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FACTORS MOTIVATING INDIVIDUALS WITH NO SCHOOL-BASED AGRICULTURAL  
EDUCATION BACKGROUND TO ENTER THE PROFESSION

JENNA KAY OFFERMAN

100 Pages

Teacher recruitment and retention have been deemed a national issue across all disciplines and grade levels in education. School-based agricultural education (SBAE) has been no exception as it has also seen a substantial decline in individuals majoring in agricultural education, entering the teaching profession, and then choosing to remain an SBAE teacher until eligible for retirement. This has resulted in a shortage of qualified SBAE teachers across the country. While alternative licensure routes have existed to help fill these teaching vacancies, it has done little to solve the long-term problem of acquiring qualified, career SBAE teachers. Agricultural education stakeholder groups have been tasked with identifying potential individuals to fill this rapidly expanding employment gap. To accomplish this task, it has been necessary to recruit from non-traditional demographic groups, including those individuals who never experienced SBAE as a student. While the number of teachers that currently fit within that demographic are relatively small, the potential to recruit SBAE teachers from that population has shown promise. The purpose of this study was to examine factors that influenced current SBAE teachers, that never experienced SBAE as a student, to major in and pursue a career in agricultural education. Specific objectives included: (1) identify factors motivating former non-SBAE students to enter the agricultural education profession; (2) describe the advantages and disadvantages of not having participated in a SBAE program; and (3) identify strategies to recruit individuals that did not participate in an SBAE program.

To investigate the research problem and specific objectives, a qualitative study was conducted. A phenomenological approach was used to examine the phenomenon of former non-SBAE students entering the agricultural education profession. Current Illinois SBAE teachers that never participated in a high school or middle school SBAE program were identified by Illinois agricultural education state staff. Ten individuals that met the criteria agreed to participate in semi-structured interviews conducted by the researcher. Interviews were recorded and transcribed verbatim. Open coding was used to reveal themes based on the research objectives and interview questions.

Common themes developed explaining reasons former non-SBAE students chose to enter the agricultural education profession. Themes revealed included possessing an agricultural background, taking agriculture coursework in college, growing up in a family of teachers, and having the career suggested to them. Having no pre-conceived notions of SBAE was identified as an advantage and the lack of FFA and SAE knowledge was identified as a disadvantage of not participating in a SBAE program. Further, a potential recruitment strategy identified included encouraging individuals in SBAE to be advocates of the profession. It is recommended future research is conducted on a larger scale and with other non-traditional demographic groups.

**KEYWORDS:** Agriculture; Education; Recruitment; Retention; Vacancies; Nontraditional

FACTORS MOTIVATING INDIVIDUALS WITH NO SCHOOL-BASED AGRICULTURAL  
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JENNA KAY OFFERMAN

A Thesis Submitted in Partial  
Fulfillment of the Requirements  
for the Degree of

MASTER OF SCIENCE

Department of Agriculture

ILLINOIS STATE UNIVERSITY

2022

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FACTORS MOTIVATING INDIVIDUALS WITH NO SCHOOL-BASED AGRICULTURAL  
EDUCATION BACKGROUND TO ENTER THE PROFESSION

JENNA KAY OFFERMAN

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## ACKNOWLEDGMENTS

To begin with, I would like to take the time to thank my family and friends for their support throughout my crazy college adventure. Mom, you were always a phone call away to talk me off the ledge when I was very much over college and provided more support than I could ever thank you for. Dad, while not thankful enough, you provided the random words of encouragement and amusing phone calls that kept me going. To my sister Hanna, thank you for understanding why this past summer our random trips could not happen because I was writing. To my friends that might as well be family, thank you for always being a call away when I needed a laugh and for always being there to support me during the tough times. I know I complained to all of you at least once during this journey.

Next, I would like to thank my major professors and co-committee chairs Dr. Lucas Maxwell and Dr. Jay Solomonson. Dr. Maxwell, without you, agricultural education and teaching probably would not have been possible or a thought in my mind. Thank you for coming to AGR 109 my junior year, to talk about this profession and spark my interest. Dr. Solomonson, thank you for coming to ISU during my first year of graduate school and hitting the ground running with this program. You have done amazing things and I cannot wait to see where this program goes. Without both of you, I would not be where I am today or have the passion for the career that I have. Illinois State University Agricultural Education would not be the program it is today without the hours of challenging work and dedication that you both have put into it.

Finally, I would like to thank all the professors that helped me throughout my undergraduate and graduate degree at Illinois State. I would never have found the interest that I

did in the various sectors of agriculture. I would also like to thank all the individuals that took the time to be interviewed. Without you, this study would not have been possible.

J.K.O



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## CHAPTER I: GENERAL INTRODUCTION

### **Background and Setting**

School-Based Agricultural Education (SBAE) is an intra-curricular educational opportunity offered to middle and high school students throughout the United States. According to the National FFA Organization (2022b), over 800,000 students participate in formal SBAE programs each year. Based on a Three-Circle Model of Instruction, agricultural education students learn leadership qualities through the (1) National FFA Organization (formerly known as the Future Farmers of America), (2) experiential learning through a Supervised Agricultural Experiences (SAE) project, and (3) contextual learning through engaging classroom and laboratory instruction (National Association of Agricultural Educators, 2022). All three components play an integral role in an agricultural education students overall experience in SBAE.

The National FFA Organization is the first component of the SBAE Three Circle Model. FFA is a youth organization providing premier leadership, personal growth, and career success training to agricultural education students (National FFA Organization, 2022a). Through this student organization, members take part in Career Development Events (CDE's), leadership conferences, state and national conventions, fellowship activities, and community service events (Phipps et al., 2008). Through FFA, students are introduced to new and innovative ways to help prepare them for a successful career in agriculture, if they choose.

Experiential learning through a SAE project is the second component of the Three Circle Model. The National Council for Agricultural Education (2017) defined SAE as a "student-led, instructor-supervised, work-based learning experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR)

Technical Standards and Career Ready Practices aligned to your Career Plan of study” (p. 2).

This experience provides students the ability to learn more about an agricultural topic they are passionate about, explore a career they may be interested in following high school, and develop several important life skills. Important life skills learned from SAEs include time management, recordkeeping, responsibility, communication, and many others. Students can choose a SAE project that best fits who they are as individuals and topics that pique their interest. By allowing students to choose a SAE project that best fits them, they can express who they are and what they are interested in outside of the four walls of the school building.

The third component of the Three Circle Model is classroom and laboratory instruction. Classroom instruction includes all SBAE courses that are offered through each school. These include courses such as animal science, plant science, horticulture, agribusiness, agricultural mechanics, and natural resources, among others. It is through this component that SBAE teachers plan, organize, and deliver interactive, inquiry-based instruction on a variety of agriculturally related topics.

Successful integration of each of the three instructional components can result in a strong agriculture program that will have a higher likelihood of graduating individuals who are well-rounded and ready to become leaders in agriculture, business, and industry (National Association of Agricultural Educators, 2022). To successfully implement each component of the SBAE Three Circle Model, an agriculture teacher willing to put in the effort and required hours is needed. Research shows agriculture teachers often work well over a 40-hour workweek (Hainline et al., 2015; Murray et al., 2011; Sorensen et al., 2016) to complete their required duties. Unfortunately, individuals willing to put in this extra time are in low supply (Foster et al., 2020). Nationally, SBAE has seen a substantial decline in individuals majoring in agricultural

education and entering the teaching profession (Lawver et al., 2018). Further, many of these individuals are choosing to leave the profession prior to becoming retirement eligible (Lawver et al., 2018).

