-H Youth Development
College of Agricultural & Life Sciences
University of Idaho

Appendix 3:

Data Collection Instrument

Dear Agricultural Educator,

Thank you for agreeing to participate in this study to support agricultural education in the West! You are being asked to partner with us on this study because of your experiences and first-hand knowledge of agricultural education in your specific community and program. The purpose of the study is to describe the supporters of our secondary agricultural education programs. By gathering this information, the University of Idaho hopes to enhance our undergraduate curriculum, provide professional development, and teaching resources to aid in the process of building stakeholder-agriculture program support. We need your help though as we begin to gather this information!

Expect the survey to last approximately 15-20 minutes. By completing this survey, you are providing the researchers permission to use your answers for research purposes only. Don't worry though, your individual answers will NEVER be reported alone and your name will remain confidential, so be honest and sincere when answering each item.

If at any time during this survey you have questions or concerns, contact Douglas Masser, University of Idaho Graduate Associate, by phone (208-885-6358) or email (douglasm@uidaho.edu).

Thank you in advance for your partnership in this study!

Mr. Douglas Masser
University of Idaho, Graduate Associate

Dr. Jeremy Falk
University of Idaho, Assistant Professor

Dr. Daniel D. Foster
The Pennsylvania State University, Assistant Professor

Dr. Kattlyn Wolf
University of Idaho, Associate Professor

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The following 3 questions aim to describe the groups or individuals that support your agriculture program by giving time, talents, or material resources. Supporters are separated into three different categories: **community-based, business and industry**, and **government-affiliated**.

We understand that individuals may serve in multiple roles so please select all that apply. For example, if your advisory council president is also a local agribusiness owner, then you would select both the advisory council and local agribusinesses as supporters of the program.

Which **community-based entities** support your agriculture program?

First, please **drag and drop** the **community-based entities** that support your program into the box on the right .

Next, **rank your selections:** 1 - Most Supportive, 2 - Second Most Supportive, etc...

Items
Advisory Council
Civic Organizations (Rotary, Lions Club, etc)
Fair/Exhibition Boards
FFA Alumni
Parent Booster Club
Fraternal Organizations (Elks, Eagles, etc)
Gun/Trap Clubs
Other High School Agricultural Education Programs
Parents/Families of Current Students
Parents/Families of Past Students
Political Leaders (Legislators, Mayors, etc)
Religious Organizations
Community Youth Organizations (4-H, Boys and Girls Clubs of America, etc)
School-based Student Groups (Skills USA, FCCLA, etc)
School Personnel (Administrator, Teachers, Staff, etc)
Volunteer Organizations (Humane Society, Red Cross, Salvation Army, etc)
Community Members (Unattached to a group)

Community-Based Entities that Support My Program

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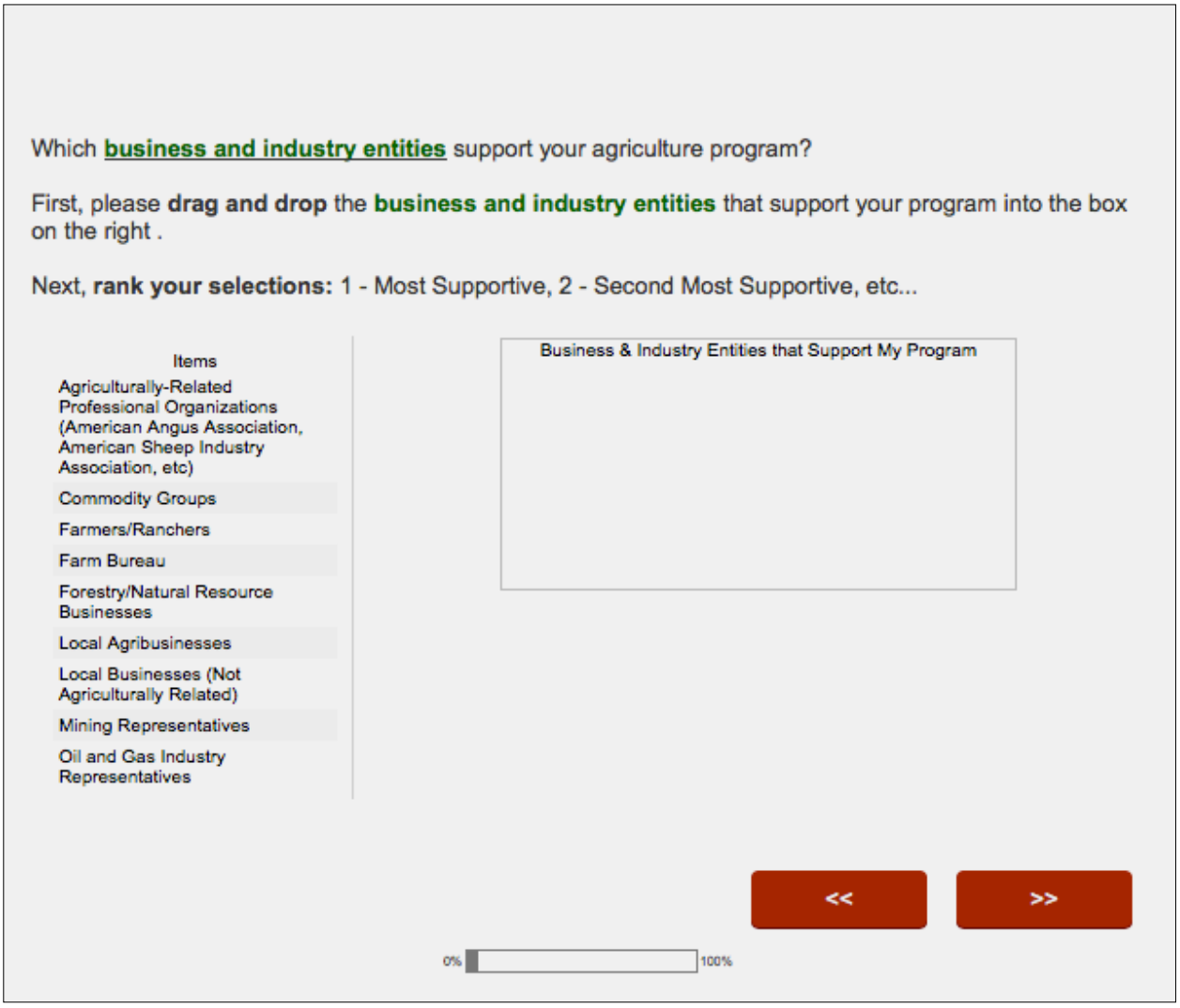
Which business and industry entities support your agriculture program?
First, please drag and drop the business and industry entities that support your program into the box on the right .
Next, rank your selections: 1 - Most Supportive, 2 - Second Most Supportive, etc...
Items
Agriculturally-Related Professional Organizations (American Angus Association, American Sheep Industry Association, etc)
Commodity Groups
Farmers/Ranchers
Farm Bureau
Forestry/Natural Resource Businesses
Local Agribusinesses
Local Businesses (Not Agriculturally Related)
Mining Representatives
Oil and Gas Industry Representatives
Business & Industry Entities that Support My Program
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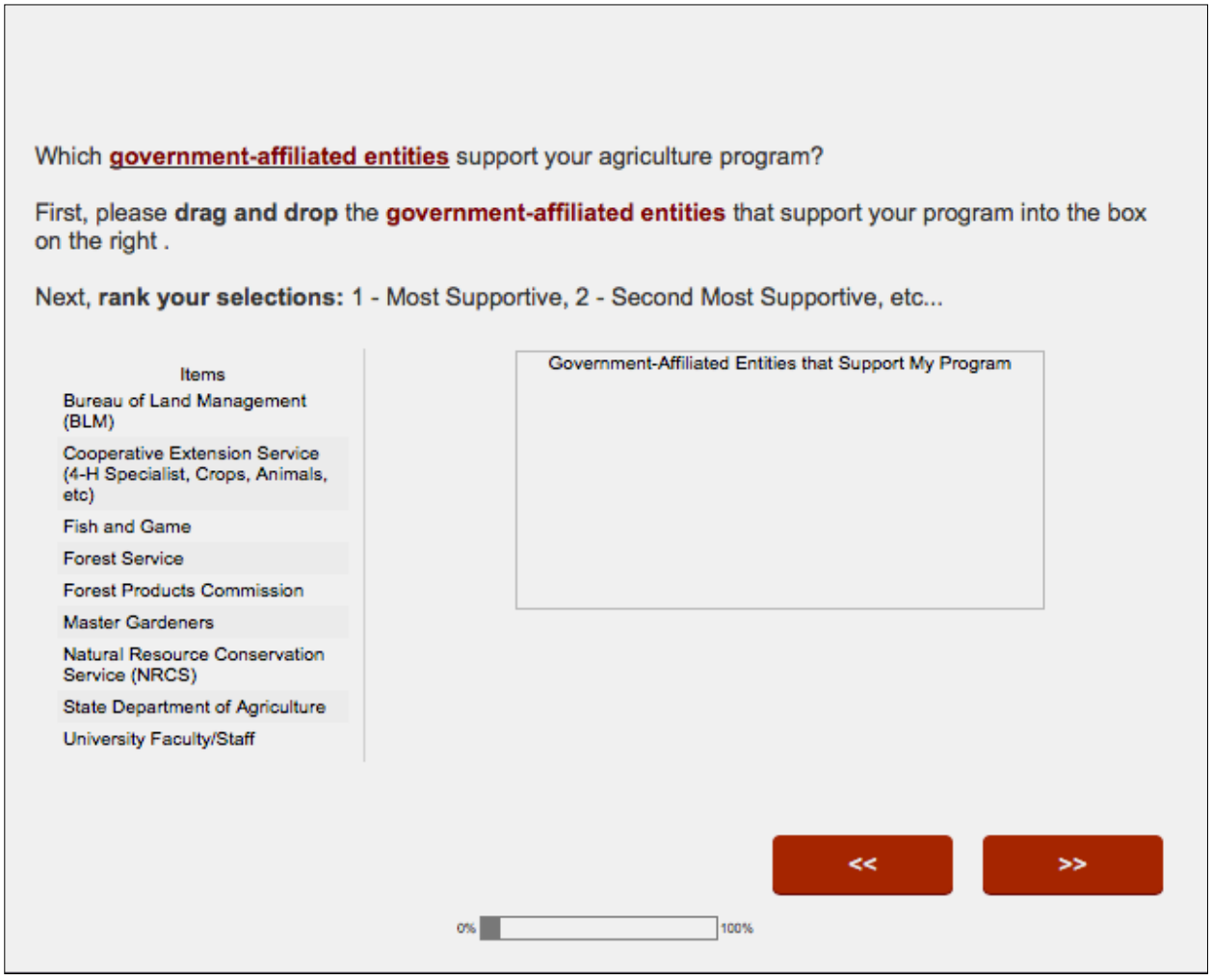
Which government-affiliated entities support your agriculture program?
First, please drag and drop the government-affiliated entities that support your program into the box on the right .
Next, rank your selections: 1 - Most Supportive, 2 - Second Most Supportive, etc...
Items
Bureau of Land Management (BLM)
Cooperative Extension Service (4-H Specialist, Crops, Animals, etc)
Fish and Game
Forest Service
Forest Products Commission
Master Gardeners
Natural Resource Conservation Service (NRCS)
State Department of Agriculture
University Faculty/Staff
Government-Affiliated Entities that Support My Program
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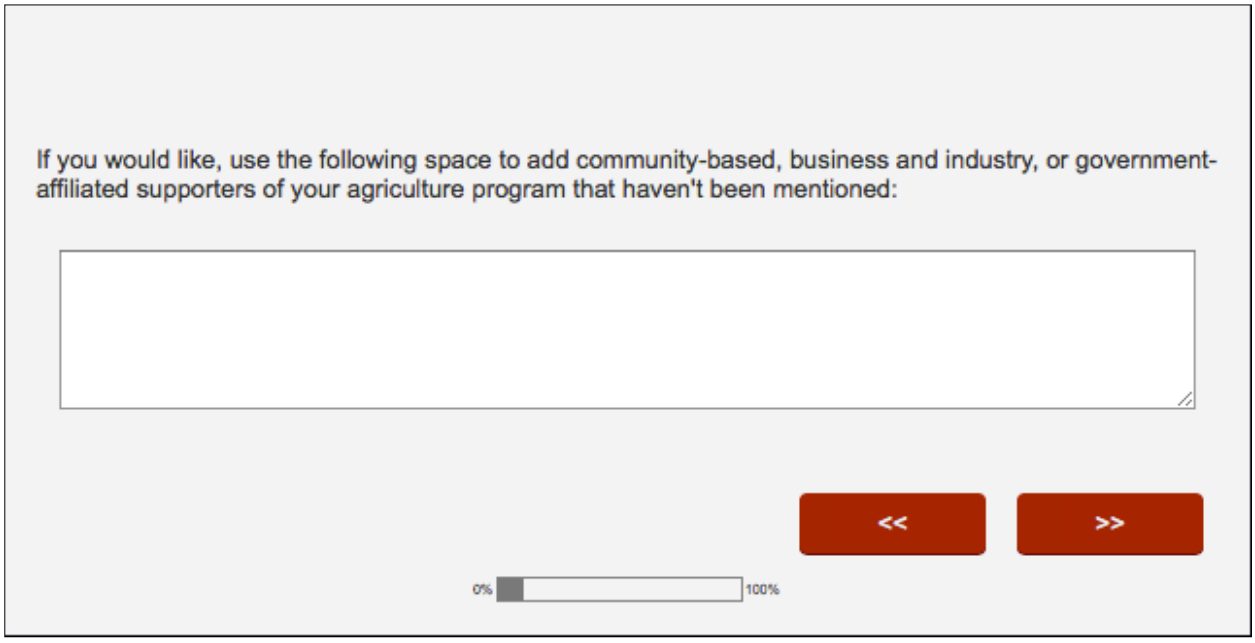
If you would like, use the following space to add community-based, business and industry, or government-affiliated supporters of your agriculture program that haven't been mentioned:
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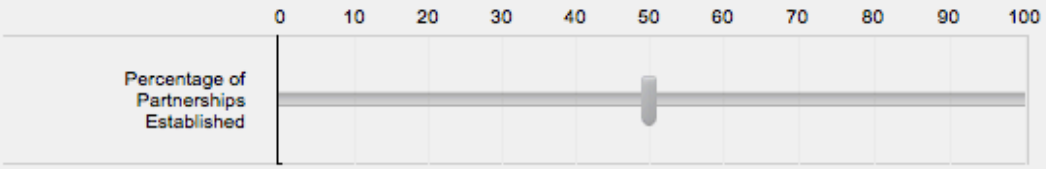
What percentage of relationships between your agriculture program and your current supporters were already established when you started teaching at your current program?