Unfortunately, teacher recruitment and retention has been deemed a problematic issue across all disciplines and grade-levels in education. The UNESCO Institute for Statistics (2016) stated by the year 2030 the world will need to recruit almost 69 million new teachers. Interestingly, we would not have to consider this statistic if it was not for the rate at which teachers leave the profession. It is estimated that nearly half of all teachers leave the profession within their first five years (Sims & Jerrim, 2020). Collectively, education is seeing a shortage of teachers who want to enter and stay in the profession and the SBAE teacher shortage is only contributing to this problem. For decades we have had a national shortage of qualified agricultural education teachers (Camp et al., 2002; Foster et al., 2020; Kantrovich, 2010).

Mirroring recent national trends, a preliminary report from the Illinois State Board of Education (ISBE) indicated there were nearly 2500 unfilled teaching positions in the state of Illinois for 2022 (Illinois State Board of Education, 2022c). The challenge to fill vacancies is something Illinois has dealt with for decades. To combat this shortage, ISBE has created provisional licensure opportunities, including the Educator License with Stipulations (ELS) certification, for individuals who decide later in their career they want to teach. However, even with these additional licenses, agricultural education teaching vacancies remain unfilled. According to the Illinois Agriculture Education Annual Report (2021), in 2020 there were 84 open SBAE teaching positions and only 36 graduates from university teacher education programs. This forced many school districts to hire provisionally licensed teachers or shut down their secondary agricultural education programs completely. Simply stated, Illinois is not



producing enough graduates from their agricultural education teacher license programs to fill the vacancies posted each year (Andrews & Marzano, 2021).

To solve this issue, it is essential we search for additional teaching candidates beyond the traditional candidate pool. This has required SBAE stakeholders to look outside the box for individuals who are interested in teaching agricultural education, including those with no SBAE background. This population may be a potential solution to filling the supply and demand employment gap we have been experiencing for decades.

### **Need for the Study and Research Problem**

The need for this study was emphasized in the American Association for Agricultural Education's (AAAE) National Research Agenda, Research Priority 3: Sufficient Scientific and Professional Workforce that Addresses the Challenges of the 21st Century (Roberts et al., 2016). Specifically, the study investigated the question "What methods, models, and practices are effective in recruiting agricultural leadership, education, and communication practitioners and supporting their success at all stages of their careers?" (Stripling & Ricketts, 2016, p. 31).

As previously mentioned, within agricultural education there is a SBAE teacher supply and demand employment gap due to universities not producing enough teacher candidates and the substantial number of teachers who leave the profession each year. Consequently, stakeholders within Illinois SBAE are not able to fill these open positions on an annual basis. The employment gap is also widening due to the need to expand and introduce new programs. Between the lack of students graduating from agricultural education licensure programs and the small number of provisional licenses that are applied for and approved, the profession needs a new avenue to draw people into the agricultural education career field.

Many students who enter an agricultural education licensure program at the university level are students who participated in SBAE and the National FFA Organization during their K-12<sup>th</sup> grade education (Ingram et al., 2018). However, there are a small number of agriculture teachers that entered the classroom with no such background (Marx et al., 2017). This specific study was designed to determine and examine the factors that influence an individual with no SBAE background to enter the agricultural education profession. By identifying these factors, we hope to be able to target a new group of individuals that could help fill the unfilled SBAE teacher positions that open up each year. This study specifically addresses the following research problem, “What factors influence an individual with no SBAE background to enter the agricultural education teaching profession?”

### **Theoretical and Conceptual Framework**

The theoretical framework used in this study stems from Bandura’s (1978) Social Learning Theory (SLT). Bandura’s (1978) model focused on how individuals learn through cognitive, behavioral, and environmental factors. Chapman (1983) built further on this theory to create a Career Decision-Making Model that could be used to describe beginning and early career teacher retention. Rots et al. (2010) used both Chapman’s (1983) and Bandura’s (1978) models to create a conceptual model that is tailored specifically to why individuals enter the education teaching profession and how those decisions are made. These models provided the framework for this study. A detailed description of the framework used in this study can be found in Chapter 2.

## **Purpose and Objectives**

The purpose of this qualitative study was to examine factors that influence current SBAE teachers, with no SBAE background, to major in and pursue a career in the agricultural education profession. The findings from this research will be useful in developing agriculture teacher recruitment and retention plans with the goal of narrowing the employment gap that has developed from the low supply and high demand of qualified SBAE teachers. Specific objectives of this study include:

1. Identify factors that motivate individuals that never experienced SBAE as a student to major in and pursue a career in agricultural education.
2. Describe the advantages and disadvantages of an agriculture teacher not having participated in a SBAE program as a student.
3. Identify strategies to recruit potential teachers that did not participate in a SBAE program at the secondary level.

## **Thesis Organization**

This thesis is formatted in an alternate format. It is organized into four chapters including a general introduction, a review of the literature, a manuscript formatted to the appropriate style for the Journal of Agricultural Education (JAE), and general conclusions. It also includes an appendix with supporting materials.

## **Limitations and Assumptions**

This study has several limitations and assumptions. First, this study was limited to sampling only ten SBAE teachers within Illinois. While some may assume the results and

outcomes would be similar in surrounding states and areas with more or less participants, one should not generalize the outcomes beyond the respondents of this study. Caution must be taken when suggesting the findings would be applicable nationwide. To further expand the findings of this study, it is recommended to interview a larger population from various regions of the United States to gather a more holistic view of the research problem.

Another limitation comes from a parameter set for participants to be included in the study. For this research study, only individuals who graduated from a university agricultural education teacher preparation program, obtained a Professional Educator License (PEL), and were current SBAE teachers were deemed eligible to participate. With this limitation we cannot assume that individuals with no SBAE background who entered agriculture teaching education through other means, including those possessing an Educator License with Stipulations (ELS) license, would produce similar findings. Finally, the study was limited by the constraints of the approved Institutional Review Board (IRB) protocol.

In relation to the research done, there were also a couple of assumptions made throughout the study. The first assumption is that participants gave truthful answers during the interview process. It was also assumed that the participants' responses accurately reflect the reasons that they entered SBAE, their perceived advantages/disadvantages of not having participated in SBAE as a student, and their recommended strategies to recruit new SBAE teachers.

### **Definition of Terms**

4-H- The largest nonformal educational youth organization in the world; provided in local communities for students aged 5-18 as a program of USDA's Cooperative Extension System (Phipps et. al., 2008).

Career Development Events (CDE) - Career Development Events are competitive contests that reinforce skills agriculture students learn in the classroom. Students compete in individual and team CDEs at the local, state, and national levels (Talbert et al., 2014).

Educator License with Stipulations (ELS)- A means of becoming a licensed teacher in the state of Illinois without going through a traditional teacher licensure program after meeting the requirements set by the Illinois State Board of Education (Illinois State Board of Education, 2022a).

Experiential Learning - An engaged learning process whereby students “learn by doing” and by reflecting on the experience (Talbert et al., 2014).

Facilitating Coordination in Agricultural Experience (FCAE)- A state-funded project, through the Illinois State Board of Education, whose goal is to provide services that have been deemed essential to the implementation of a statewide plan to improve agricultural education at all levels (Illinois Agricultural Education and FFA, 2022a).

Illinois Association of Vocational Agriculture Teachers (IAVAT)- A professional organization for agricultural educators, within the state of Illinois, which provides members an opportunity for leadership, professionalism, advocacy, and integration with other agencies supportive of agricultural education efforts (Illinois Agricultural Education and FFA, 2022b).