Please click on the sliding bar and drag it to reflect the percentage of partnerships that were established when you started your current position.



When seeking new stakeholder support, who most often initiates the contact between a new community stakeholder and your agriculture program?

- Agriculture Teacher(s)
- New Community Stakeholder
- Existing Supporter
- All partnerships were already established when I was hired
- Other (Please specify)

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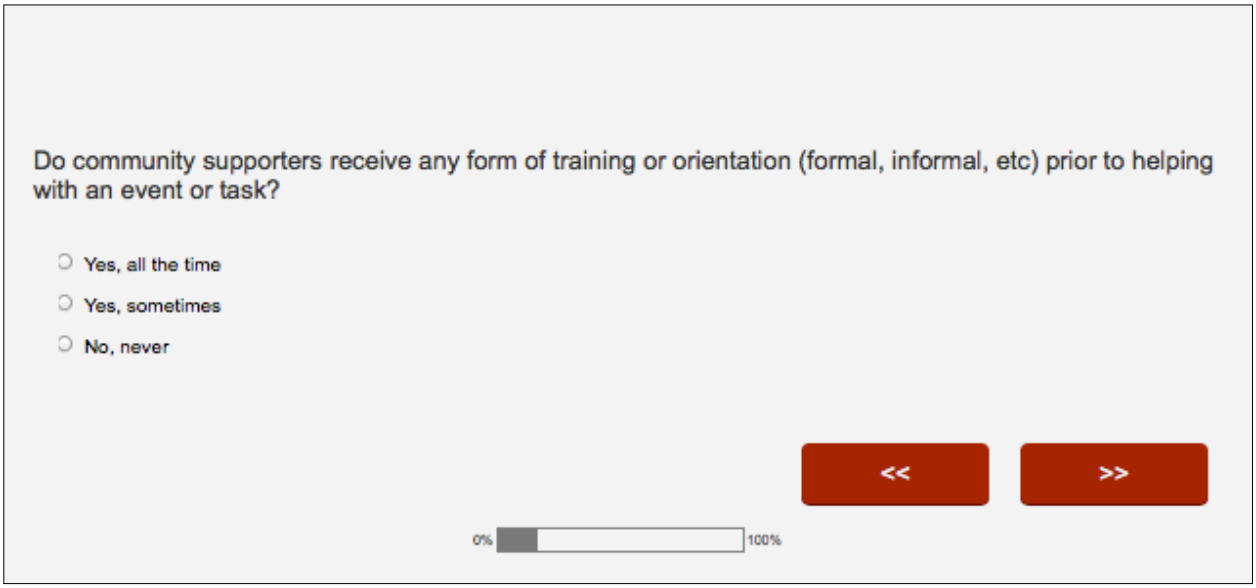
Do community supporters receive any form of training or orientation (formal, informal, etc) prior to helping with an event or task?
Yes, all the time
Yes, sometimes
No, never
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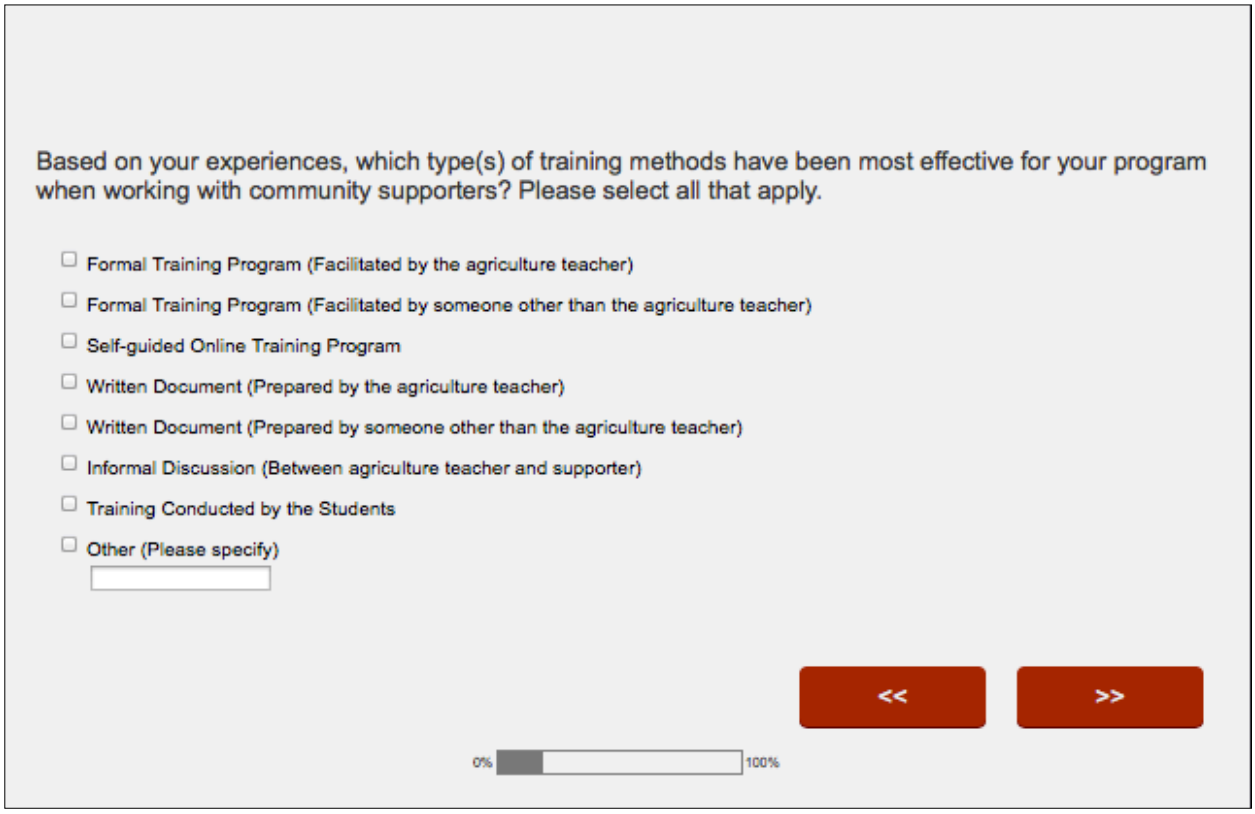
Based on your experiences, which type(s) of training methods have been most effective for your program when working with community supporters? Please select all that apply.
Formal Training Program (Facilitated by the agriculture teacher)
Formal Training Program (Facilitated by someone other than the agriculture teacher)
Self-guided Online Training Program
Written Document (Prepared by the agriculture teacher)
Written Document (Prepared by someone other than the agriculture teacher)
Informal Discussion (Between agriculture teacher and supporter)
Training Conducted by the Students
Other (Please specify)
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The following questions focus on the different ways that your program is supported by the groups and individuals you selected earlier in the survey. Each question focuses on one part of your program: **Classroom and Laboratory**, **Supervised Agricultural Experience (SAE)**, and **FFA**.

Which type(s) of support occur to assist with the **classroom and laboratory component** of your agriculture program?

First, please **drag and drop** the types of support that occur in your program into the box on the right .

Next, **rank your selections:** 1 - Most Frequent, 2 - Second Most Frequent, etc...

Items
Guest Speakers
Field Trip Opportunities
Chaperones for Class Field Trips
Transportation to Curriculum-related Events
Internships
Job Shadowing
Financial Support (classroom, lab, or teacher professional development)
Material Donations
Equipment Use/Rental
Facilities for Classes/Workshops
School Facility Repairs/Improvements
Curriculum Advice
Teacher Resources
Teacher Training Workshops/Courses
Program Advocacy (verbal or nonverbal)

Classroom/Laboratory Support

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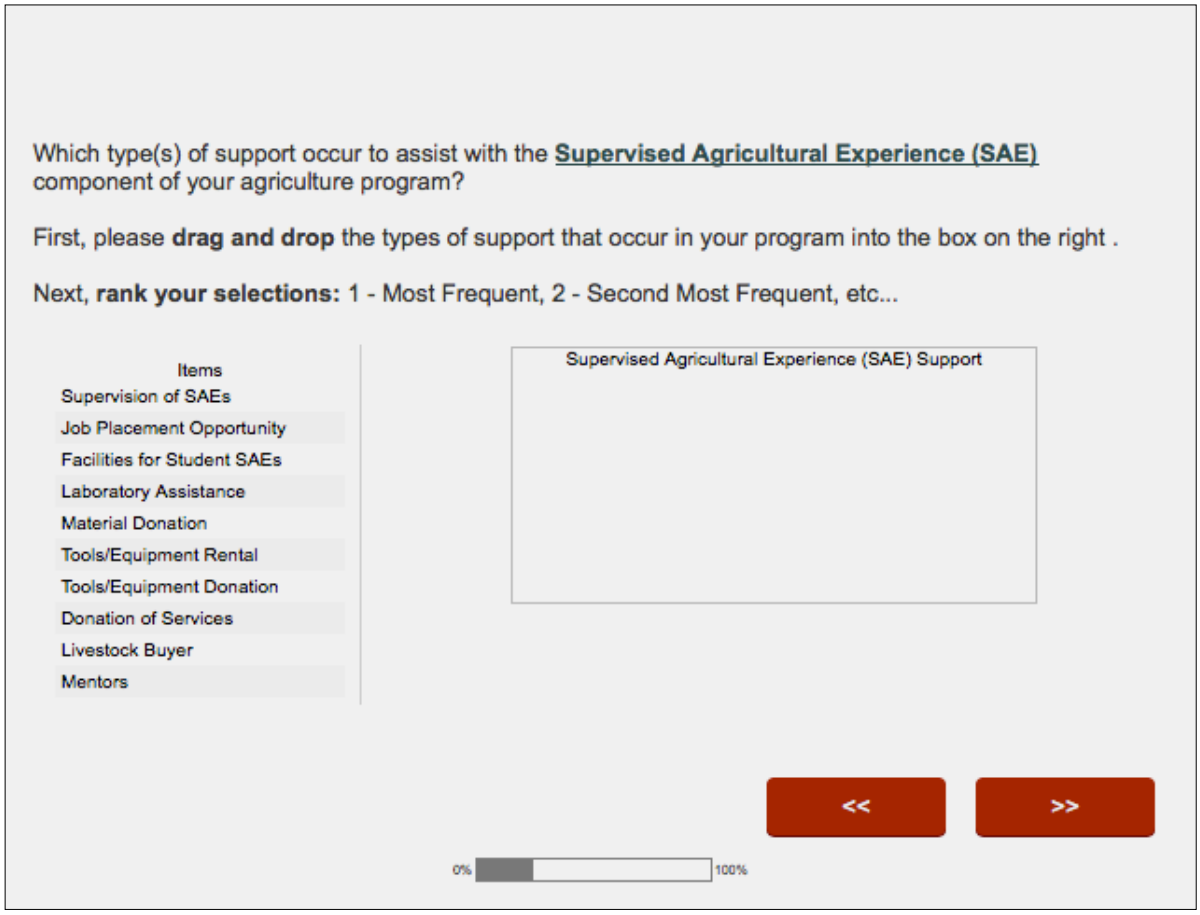
Which type(s) of support occur to assist with the Supervised Agricultural Experience (SAE) component of your agriculture program?
First, please drag and drop the types of support that occur in your program into the box on the right .
Next, rank your selections: 1 - Most Frequent, 2 - Second Most Frequent, etc...
Items
Supervision of SAEs
Job Placement Opportunity
Facilities for Student SAEs
Laboratory Assistance
Material Donation
Tools/Equipment Rental
Tools/Equipment Donation
Donation of Services
Livestock Buyer
Mentors
Supervised Agricultural Experience (SAE) Support
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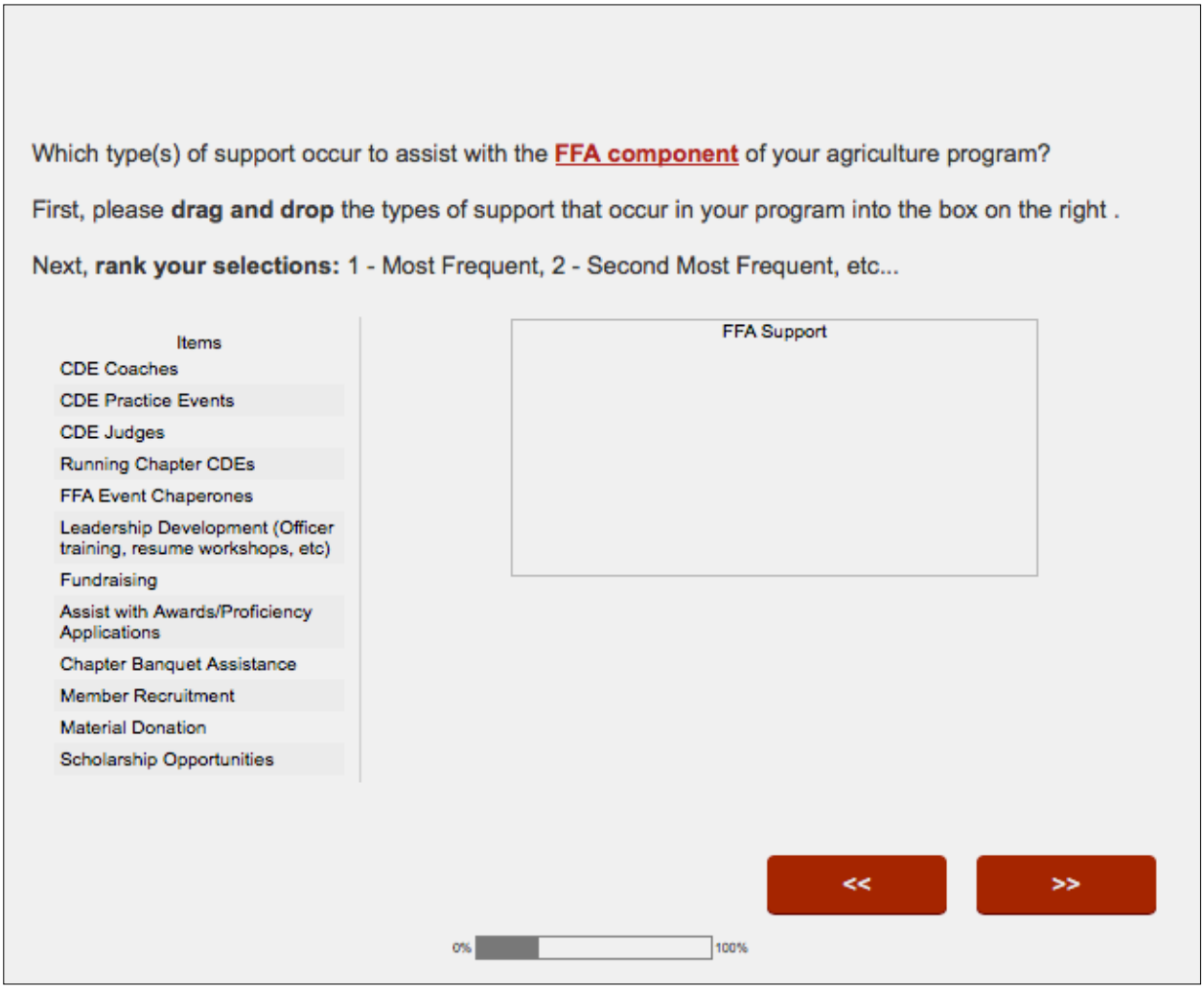
Which type(s) of support occur to assist with the FFA component of your agriculture program?
First, please drag and drop the types of support that occur in your program into the box on the right .
Next, rank your selections: 1 - Most Frequent, 2 - Second Most Frequent, etc...
Items
CDE Coaches
CDE Practice Events
CDE Judges
Running Chapter CDEs
FFA Event Chaperones
Leadership Development (Officer training, resume workshops, etc)
Fundraising
Assist with Awards/Proficiency Applications
Chapter Banquet Assistance
Member Recruitment
Material Donation
Scholarship Opportunities
FFA Support
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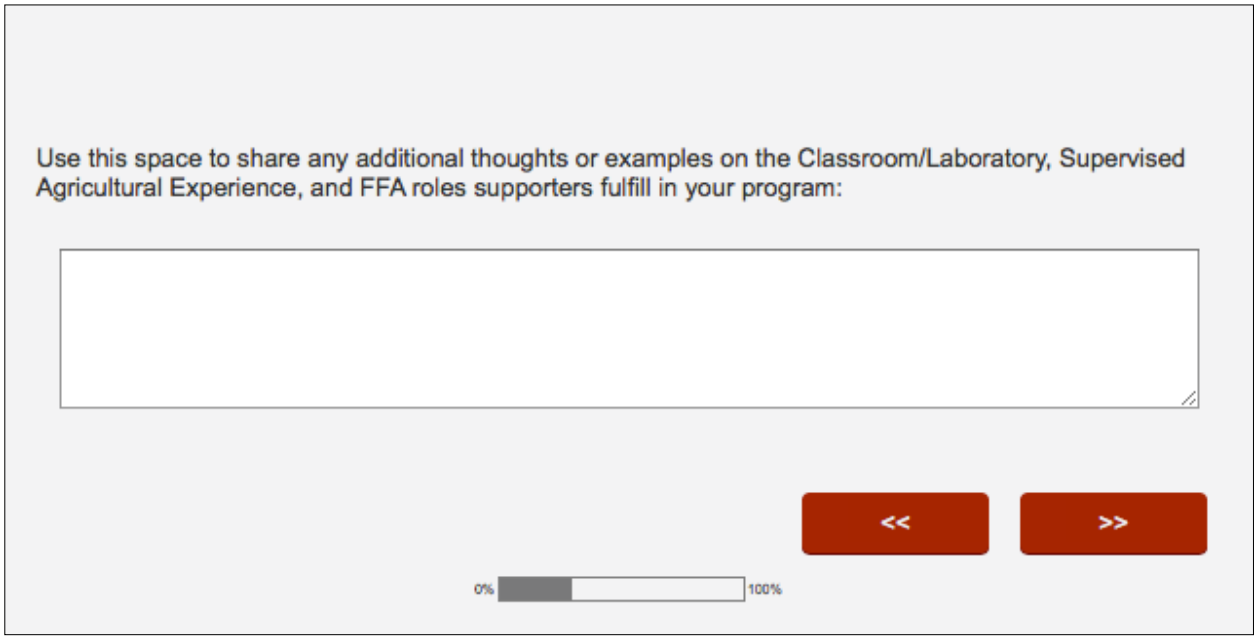
Use this space to share any additional thoughts or examples on the Classroom/Laboratory, Supervised Agricultural Experience, and FFA roles supporters fulfill in your program:
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How do you communicate with the agricultural education supporters of your program? Please select all that apply.

- ☐ Face-to-Face Communication
- ☐ Phone Call
- ☐ Email
- ☐ Mailed Letters
- ☐ Mailed Program Newsletter
- ☐ Digital Program Newsletter
- ☐ Facebook
- ☐ Twitter
- ☐ Blogs
- ☐ Text Messaging
- ☐ School/Program Website
- ☐ Signs in the Community
- ☐ Other (Please specify)

How do you communicate with ALL stakeholders in your program, even if they do not actively play a role in supporting your program? Please select all that apply.

- ☐ Face-to-Face Communication
- ☐ Phone Call
- ☐ Email
- ☐ Mailed Letters
- ☐ Mailed Program Newsletter
- ☐ Digital Program Newsletter
- ☐ Facebook
- ☐ Twitter
- ☐ Blogs
- ☐ Text Messaging
- ☐ School/Program Website
- ☐ Signs in the Community
- ☐ Other (Please specify)

How do you recognize your agricultural education program supporters?

- ☐ Formal Recognition at Chapter Banquet
- ☐ Plaques, Banners, or Certificates
- ☐ Phone Call
- ☐ Written Letter
- ☐ Email
- ☐ Newspaper Article
- ☐ Social Media
- ☐ Awards at the State Level
- ☐ Awards at the National Level
- ☐ Other (Please specify)

How do your school administrator(s) learn about the supporters of the agriculture program? Please select all that apply.