National FFA Organization (formally Future Farmers of America)- An educational, nonprofit, nonpolitical national organization for students enrolled in school-based agricultural education programs; an integral component of agricultural education in the public schools that focuses on student leadership and career development; it consists of chartered state associations and student members in local middle school and high school chapters (Phillips et. al., 2008).

Professional Educator License (PEL) - A license needed to serve as a teacher, school support person, or administrator in Illinois. Individuals PEL's will include credentials called endorsements (Illinois State Board of Education, 2022b).

School Based Agricultural Education (SBAE)- Systemic instruction in agriculture, food, and natural resources within a formal educational setting including elementary, middle school, and secondary levels (Phillips et. al., 2008).

Supervised Agricultural Experience (SAE)- SAE is a “student-led, instructor-supervised, work-based learning experience that results in measurable outcomes within a predefined, agreed upon set of Agriculture, Food and Natural Resources (AFNR) Technical Standards and Career Ready Practices aligned to your Career Plan of study” (National Council for Agricultural Education, 2017, p.2).

Teacher Attrition- The rate at which teachers leave the profession (Broderick, 2021).

Teacher Retention- Educators who remain in the profession from year to year (Jacob et al., 2012).

Three Circle Model of Agricultural Education – Agricultural education instructs students about agriculture, food, and natural resources through three interconnected components: classroom and laboratory instruction, experiential learning through SAE, and leadership education in the National FFA Organization (National Association of Agricultural Educators, 2022).

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## CHAPTER II: LITERATURE REVIEW

### **Purpose of the Study**

The purpose of this qualitative study was to examine factors that influenced individuals, that never experienced SBAE as a student, to major in and pursue a career in agricultural education.

### **Introduction**

This chapter presents a review of the literature related to SBAE teacher recruitment, retention, and attrition and is divided into six sections to aid the reader's understanding of the various topics addressed. In section one, literature related to Social Learning Theory and career choice is discussed. Section two addressed factors influencing individuals to enter the teaching profession. The third section presents literature addressing teacher supply and demand. Section four discussed the national SBAE teacher shortage. In section five, literature specifically addressing the Illinois SBAE teacher shortage and how Illinois is combating the shortage is presented. Finally, section six discussed nontraditional SBAE recruitment techniques and efforts to retain those teachers.

### **Social Learning Theory and Career Choice**

The framework for this study evolved from Bandura's (1978) Social Learning Theory (SLT) which provided a theoretical baseline to help determine why individuals enter the teaching profession. Bandura's (1978) SLT suggested learning is a cognitive process that primarily takes place through observation. Observation is a substantial part of how educators learn, as well as

through direct instruction. Bandura's (1978) SLT suggested that learning is the constant interaction of environmental, behavioral, and cognitive factors.

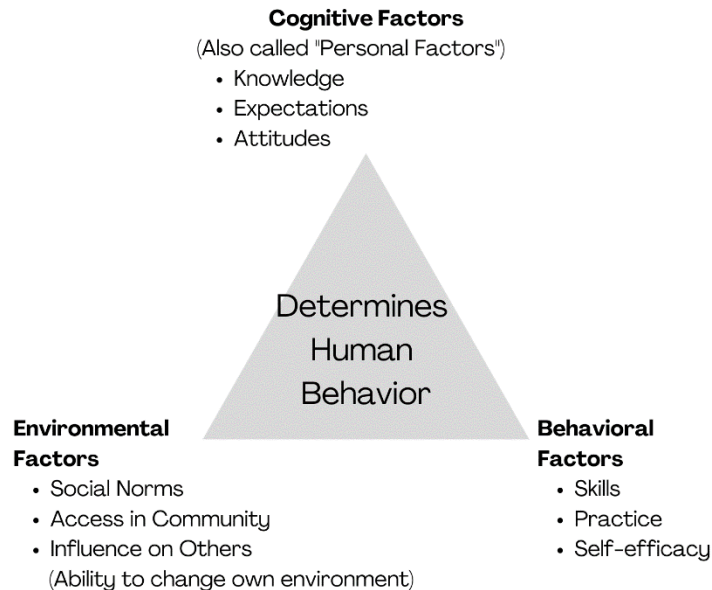
Environmental factors include those influences in the world that surround the individual, such as how others act, what social ring one associates with, expectations others place on you, the feedback one receives from peers and mentors, as well as the values of others around the individual (Bandura, 1978). Behavioral factors relate to oneself and how they respond and react to individual situations. This can differ based on the individual's skill level, amount of practice, as well as the individual's self-efficacy (Bandura, 1978). The third factor of SLT, cognitive factors, are the individual's beliefs, level of knowledge, as well as one's attitude that can affect an individual's ability to make decisions and learn efficiently and effectively (Bandura, 1978).

Figure one explains how there are several factors including cognitive, environmental, and behavioral factors that can influence one to choose the career path that they do. Cognitive factors can stand alone in the sense that one's attitude towards a career can fully affect whether one goes into the career or opts for another path. Environmental factors are another influence that can stand alone or work in conjunction with the other two in the figure. One may be interested in a certain career path but if socially it is not seen as a "norm" or the community lacks the resources for this path, one may have to opt for a career that is available in the community or look to move elsewhere if they are passionate about such career. The third aspect of this figure that can stand alone or work in conjunction with another is behavioral skills. Behavioral skills specifically related to self-efficacy can make or break one's decision to enter a career. While all three of these aspects can help one decide on their final career path, any of these three can be the make-or-break aspect of such a decision. These three factors work in conjunction with one another but

also can have the ability to stand alone and be an independent factor for one choosing a specific career path.

### Figure 1

*Bandura's Social Learning Theory Model (1977)*



Adapted from "Social Learning Theory of Aggression" by Albert Bandura. *Journal of Communication*, 28(3), p. 12-29 (<https://doi.org/10.1111/j.1460-2466.1978.tb01621.x>).

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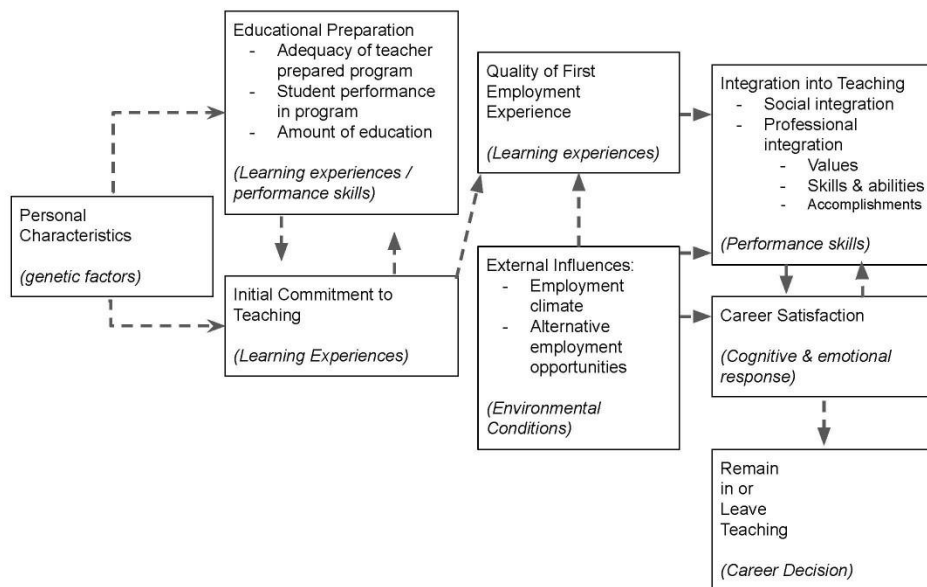
Krumboltz (1979) adapted Bandura's (1978) SLT to address career decision making even further to help provide an insight on how to deal with the limited control we have over some career experiences. This theory provided clarification on unpredictable social factors, chance

events, and environmental factors that can influence individuals and their career choices (Krumboltz,1979).