- ☐ Agriculture Teacher
- ☐ Chapter Banquet
- ☐ Communication with Community Supporters
- ☐ They are unaware of our agricultural education supporters
- ☐ Other (Please specify)

Use this space to share additional information about how you communicate and recognize program supporters:

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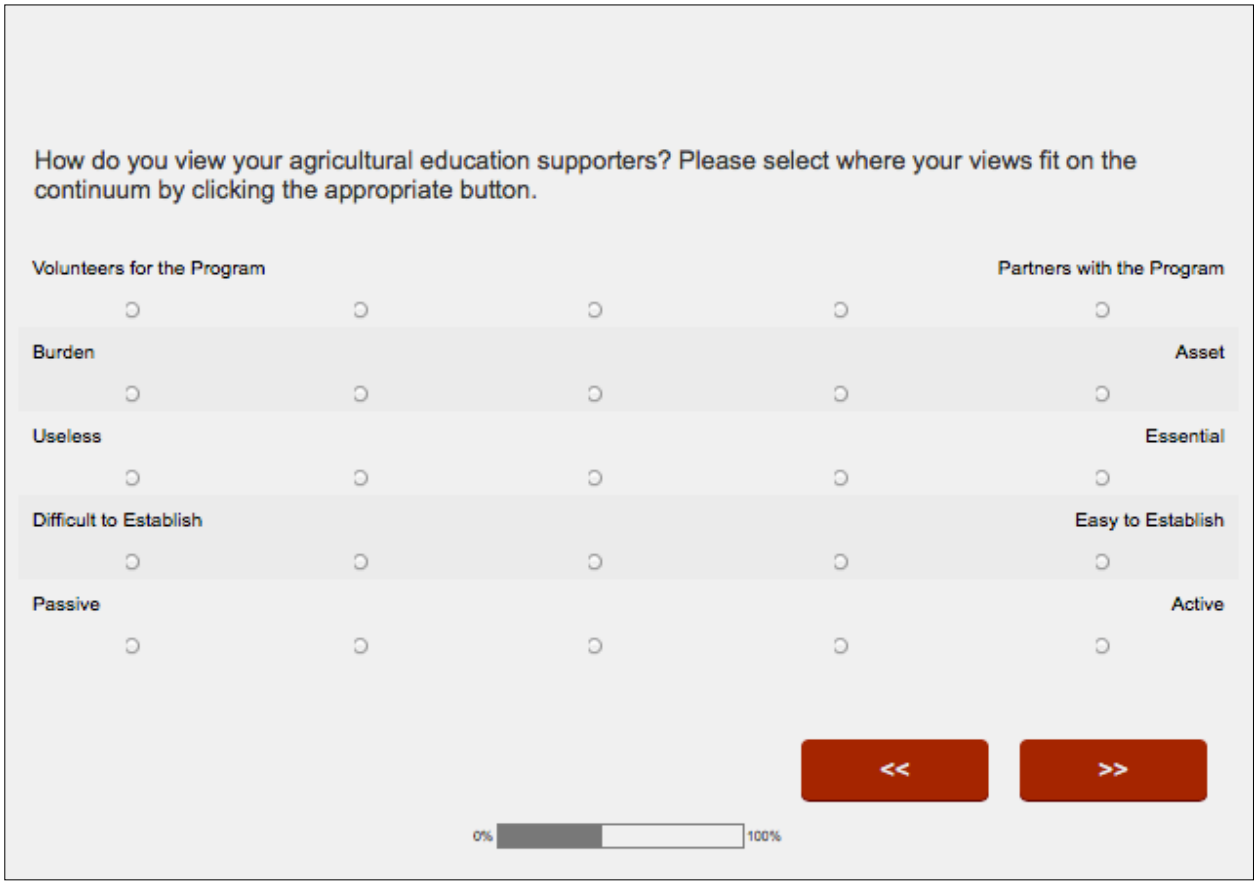
How do you view your agricultural education supporters? Please select where your views fit on the continuum by clicking the appropriate button.
Volunteers for the Program
Partners with the Program
Burden
Asset
Useless
Essential
Difficult to Establish
Easy to Establish
Passive
Active
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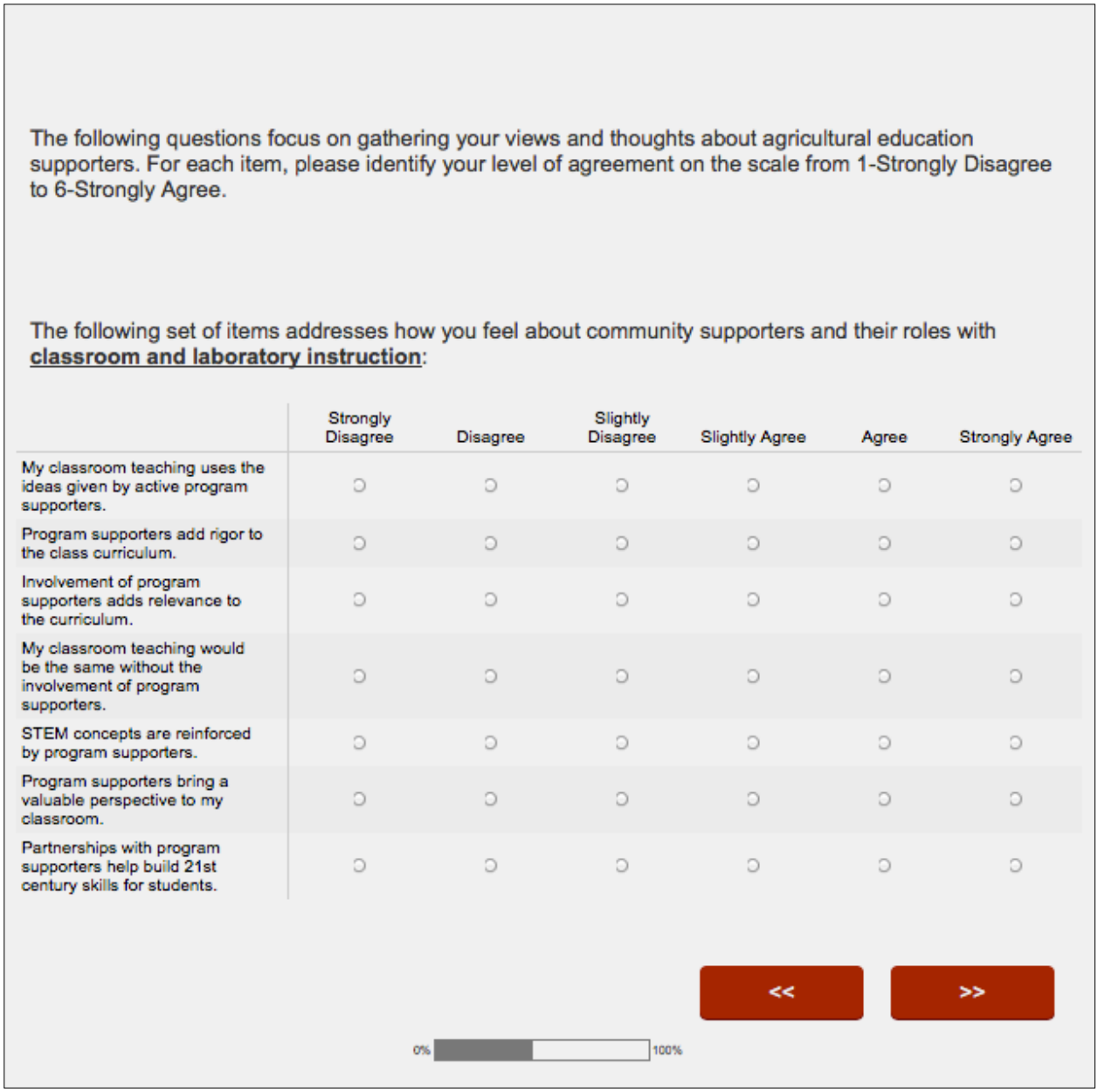

The following questions focus on gathering your views and thoughts about agricultural education supporters. For each item, please identify your level of agreement on the scale from 1-Strongly Disagree to 6-Strongly Agree.

The following set of items addresses how you feel about community supporters and their roles with **classroom and laboratory instruction**:

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
My classroom teaching uses the ideas given by active program supporters.	○	○	○	○	○	○
Program supporters add rigor to the class curriculum.	○	○	○	○	○	○
Involvement of program supporters adds relevance to the curriculum.	○	○	○	○	○	○
My classroom teaching would be the same without the involvement of program supporters.	○	○	○	○	○	○
STEM concepts are reinforced by program supporters.	○	○	○	○	○	○
Program supporters bring a valuable perspective to my classroom.	○	○	○	○	○	○
Partnerships with program supporters help build 21st century skills for students.	○	○	○	○	○	○