Furthering the advancements from the above authors, Chapman (1983) applied the Social Learning Theory of Career Decision-Making to the teacher education profession. This model can be seen below in Figure 2. This model takes a specific look at explaining teacher retention and attrition of novice teachers (Chapman, 1983). It posits that teacher retention is a mix of six characteristics: gender/age, educational preparation, initial commitment to the profession, quality of the first employment experience, the professional and social entrance into teaching, and the accomplishments/external influences (Chapman, 1983).

**Figure 2**

*Chapman's Model of Teacher Retention (1983)*



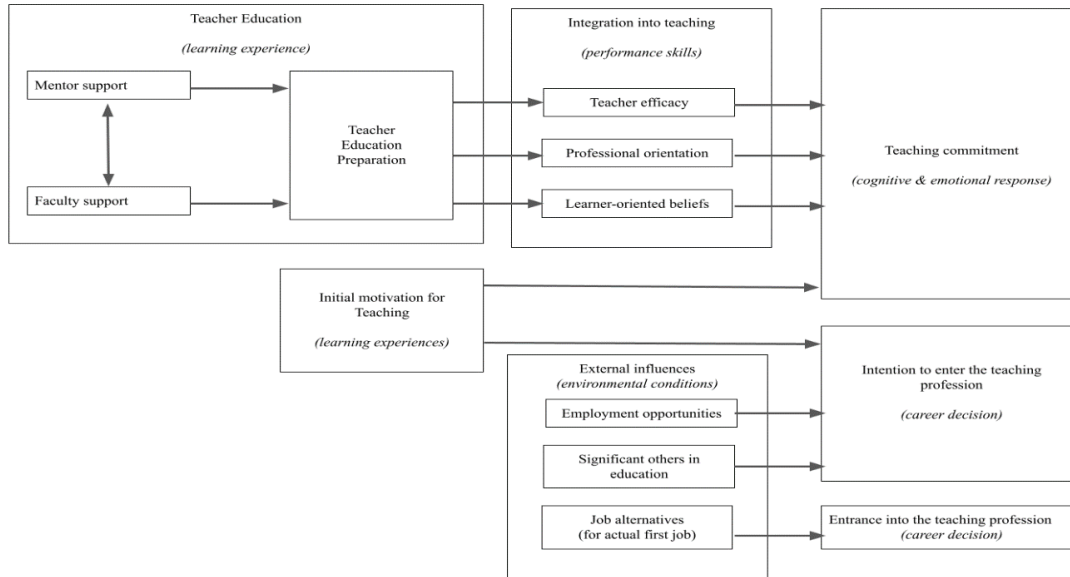
Adapted from “A Context for Career Decision Making” by Warren Chapman. *Educational Testing Service Research Report Series*, 1983(1), p 47 (<https://doi.org/10.1002/j.2330-8516.1983.tb00013.x>).

Mitchell and Krumboltz (1996) adapted the Krumboltz model (1979) to address career decision making. The adapted model identifies four components that come together in various aspects when one begins to make a career decision: genetic factors, learning experiences, performance skills, and environmental conditions (Mitchel & Krumbolts, 1996). The interaction of each of these component's affects how and why someone ultimately decides what they want to pursue as a career. This learning theory considers and explains how educational and vocational tendencies are formed.

Figure 3 below shows how Rots et al. (2010) built on Chapman’s model to examine why individuals enter the teaching profession following the graduation of a teaching program. The new model was created to explain the relationship between teacher education variables as mentioned in the Chapman (1983) model and the individual’s overall intent to enter the teaching profession.

**Figure 3**

*Rots et al. (2010) Model of Teacher Education and the Choice to Enter the Teaching Profession*



Adapted from “Teacher Education and the Choice to Enter the Teaching Profession: A perspective study” by Rots et al. *Journal of Teaching and Teacher Education*, 26(8), p 1621 (10.1016/j.tate.2010.06.013). Copyright by the 2010 Elsevier Ltd.

Teacher retention and attrition is a key topic of conversation in the world of education. The framework that Bandura (1978), Mitchell and Krumboltz (1996), Chapman (1983), and Rots et al. (2010) created allows us to more completely describe why individuals chose to teach SBAE, even when their background may not include experience as a SBAE student. By specifically looking at Rots et al. (2010) and the model of teacher education and the choice to enter the teaching profession, we can evaluate why individuals not only enter their chosen career but can take it a step further to determine why an individual entered the education profession specifically. More than a decade later, the model of teacher education and the choice to enter the



teaching profession has proven to be a useful tool to describe why an individual opts to enter the teaching profession.

### **Factors Influencing Individuals to Enter the Teaching Profession**

As students near the end of their high school career, the pressure to choose a career path is often felt from parent, teachers, and counselors. Since this decision is so challenging, it is important that young adults weigh all careers that might spark an interest. Teaching plays a crucial role in preparing future generations, and it is essential that when hiring teachers, school districts find not only the best candidate for their school and the subject but also someone that is interested in teaching for the long haul (Balyer & Ozcan, 2014).

According to Ryan & Deci (2000), three different forms of motives for choosing a career in teacher education are extrinsic, intrinsic, and altruistic motives. Extrinsic motivations involve aspects not related to the work done in the classroom but rather aspects such as salary, status, and the working conditions teachers are presented with (Ryan & Deci, 2000). Intrinsic motives revolve around the meaning for teaching and the passion an individual brings to the table for education including expertise and subject knowledge. Further, reasons for doing an activity based on the satisfaction that the individual gets from doing the activity are addressed (Ryan & Deci, 2000). Chesnut and Burley (2015) found passion for teaching, love for the specific subject material, and opportunity to allow the next generation to express their creative abilities were all intrinsic motives for becoming a teacher. Altruistic motives relate to the perceptions of teaching as a valuable and important profession and the desire to make an impact on a student's life and the community around the teacher (Azman 2013; Watt et al. 2012). From the FIT-Choice Model, Watt and Richardson (2007) described altruistic motivations as a social utility value to why

someone would choose education as their profession. Deciding to contribute to society, helping the future of our youth, and being a role model for future generations of our society have been identified as altruistic motivations for choosing education as a career (Watt & Richardson, 2007).

In another study, Pop and Turner (2009) identified alternative groups of motives describing why individuals decided to enter the education field including identity, beliefs, opportunities, and emotions. All of these are thought to contribute to the root of determining why a pre-service teacher candidate decides to teach in the classroom. Identity relates to the willingness to help children, their love for the subject, individual experiences, and reasons related to various stages in the individuals' lives. Beliefs are correlated to how an individual views teaching, and education based on viewpoints from family, friends, and the media. Opportunities are related to the options that everyone has in their life, the opportunity to enter a family business, a different career route, or the pursuit of a career in an adjacent education career field such as being a counselor or principal. The final factor that they noted in the study was the individuals' emotional connection to including both their positive and negative feelings (Pop & Turner, 2009). This study allowed individuals to examine and understand at a greater level why individuals decide to enter the classroom as a general education teacher.