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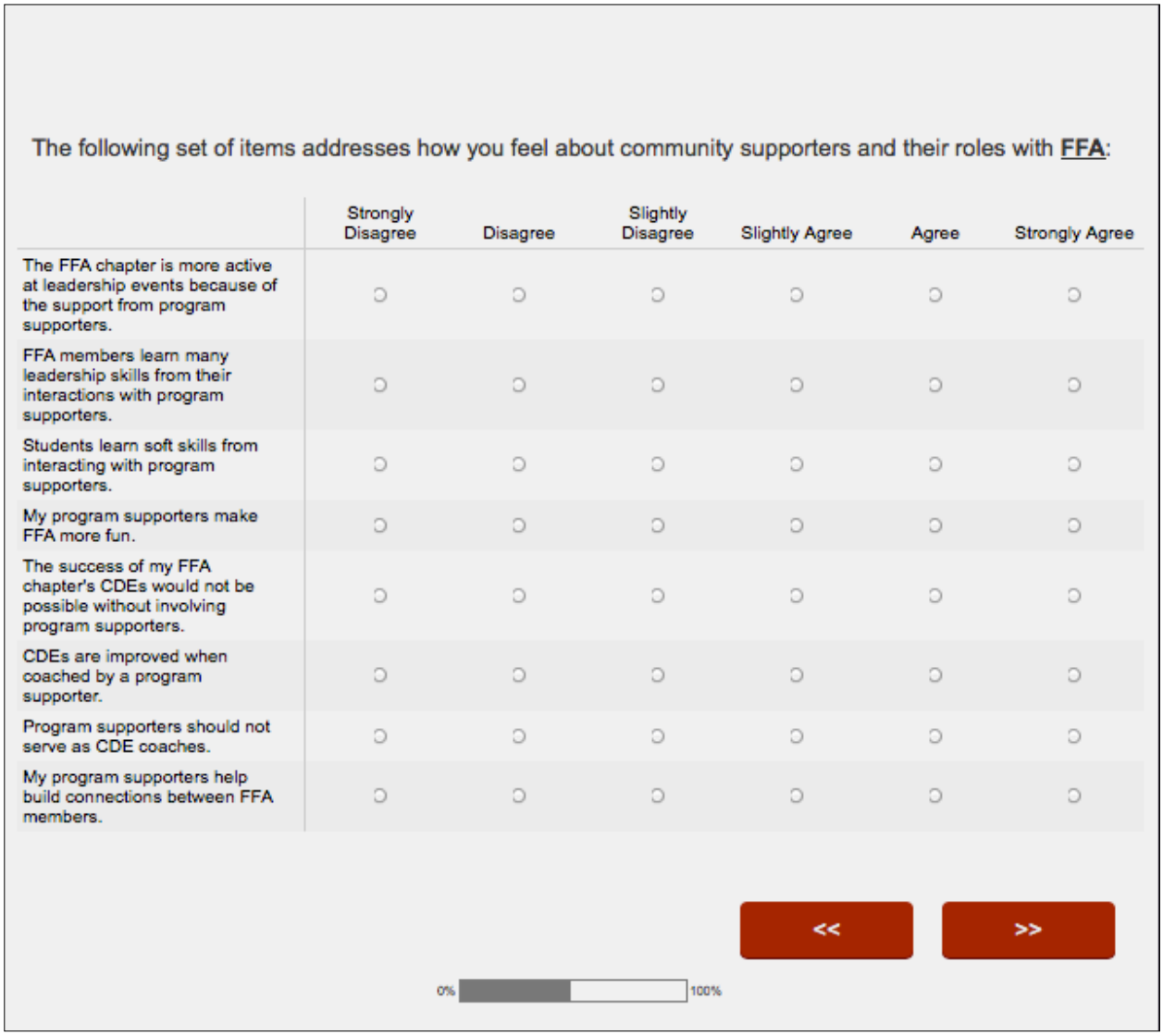
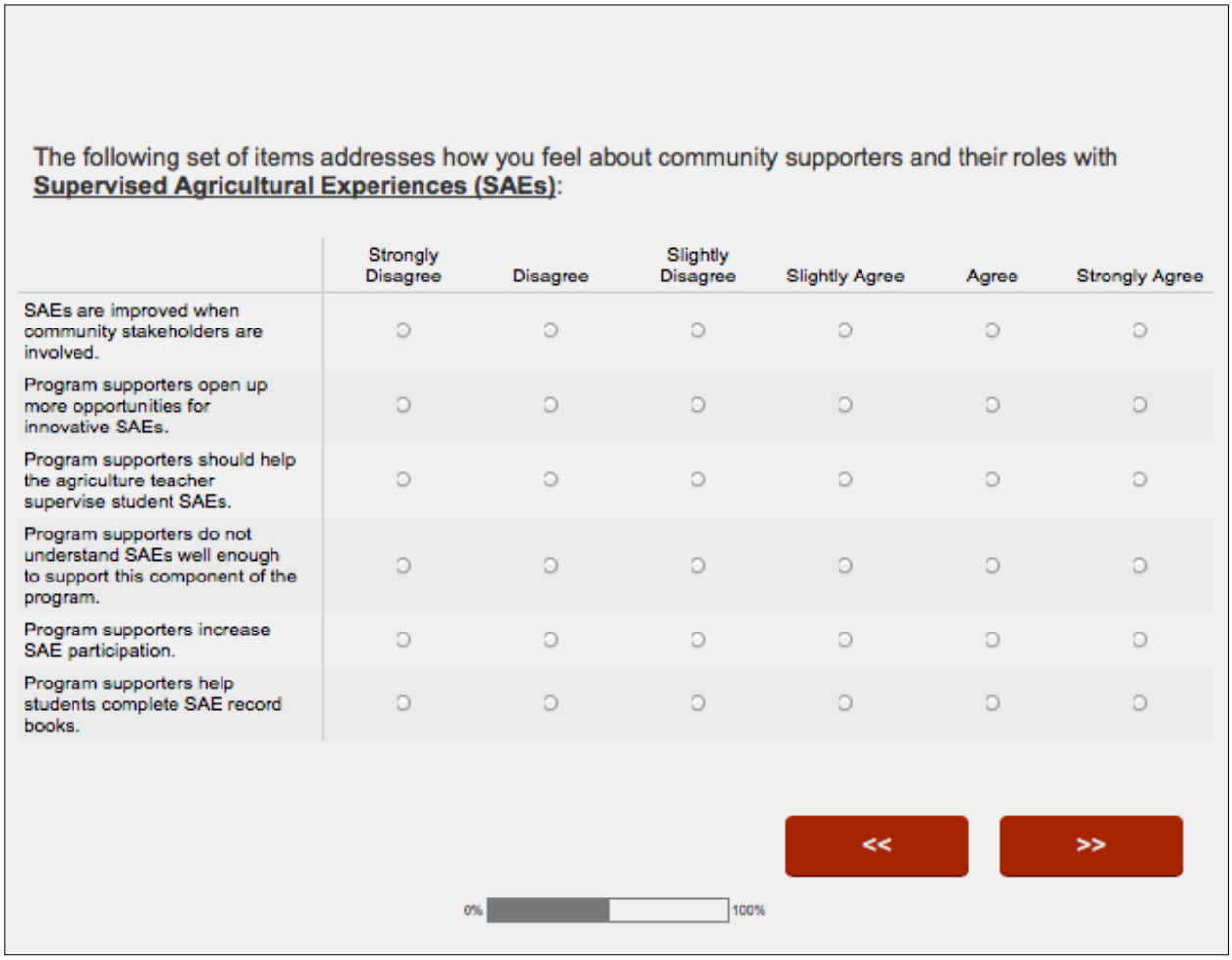


The following set of items addresses how you feel about community supporters and their roles with **FFA**:

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
The FFA chapter is more active at leadership events because of the support from program supporters.	○	○	○	○	○	○
FFA members learn many leadership skills from their interactions with program supporters.	○	○	○	○	○	○
Students learn soft skills from interacting with program supporters.	○	○	○	○	○	○
My program supporters make FFA more fun.	○	○	○	○	○	○
The success of my FFA chapter's CDEs would not be possible without involving program supporters.	○	○	○	○	○	○
CDEs are improved when coached by a program supporter.	○	○	○	○	○	○
Program supporters should not serve as CDE coaches.	○	○	○	○	○	○
My program supporters help build connections between FFA members.	○	○	○	○	○	○



The following set of items addresses how you feel about community supporters and their roles with **Supervised Agricultural Experiences (SAEs)**:

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
SAEs are improved when community stakeholders are involved.	○	○	○	○	○	○
Program supporters open up more opportunities for innovative SAEs.	○	○	○	○	○	○
Program supporters should help the agriculture teacher supervise student SAEs.	○	○	○	○	○	○
Program supporters do not understand SAEs well enough to support this component of the program.	○	○	○	○	○	○
Program supporters increase SAE participation.	○	○	○	○	○	○
Program supporters help students complete SAE record books.	○	○	○	○	○	○

The following set of items addresses how you feel about community supporters and their roles in your **overall program**:

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
Using program supporters helps lighten a teacher's workload.	○	○	○	○	○	○
It is easier to complete the task myself rather than having the help of a stakeholder.	○	○	○	○	○	○
I am constantly building new partnerships with community stakeholders.	○	○	○	○	○	○
I would not be able to operate my program without the resources agricultural education program supporters offer.	○	○	○	○	○	○
My program is successful because it includes community supporters.	○	○	○	○	○	○
My program supporters should be treated as partners because we both benefit from their involvement.	○	○	○	○	○	○
Financial support from external supporters makes my program better.	○	○	○	○	○	○
I value the program support offered to my program.	○	○	○	○	○	○
I want more program supporters than what I have.	○	○	○	○	○	○
Professional development should be offered on building community-agriculture program partnerships.	○	○	○	○	○	○

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Now we are going to ask you about barriers that prevent further collaboration with stakeholders.