Another study focused specifically on SBAE has found that key people can hold a strong influence on what someone decides to do with their future career. Friends, family, and many former teachers have been identified as primary influences on choosing a career in education (Hayes, 1990; Hillman, 1994; Reid & Caudwell, 1997). Park and Rudd (2005) found that secondary agriculture teachers influence a students' decision on future career choice through their actions, comments, and classroom instruction. Positive and encouraging comments and actions from former teachers are a huge reason why individuals will decide to enter SBAE. Additionally,

earlier studies found that students who were directly involved in the National FFA Organization and SAE activities had a higher likelihood of choosing a career in SBAE following high school (Cole, 1984; Miller et al., 1984). More recently, participation in FFA, having an active SAE, and agricultural education classes were found to be directly correlated to students' attitudes about their future ability to teach agriculture (Lawver & Torres, 2012). Further evidence from the study reports that many students who enter a college agriculture teacher licensure program were once students in a SBAE (Lawver & Torres, 2012).

Ingram et al. (2018) noted five themes describing why individuals pursue careers in SBAE. The first theme, socializer influences, further discusses key individuals that influenced the researchers' participants to enter the SBAE teacher profession. Not only can the desire to teach come from within oneself, but individuals in one's life can be largely motivating variables as to why or how one decides on a career choice (Ingram et al., 2018). The second theme Ingram et al. (2018) found included social values. Individuals that entered the SBAE teacher profession have a strong desire to help others. Participants in the study conveyed how becoming an agriculture teacher meant that they were exerting a positive influence in the lives of students (Ingram et al., 2018). The third theme Ingram et al. (2018) noted in their research was the overall passion for agriculture. This theme highlighted that all individuals in the study had a passion for the agriculture industry and a desire to share their passion with others. The fourth theme illustrated how participants felt a career in SBAE aligned with their personal values (Ingram et al., 2018). Individuals felt that their personal values such as family life, hobbies, etc. would be met through a career in SBAE. The fifth and final theme found in this study was agricultural education factors. This theme was then broken down further into five subthemes; ag teacher encouragement, FFA event participation, self-efficacy through a qualitative program, and post

high school opportunities. This theme stems from how individuals perceived the profession and in this specific study participants looked back at their time in SBAE as a motivating factor to enter the profession (Ingram et al., 2018).

### **Teacher Supply and Demand**

Will (2022) stated, teacher shortages can be directly related to and driven by the falling number of individuals who are enrolled in teacher preparation programs. Not only are fewer individuals entering teacher preparation programs, but many current educators are leaving the profession each year (Will, 2022). The United States Department of Education (2022) found 41 states and D.C. reported teacher shortages in at least one grade level or subject area.

Haynes (2014) estimated around half a million teachers or more would leave the profession each year. Another study found 41% of all educators will leave the teaching profession for a new career within the first five years in the classroom (Ingersoll et al., 2014). The National Educators Association (NEA) conducted a survey that found 55% of teachers are anticipating leaving teaching earlier than they had originally planned (Walker, 2022). Until education as a whole finds a new way to draw in and retain individuals, this number will continue to grow. Not only does teacher retention affect school districts, but it also has a negative effect on students, making it a problem that is hard pressed for a solution. Ronfeldt et al. (2012) noted that students' achievement is tied in with teacher attrition and when students have a teacher leave, they are negatively affected and their academic performance suffers (Ronfeldt et al., 2012).

Data from the Economic Policy Institute (EPI) suggests, the teacher shortage in schools could reach 200,000 by the year 2025 up from 110,000 in 2018 (Garcia & Weiss, 2019). There

are several factors causing the rise in teacher vacancies including but not limited to; pay, lack of support, ever-changing curriculum, working conditions, class sizes, and the long hours outside of their original contract (Smith et al., 2018). A recent report from the Foundation for Economic Education (FEE) indicated the national teacher shortage will cause a decline in educational standards (Boyce, 2019). Further, principals face a shortage of highly qualified teachers; this means they are forced to hire teachers trained in another field or grade or use unqualified substitute teachers (Boyce, 2019). In the end, students will be taught by teachers who lack the specific skills required to be able to create engaging and educational lessons and activities (Boyce, 2019).

### **The SBAE Teacher Shortage**

In the field of agricultural education, the national shortage of teachers is a huge concern to individuals in the profession as well as school administrators who struggle to fill their SBAE teacher positions. Just four years ago, the National Agriculture Education Supply and Demand Study found that there were 1,476 openings, but only 772 eligible graduates nationally to fill these positions (Smith et al. 2018). This study illustrates the magnitude of the SBAE teacher shortage with nearly half of positions left unfilled each year. Additionally, 26.2% of the graduates that had graduated from an approved licensure program in agriculture education did not choose to teach SBAE (Smith et al., 2018). Further compounding the shortage, 702 agricultural educators left their classrooms in the 2016-2017 school year (Smith et al., 2018). Reasons varied but included new employment in the business/industry, extension work, going back to the family farm, moving up to administration, or deciding to continue their education. With a shortfall of individuals to fill openings, SBAE has looked into alternative ways to license

teachers for the classroom and data suggests that 24 percent of new hires in SBAE enter as a non-licensed or alternatively licensed teacher (Smith et al., 2018). This shortage of qualified and licensed agricultural education could lead to a shortage of students interested in a career in agricultural education or related industries, where a shortage of qualified workers already exists (Goecker et al., 2015).

Researchers have suggested that agricultural educators are generally satisfied with their careers but decide to leave the classroom for one or more reasons related to working conditions, poor compensation, employment factors, or personal/family reasons (Solomonson et al., 2018; Tippens, et al., 2013). One common reason cited for leaving is that the time required for both novice and experienced teachers to create a well-rounded program tends to require longer than a 40-hour workweek (Croom et al. 2011). With fear of not being able to balance the work of an agriculture teacher and still have a family life, many prospective teachers are not entering the classroom, due to real and perceived expectations (Osborne, 1992). The parts of one's life that the profession may be taking away from due to extended work time could include ones significant other, spouse, children, friends, and extended family (Lawver & Torres, 2012).

The second common reason teachers leave the profession is due to working conditions. Working conditions include but are not limited to; administrative support, student demographics and behavior, school environment, and job expectations (Solomonson et al., 2018; Tippens, et al., 2013). A study from Osborne suggests that the agricultural education profession "literally devours its young" (1992, p.3). Lack of support from school administration is a huge aspect as to why teachers decide to either leave the current school they are teaching at or leave the profession indefinitely due to not wanting to have to deal with the issues that come along with a non-supportive administration. Many principals have less experience with agricultural education

programs as schools and communities move further from the rural setting and connections to the agriculture industry become scarce and closer to a more urban school setting (Rayfield & Wilson, 2009).

Finally, many SBAE teachers leave the profession due to poor compensation (Solomonson et al., 2018). When it comes to agriculture education, which is a huge component of many public-schools, compensation is a huge concern (Eck & Edwards, 2019). Allegretto, Corcoran, and Mishel (2008) found the average full-time public-school teacher was making approximately 75% of what other college graduates with similar degree credentials were making. While not specific to SBAE, it can infer that since SBAE teachers are leaving the profession due largely to poor compensation similar to why other content area teachers leave. There are nearly 12,000 secondary and two-year postsecondary agriculture teachers and it is estimated that annually contract hours exceed by 10 million hours (Eck & Edwards, 2019). This means that teachers across the United States in SBAE are spending more time working and at school than their contracts compensate for. Even with stipends for FFA and extended contracts, many SBAE teachers are still working far more hours than they are being compensated for. Teaching agriculture is a career, but in more recent times the perception has shifted and is seen more as a lifestyle (Beuhler, 2009).