The first question focuses on the barriers that prevent community stakeholders from supporting the program. The second focuses on the barriers that prevent you as the agriculture teacher from gaining more stakeholders.

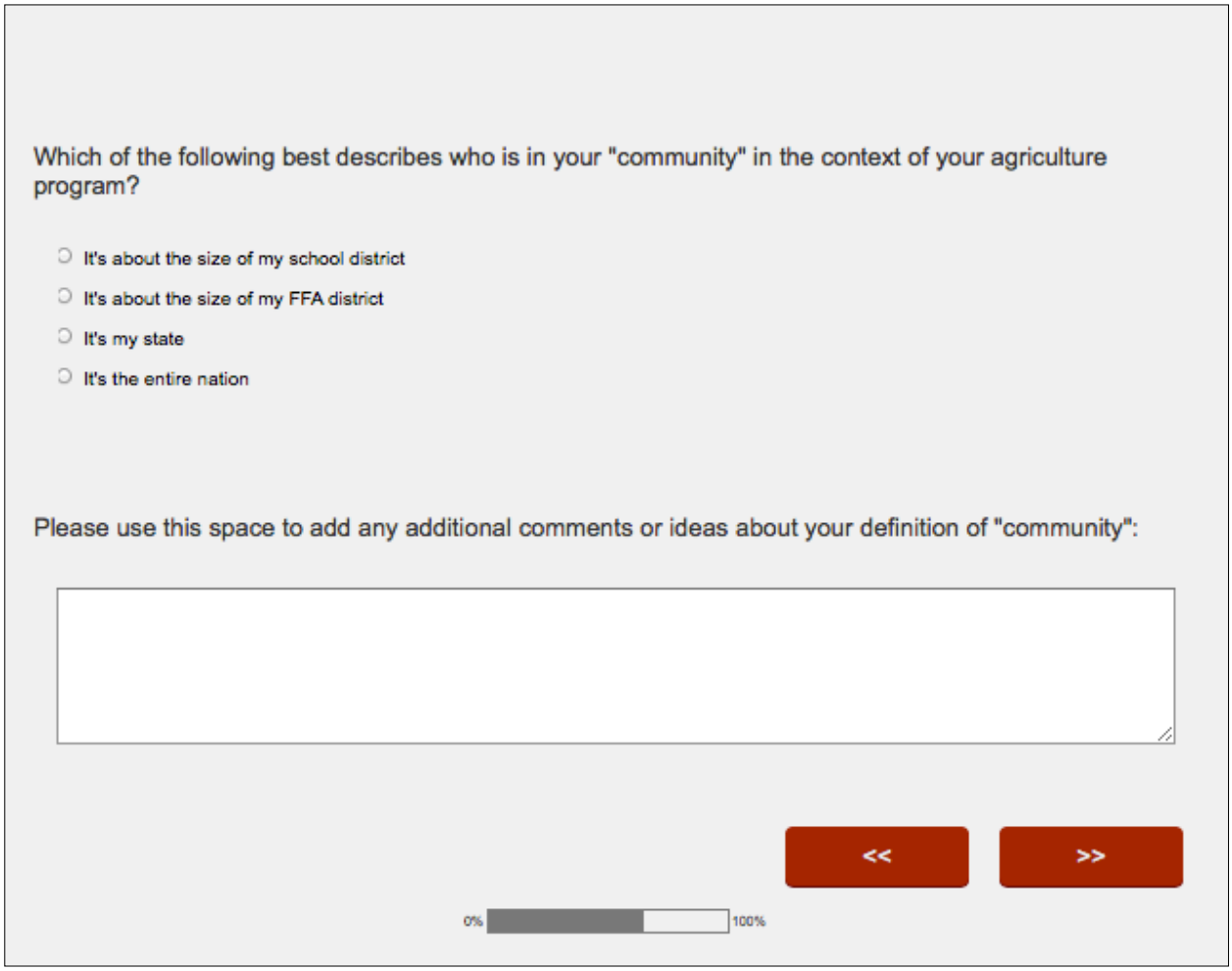
What prevents additional supporters from becoming a part of your agriculture program? Please select all that apply.

- ☐ Lack of time
- ☐ Lack of additional money to support the program
- ☐ Strict security/clearances required by the school
- ☐ School policies on volunteer Help
- ☐ Lack of interest in the help that's needed
- ☐ Lack of understanding of agricultural education
- ☐ Supporters do not know what assistance my program needs
- ☐ Other (Please specify in the space below)

What prevents you as the agriculture teacher from including more agricultural education supporters in the program? Please select all that apply.

- ☐ Reluctance to allow stakeholders to assume responsibility in my program
- ☐ Concerned that community stakeholders will overstep their boundaries and run the program
- ☐ Afraid supporters will view me as stupid if I do not know EVERYTHING about agriculture
- ☐ Uncomfortable with initiating contact with stakeholders
- ☐ School district paperwork to required to include stakeholders
- ☐ The time it takes to work with supporters
- ☐ Unaware of potential supporters/resources in the community
- ☐ Other (Please specify in the space below)

Use this space to add additional thoughts or ideas on how the barriers that exist, preventing further collaboration between the supporters and the agriculture program:



Which of the following best describes who is in your "community" in the context of your agriculture program?

- It's about the size of my school district
- It's about the size of my FFA district
- It's my state
- It's the entire nation

Please use this space to add any additional comments or ideas about your definition of "community":

<<

>>

0% 100%

What is your sex?

- ○ Female
- ○ Male

How many students are enrolled in each of the following:

Number of unduplicated students enrolled in agricultural education classes	
Number of FFA members	
Number of students in the high school	
Number of students in the school district	

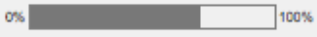
Including this year, how many total years of experience do you have teaching agriculture? Please answer in numerals.

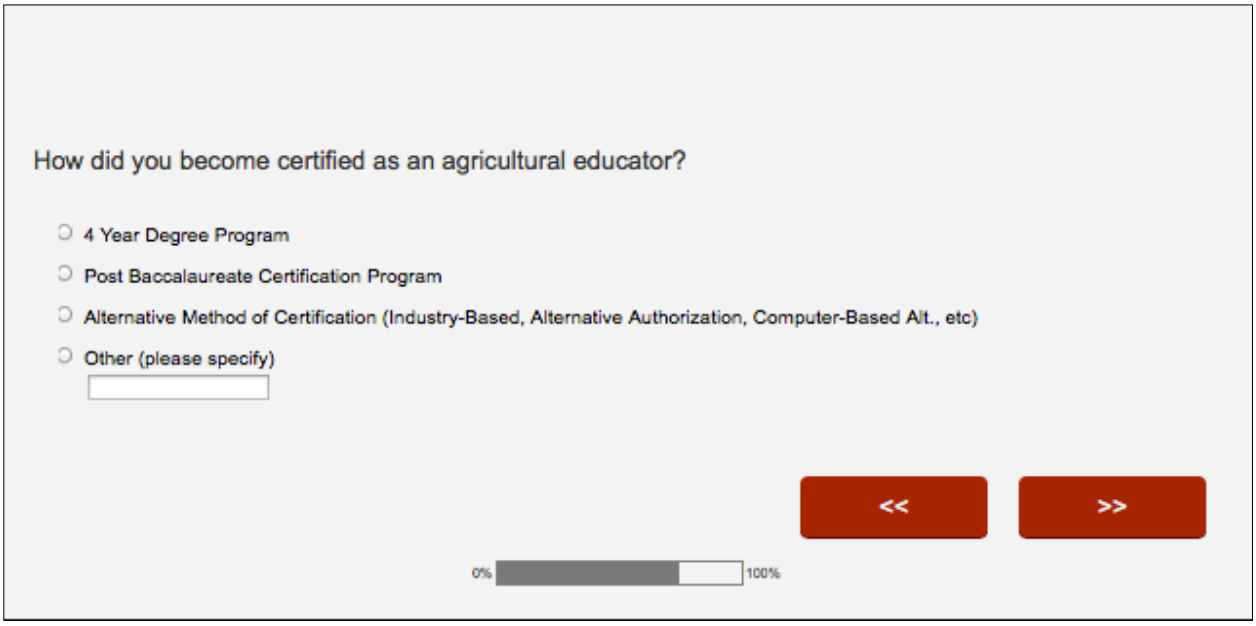
Years of Teaching Agriculture	

Including this year, how many total years have you taught at your current school? Please answer in numerals.

Years of Teaching at Current Program	

Including yourself, how many agricultural educators teach in your program?