### **The Illinois SBAE Teacher Shortage**

The SBAE teacher shortage that puts a burden on Illinois schools is something that SBAE has dealt with for decades. When one looks at SBAE in the last five years, annually there have been 81 agriculture teacher openings in the state of Illinois and right around 24 Illinois graduates from an Agricultural Education teacher licensure program per year, to fill these positions (Stires,

2020). Although there are on average 24 Illinois graduates each year that does not mean that all of them accept an Illinois SBAE teaching position. About forty percent of those candidates in Illinois that graduate with a degree in agricultural teacher education find themselves continuing to graduate school or applying for a higher-paying profession in the agriculture industry that is not teaching (Stiers, 2020).

Specifically, a study done by Solomonson et al. (2019) looked to find the reasons why individuals left teaching. This study found that in Illinois teachers left the profession due to two major reasons. (1) “Unrealized expectations result in personal conflict when a teacher does not fulfill their idealized vision of a quality agricultural education program” and (2) “Belief that being an excellent agriculture teacher and having a satisfying personal life are incompatible goals” (Solomonson et al., 2019. p.122-123) When one looks at Illinois, specific reasons for leaving it comes down to the unrealistic expectation that comes with being a SBAE teacher. One does not realize how much of a time commitment this profession is until one is fully immersed in it. Individuals may start out being able to commit all of their time to their programs, but as individuals grow, start a family, and have other expectations for their life, it soon becomes a tossup on what they choose to do, and most end up choosing their family.

Currently SBAE has a few ways that they are combating the shortage of agricultural education teachers in the state of Illinois; college licensure programs and provisional licenses. College licensure programs are not meeting the needs created by high schools across the state, so the Illinois State Board of Education created a way for individuals who are passionate about teaching agriculture but may have not gone through a traditional education licensure program in college. For this provisional license, the individual must have 8,000 documented hours of work experience in the skill that will be taught, submit an ISBE form online, and at the time of



submitting the application the individual must have a written letter from the school district interested in hiring them (Illinois State Board of Education, 2022a). ISBE is not afraid to license individuals who provide the necessary documents for licensure, but they want to make sure that the school has exhausted all other means of hiring prior to giving a provisional license out (Illinois State Board of Education, 2022a).

Recruitment and retention have been an issue that general education departments and SBAE have been fighting for centuries. Illinois SBAE has been looking for ways to recruit individuals interested in a lifelong career in education and the need has been far higher than the number of graduate's state schools can produce. The Illinois State Board of Education (ISBE), along with many of their allies, are attempting to combat this teacher shortage in a few diverse ways. First, making grants available for current educators to help compensate for their time. SBAE is putting their best efforts forward to try and keep the teachers that they currently have and incentivize new individuals to enter the career. The main way they are doing this in Illinois is through the Three Circle Grant, this grant allocates funds to help schools make agriculture teachers' salaries as close to twelve months as they can. This grant was put into place to help school districts pay for an additional 400 hours of pay for the SBAE teacher by paying 50% of this amount (Illinois Ag Education & FFA, 2020).

The next way that ISBE is trying to get individuals into teaching and stay in the profession is by supplying the opportunity for an additional extended contract through the Three Circles Grant. Established by the Public Act 099-0826 and funded through the ISBE budget, funding has been set aside in the Agricultural Education line to support this grant (Illinois Ag Education & FFA, 2020). According to the Illinois Agricultural Education website, the grant will partner with the school district if they will agree to pay for 50% of an additional 400 hours

outside of the teachers already assigned teaching duties. This means that the school district must be willing to match the other 50% of those 400 hours for the grant to be put into place at a given school district (Illinois Ag Education & FFA, 2020). With this grant, the average SBAE teacher contract length in the state of Illinois has increased to a full 11 months (Illinois Ag Education & FFA, 2020). This allows teachers to be able to be compensated for their extra time spent working past their original contracted hours.

### **Nontraditional Recruitment and Retention Techniques**

Kantrovich (2010) found that the shortage of teachers in SBAE is not a new problem and has been an issue for at least the last four decades. Dating back to 1967, Wooden stated that the continued shortage of vocational and agriculture teachers could become a crisis (Wooden, 1967). In 2022, both Kantrovich and Wooden were right that the SBAE teacher shortage is not a new development and has become a crisis. The future of the SBAE teacher shortage will require effort from two different sides: the recruitment of more individuals into the profession and the retention of those teachers within the profession. To successfully close the gap, taking a step back to look at how the profession can recruit more and new individuals into SBAE is going to be a necessity.

One-way SBAE and ISBE have tried to combat the teacher shortage is by making a provisional license an option. A provisional license, also known as a license with stipulations, is a license given out by the state once certain criteria is met by an individual who is interested in becoming an SBAE teacher but did without having gone through a proper agriculture teacher licensure program. Requirements for a provisional license include documentation of a minimum of 8,000 hours of work experience in the skill field that the individual will be teaching,

application online through the Illinois State Board of Education (ISBE), and submission of work experience. The only limitation this license comes with is the individual will need a written letter from the school district that they are applying to in order to confirm that there is no teacher holding a Professional Educator License (PEL) also applying for the same job. This will allow the individual to apply for and obtain the provisional license that will be valid for five years (Illinois State Board of Education, 2022a.).

Adversely, the ways that the profession can keep agriculture teachers in the teaching and ensure that they make it a lifetime career would be through professional development. A study from Ingersoll, Merrill, and Stuckey (2014) reported that novice teachers who have had training in various teaching methods and pedagogy are far more likely to remain in the profession than those teachers who have had far less training. Professional development and teacher mentoring programs are a significant reason why novice teachers remain in the profession past the initial five years. Novice teachers can be so overwhelmed from lesson planning, FFA events, practices, and everything that goes into being an agriculture teacher that they decide to leave the career and opt for a career that has better hours and less stress.

The next way that could be the solution to filling the many vacancies within the agricultural education could be through individuals who do not have any prior experience in agriculture but find it interesting. According to the National Association of Agricultural Educators (NAAE), the Teach Ag Mission is “To raise awareness of the need to recruit and retain high quality and diverse agriculture teachers, encourage others to consider a career teaching agriculture, and celebrate the positive contributions that agriculture teachers make in our schools and communities” (National Association of Agricultural Educators, n.d. para. 1). By

reaching out to individuals who have yet to be immersed in the agriculture industries, we will diversify the teachers within the field.

A study conducted by Marx et al. (2017) identified reasons why individuals with no prior SBAE experience opt to teach. Marx et al. (2017) identified that these individuals had passion for teaching youth along with a passion for SBAE developed through their local 4H organization. Another identifier was that these individuals felt welcomed by another ag teacher or teachers already in the profession. Knowing that they had support from others in the profession was a huge positive mark from incoming teachers with no prior SBAE experience. A third identifier that was examined was the fact that these individuals knew they wanted to be a teacher but were struggling to identify which subject area that they wanted to teach in (Marx et al., 2017) Overall, this study investigated why these “non-traditional” individuals with no prior SBAE knowledge would opt to enter the SBAE teaching profession. By identifying these reasons along with others, the profession can adapt these and start to find ways to get into contact with and introduce SBAE to other individuals who may be in the same situation as participants from the Marx et al. (2017) study.

While this is a national issue that the profession is facing, Solomonson et al. (2019) looked at ways that the state of Illinois could work to not only help solve the SBAE issue by finding new teachers but looking at ways that the profession can retain the teachers they already have. The study performed by Solomonson et al. (2019) specifically noted that the word “support” came up quite often in the study. But it was noted that the types of support that participants needed varied from curriculum support, support with more prep time, or support within the school that the individual is employed at. Furthermore, individuals involved in this study stated the need for “a philosophical shift toward a more sustainable model and system of

agricultural education” (Solomonson et al., 2019, p.124). This study recommended that agricultural education policymakers and other leaders be aware of the added expectations and pressures that they place on teachers (Solomonson et al., 2019). By modifying essential deadlines and combining multiple events to reduce travel time and time spent away from their homes, families, and other obligations (Solomonson et al., 2019).

### **Chapter Summary**

This chapter discussed the findings and research behind the severe teacher shortage that the nation is facing. It has been determined that there are several reasons behind the shortage, but administration support and compensation are among the top reasons why teachers are leaving the profession at alarming rates in all subject areas. The profession is currently facing such a shortage of agriculture teachers that is causing schools districts to have to hire individuals who did not go through the proper teacher licensure programs or completely shut down the agriculture/FFA program at the school if they cannot find someone to fill the vacancy. With agriculture being a vital part of everyday life, closing programs is only going to harm the students overall. Therefore, individuals are attempting to find every way to bring fresh faces into SBAE classrooms. With the future generations of agriculturalists sitting in secondary agriculture classrooms, the last thing the profession wants to do is shut down the opportunities that SBAE and FFA offer students.

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# CHAPTER III: FILLING THE GAP: FACTORS MOTIVATING INDIVIDUALS WITH NO SCHOOL-BASED AGRICULTURAL EDUCATION BACKGROUND TO ENTER THE PROFESSION

## **Introduction**

Teacher recruitment and retention has been deemed an issue across all disciplines and grade-levels in education. The UNESCO Institute for Statistics (2016) stated that by 2030, the world will need to recruit almost 69 million new teachers. Not only are fewer individuals entering teacher preparation programs, but many current educators are leaving the profession each year before becoming retirement eligible (Will, 2022). In the United States, it is estimated that nearly half of all new teachers leave the profession within five years of entering the classroom (Sims & Jerrim, 2020). Collectively, education is seeing a shortage of teachers who want to enter and stay in the profession, and school-based agricultural education (SBAE) is only contributing to the problem. For decades we have had a national shortage of qualified agriculture teachers in the United States (Camp et al., 2002; Foster et al., 2020; Kantrovich, 2010).

Researchers have suggested agriculture teachers are generally satisfied with their careers but decide to leave the profession for one or more reasons related to working conditions, poor compensation, employment factors, or personal reasons (Solomonson et al., 2018; Tippens et al., 2013). Further, one commonly cited reason for leaving the SBAE profession is the extensive hours agriculture teachers work (Croom et al., 2011). Researchers have shown agriculture teachers often work well over a traditional 40-hour workweek (Hainline et al., 2015; Murray et al., 2011; Sorensen et al., 2016) to complete their required duties. The additional hours agriculture teachers work is often taken away from time spent with one's significant other,

spouse, children, friends, and extended family (Lawver & Torres, 2012). With the fear of being unable to balance both career and family life, many prospective teachers do not enter the profession due to real or perceived work expectations (Osborne, 1992).

Mirroring national trends, a preliminary report from the Illinois State Board of Education (ISBE) indicated there were 2,434.8 unfilled teaching positions in the state of Illinois for 2022 (Illinois State Board of Education, 2022.). The challenge to fill vacancies is something Illinois SBAE has dealt with for decades. According to the Illinois Agriculture Education Annual Report (2021), in 2020 there were 84 open SBAE teaching positions and only 36 graduates from university teacher education programs, forcing many programs to hire provisional teachers or shut down completely (Illinois Ag Ed Annual Report, 2021). Simply stated, Illinois is not producing enough graduates from their agricultural education teacher license programs to fill the vacancies posted each year (Andrews & Marzano, 2021). To solve this issue, it is essential for SBAE stakeholders in Illinois to search for additional teaching candidates beyond the traditional candidate pool. This includes recruiting those with no SBAE background. This population may be a potential solution to filling the expanding supply and demand employment gap the profession has been experiencing for decades.

Traditionally, many students who enter an agricultural education licensure program at the university level are students who participated in SBAE and the National FFA Organization during their K-12<sup>th</sup> grade education (Ingram et al., 2018). Researchers have found that students who were directly involved in school-based agricultural education classes, the National FFA Organization, and having an active Supervised Agricultural Experience (SAE) project had a higher likelihood of choosing a career in SBAE (Cole, 1984; Miller et al., 1984). These associations are also highly correlated to the students' attitudes about their future ability to teach

agriculture (Lawver & Torres, 2012). Further, most students who enter a college agriculture teacher licensure program were once students in SBAE (Lawver & Torres, 2012). However, there have been a number of agriculture teachers that entered the SBAE profession with no such background (Marx et al., 2017).

Marx et al. (2017) examined why preservice teachers with no prior SBAE background decided to enter the SBAE teaching profession. Participants of that study listed prior teaching experience (both formal and informal), passion for working with youth, positive encouragements from current SBAE teachers, and the self-perception of a future in SBAE as reasons why they decided to teach SBAE without prior agriculture experience (Marx et al. 2017). While similar in nature, our study was designed to examine the factors that influenced current Illinois agriculture teachers with no SBAE background to enter the profession. By identifying these factors, the industry hopes to target a new group of individuals that could help fill the vacant SBAE teacher positions in Illinois that are available every year.

### **Theoretical and Conceptual Framework**

The framework for our study evolved from Bandura's (1978) Social Learning Theory (SLT) which provided us with a theoretical baseline to determine why individuals enter the teaching profession. Bandura's (1978) SLT suggested learning is a cognitive process that primarily takes place through observation, a substantial part of how educators learn. Bandura's (1978) SLT suggested that learning is the constant interaction of environmental, behavioral, and cognitive factors. Environmental factors include influences that surround the individual, such as how others act, what social ring they associate with, expectations others place on them, feedback they receive from peers and mentors, and the values of others around the individual (Bandura,

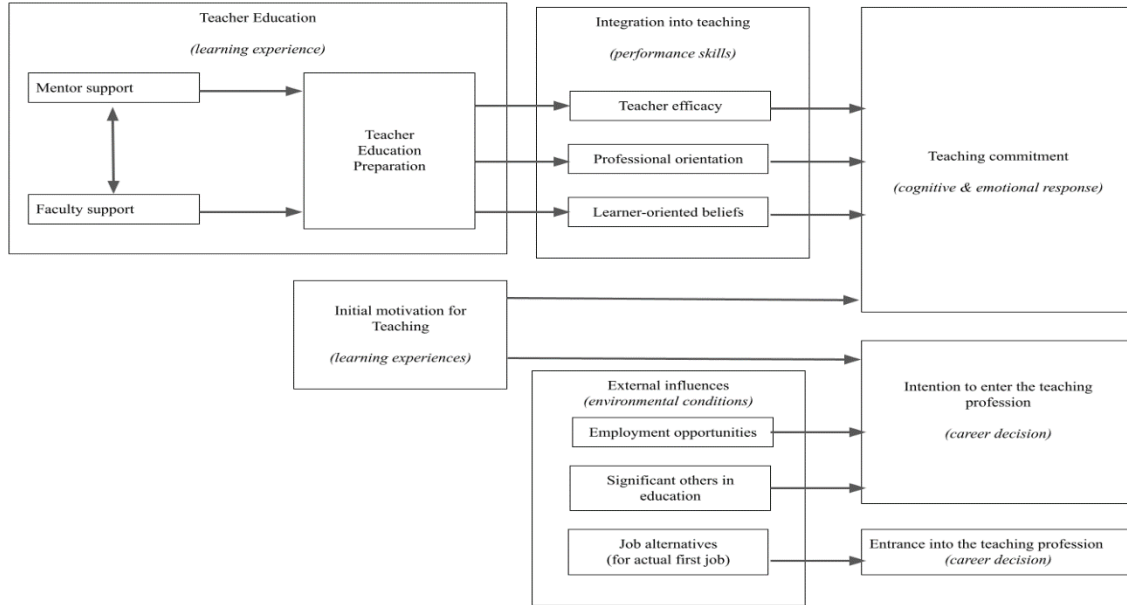
1978). Behavioral factors relate to oneself and how they respond and react to individual situations. This can differ based on the individual's skill level, amount of practice, as well as the individual's self-efficacy (Bandura, 1978). The third set of factors of SLT, cognitive factors, are the individual's beliefs, level of knowledge, and attitude all which can affect their ability to make decisions and learn efficiently and effectively (Bandura, 1978).