How did you become certified as an agricultural educator?
4 Year Degree Program
Post Baccalaureate Certification Program
Alternative Method of Certification (Industry-Based, Alternative Authorization, Computer-Based Alt., etc)
Other (please specify)
<<
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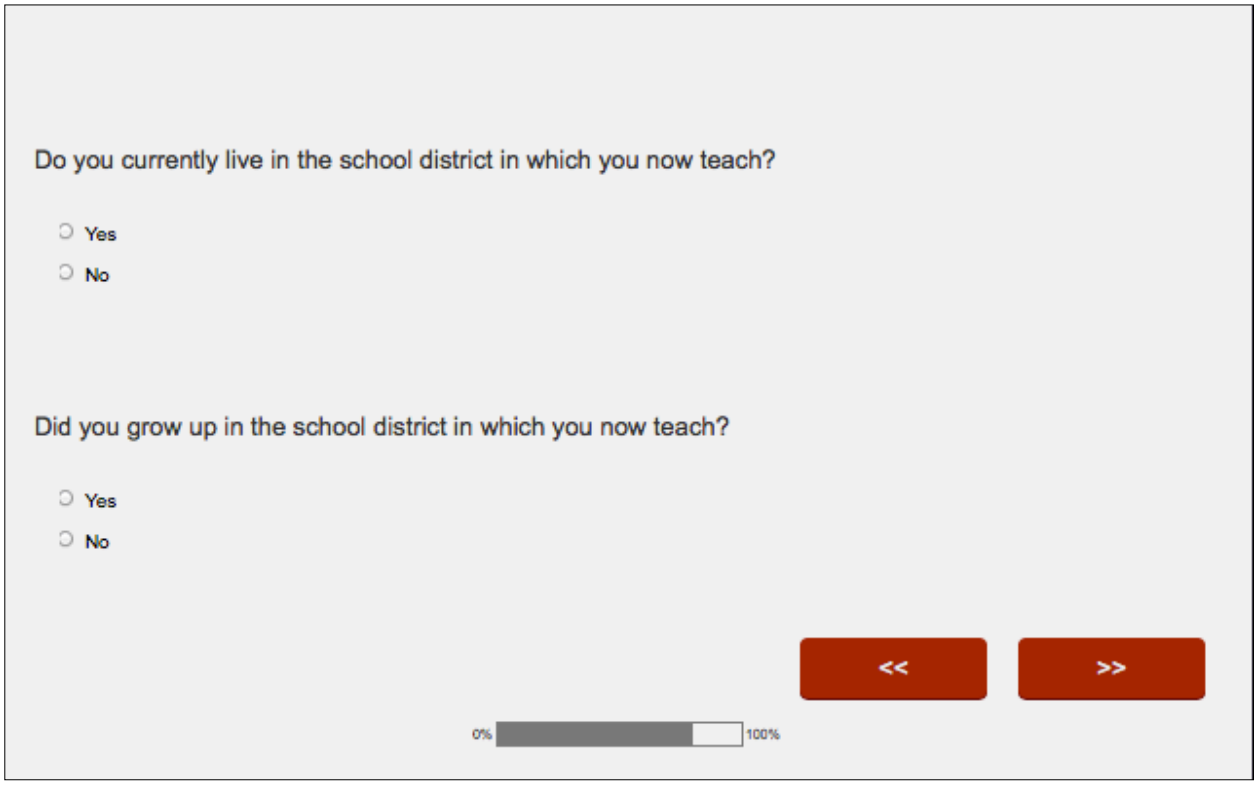
0%
100%


Do you currently live in the school district in which you now teach?
Yes
No
Did you grow up in the school district in which you now teach?
Yes
No
<<
>>
0%
100%


How many days is your extended contract? If you do not have an extended contract, please type "0".
Days of Extended Contract
<<
>>
0%
100%

Are you a current member of the National Association of Agricultural Educators (NAAE)?

- ○ Yes
- ○ No

Are you a current member of your state's agriculture teacher association?

- ○ Yes
- ○ No

What organizations do you belong to in your community? Please select all that apply.

- ☐ Agriculturally-Related Professional Organizations (breed associations, commodity groups, Farm Bureau, etc)
- ☐ Civic Organizations (Rotary, Lions, etc)
- ☐ Fair/Exhibition Boards
- ☐ Fraternal Organizations (Elks, Moose, etc)
- ☐ Gun/Trap Clubs
- ☐ Religious Organizations
- ☐ Volunteer Organizations

Please list other professional organizations that you are a member of currently:

<<

>>

0% 100%


Thank you for your participation in this study!
Please select click "Continue" so your responses are recorded.
<<
>>
0%
100%

Appendix 4:

Supplemental Data Tables

Table A4.1

Demographics of Northwest Agriculture Teacher Participants

Demographic Characteristic	Northwest (*n* = 170)	Idaho (*n* = 74)	Oregon (*n* = 33)	Washington (*n* = 63)
	f (%)	*f (%)*	*f (%)*	*f (%)*
Sex				
Female	60 (34.9)	19 (25.3)	13 (39.4)	28 (43.8)
Male	112 (65.1)	56 (74.7)	20 (60.6)	36 (56.2)
Teachers in Program				
One	102 (60.7)	44 (61.1)	27 (81.8)	31 (49.2)
Two	32 (19.1)	12 (16.7)	5 (15.2)	15 (23.8)
Three	17 (10.1)	7 (9.7)	1 (3.0)	9 (14.3)
Four or more	17 (10.1)	9 (12.5)	-	8 (12.7)
Teacher Certification				
4-Year Degree Program	133 (78.2)	66 (90.4)	16 (48.5)	51 (81.0)
Post-Baccalaureate	21 (12.4)	3 (4.1)	13 (39.4)	5 (7.9)
Alternative Method	16 (9.4)	4 (5.5)	4 (12.1)	7 (11.1)
Living Location				
Live in District	112 (65.9)	51 (68.9)	22 (66.7)	39 (61.9)
Live out of District	58 (34.1)	23 (31.1)	11 (33.3)	24 (38.1)
Past District Attendance				
Raised in District Taught	25 (14.7)	15 (20.3)	3 (9.1)	7 (11.1)
Not Raised in District Taught	145 (85.3)	59 (79.7)	30 (91.9)	56 (88.9)

Table A4.2

Teaching Experience and Extended Contract Length of Northwest Agriculture Teachers

Teaching Characteristic	Northwest (n = 170)	Idaho (n = 74)	Oregon (n = 33)	Washington (n = 63)
	Mdn (Range)	*Mdn (Range)*	*Mdn (Range)*	*Mdn (Range)*
Agriculture Teaching Experience				
Total	13 (1 – 39)	13 (1 – 36)	9 (1 – 39)	15 (1 – 39)
Current Program	9 (<1 – 36)	8 (1 – 34)	7 (<1 – 35)	11 (1 – 36)
Extended Contract Length	30 (0 – 90)	30 (0 – 60)	20 (0 – 90)	30 (0 – 50)

Table A4.3

Construct Means for Demographic Characteristics of Northwest Agriculture Teachers (n = 172)

Demographic Characteristic	Classroom & Laboratory Construct	FFA Construct	SAE Construct	Total Program Construct
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*
State				
Idaho	4.35 (1.10)	4.45 (0.97)	4.13 (0.76)	4.40 (0.84)
Oregon	4.06 (0.96)	4.39 (0.66)	4.03 (0.75)	4.33 (0.59)
Washington	4.44 (0.88)	4.28 (0.84)	4.25 (0.64)	4.40 (0.61)
Sex				
Female	4.16 (1.01)	4.37 (0.84)	4.12 (0.75)	4.32 (0.64)
Male	4.40 (0.99)	4.37 (0.89)	4.17 (0.71)	4.41 (0.75)
NAAE Membership				
Yes	4.39 (0.99)	4.43 (0.86)	4.18 (0.75)	4.44 (0.71)
No	3.98 (0.98)	4.02 (0.85)	4.01 (0.51)	4.07 (0.67)
Did you grow up in the district you now teach?				
Yes	4.45 (1.03)	4.41 (0.98)	4.13 (0.75)	4.43 (0.88)
No	4.29 (1.00)	4.36 (0.85)	4.15 (0.71)	4.37 (0.68)
Do you currently live in the district?				
Yes	4.39 (1.07)	4.38 (0.92)	4.16 (0.74)	4.40 (0.75)
No	4.19 (0.86)	4.35 (0.79)	4.13 (0.68)	4.34 (0.63)
Do supporters receive training?				
Yes	4.43 (0.92)	4.46 (0.80)	4.20 (0.72)	4.46 (0.68)
No	3.65 (1.24)	3.77 (1.08)	3.84 (0.61)	3.85 (0.75)
Definition of Community				
Size of School District	4.15 (1.11)	4.18 (0.90)	4.07 (0.68)	4.20 (0.72)
Size of FFA District	4.38 (0.88)	4.54 (0.77)	4.20 (0.79)	4.50 (0.70)
Size of State	4.63 (0.64)	4.60 (0.78)	4.36 (0.58)	4.62 (0.51)
Size of Nation	4.77 (0.99)	4.72 (1.03)	4.38 (0.70)	4.73 (0.78)
Certification				
Traditional	4.31 (1.00)	4.37 (0.87)	4.16 (0.71)	4.37 (0.73)
Alternative	4.43 (1.05)	4.35 (0.92)	3.99 (0.80)	4.51 (0.54)