Krumboltz (1979) adapted Bandura's (1978) SLT to address career decision making. This theory provided clarification on unpredictable social factors, chance events, and environmental factors that may influence individuals and their career choices (Krumboltz, 1979). Chapman (1983) applied these theories to the education profession. Chapman's model took a specific look at explaining teacher retention and attrition of teachers (Chapman, 1983). It posits that teacher retention is a mix of six characteristics: gender/age, educational preparation, initial commitment to the profession, quality of the first employment experience, the professional and social entrance into teaching, and the accomplishments/external influences (Chapman, 1983).

Rots et al. (2010) built on Chapman's model and the SLT of career decisions made by examining why individuals enter the teaching profession following the graduation of a teacher education program (see Figure 1). The new model was created to explain the relationship between teacher education variables as mentioned in the Chapman (1983) model and the individual's overall intent to enter the teaching profession. The theoretical and conceptual framework for this research helped create the questions used during each participant's semi-structured interview. These questions allowed us to determine specific environmental influences such as their background growing up, skills they possessed, and opportunities they had been given prior to deciding on a career in agricultural education.

**Figure 1**

*Rots et al. (2010) Model of Teacher Education and the Choice to Enter the Teaching Profession*



Adapted from “Teacher Education and the Choice to Enter the Teaching Profession: A perspective study” by Rots et al. *Journal of Teaching and Teacher Education*, 26(8), p 1621 (10.1016/j.tate.2010.06.013). Copyright by the 2010 Elsevier Ltd.

### **Purpose and Objectives**

The purpose of this qualitative study was to examine factors that influence current SBAE teachers with no SBAE background to major in and pursue a career in the agricultural education profession. The findings from this research will be useful in developing agriculture teacher recruitment and retention plans with the goal of narrowing the employment gap that has developed from the shortage of qualified SBAE teachers. Specific objectives of this study include:



1. Identify factors that motivate individuals that never experienced SBAE as a student, to major in and pursue a career in agricultural education.
2. Describe the advantages and disadvantages of an agriculture teacher not having participated in a SBAE program as a student.
3. Identify strategies to recruit potential teachers that did not participate in a SBAE program at the secondary level.

The need for this study was emphasized in the American Association for Agricultural Education's (AAAE) National Research Agenda, Research Priority 3: Sufficient Scientific and Professional Workforce that Addresses the Challenges of the 21st Century (Roberts et al., 2016). Specifically, the study investigated the question "What methods, models, and practices are effective in recruiting agricultural leadership, education, and communication practitioners and supporting their success at all stages of their careers?" (Stripling & Ricketts, 2016, p. 31).

### **Methodology**

A phenomenology was deemed the appropriate design for our qualitative research study as it sought to capture the "meaning for several individuals of their lived experiences of a concept or a phenomenon" (Creswell, 2007, p. 57). The phenomenon addressed were the factors influencing an individual with no SBAE background to enter the SBAE teaching profession. Of the two types of phenomenological approaches to inquiry (hermeneutical and transcendental), a transcendental phenomenology was used. Transcendental phenomenology requires researchers to suspend past knowledge and experiences to understand the phenomenon at a much deeper level (Creswell, 2007). Further, transcendental implies the individuals conducting the research should take a stand "in which everything is perceived freshly, as if for the first time" while they are

researching the phenome, interviewing participants, and analyzing the data collected (Moustakas, 1994, p. 34). Additionally, our research team incorporated features observed in almost all phenomenological studies, as suggested by Moustakas (1994) and Van Manen (1990), two authorities on the topic. These features included an emphasis on the phenomenon, interviewing a group of individuals who have all experienced the phenomenon, incorporating bracketing, data analysis that flows from narrow topics to a broader topic, and ends with a discussion on the overall experience (Creswell, 2013).

### **Participants**

Polkinghorne (1989) recommended researchers interview anywhere from five to 25 individuals, who have experienced the phenomenon under investigation. After gaining approval to conduct our study from the Institutional Review Board (IRB) at Illinois State University, a list of current Illinois agriculture teachers who met our participant criteria (currently teaching agriculture, possessed a traditional teaching license, and did not participate in SBAE as a student) were provided by our agricultural education state staff. Of the 18 individuals initially contacted, 10 agreed to participate in our study. Participant consent was obtained through an online Qualtrics form. Both the initial contact email and consent form can be found in the Appendix.

Participants of our study included six females and four males. Each participant lived and taught agricultural education in Illinois, completed a post-secondary bachelor's degree in agricultural education, held a traditional teaching license, and did not participate in SBAE as a student in high school. To protect their identities, each participant was given a pseudonym. A brief description was provided to give additional context of the participant's personal situation.

**Jane** grew up in the rural Northeastern part of the state where many family members were involved in the agricultural industry. While not growing up on a farm, she always knew she wanted to be a teacher. After talking with an older sister and her college roommate, who happened to be a former FFA member, agricultural education was suddenly an intriguing option for her future career path.

**Casey** grew up living with her grandparents and learning all about gardening and canning. She never considered herself part of the agricultural industry but looking back she realized she should have. During high school she found herself in the gifted program with no time for electives. She entered college as a special education major, soon to realize that was not for her. She switched her major to agricultural education after a run in with the university's program coordinator for agricultural education.

**Chloe** was from a very rural area in the state on a small horse farm. She lived in a community that highly valued agriculture but did not have a SBAE program at the high school she attended. She was a part of 4-H and would often hear how much fun others were having in their agriculture classes. She decided to combine her passion for the agricultural industry with teaching.

**Whitney** grew up in a rural area and attended a high school where only the "farm kids" took agriculture classes. Whitney felt as though she did not fit into that group since her parents sold their farm when she was younger. She opted to not take SBAE classes in high school. After spending countless summers at her grandparents' farm, she realized

that she wanted to do something in the agricultural industry. She decided to pair that longtime dream with becoming a teacher, so she found herself in agricultural education.

**Kelsey** grew up being involved heavily in 4-H and helping on her family's golf course. This is where Kelsey found her passion for the agricultural industry. Attending a catholic high school, with no SBAE program, she was not able to take agricultural courses. After first attending college with a major in human resources, Kelsey made the switch to agricultural education during her sophomore year and never looked back.

**Holly** grew up on a dairy farm and attended a rural high school that did not provide SBAE courses. Realizing that she did not want to run the family dairy farm, she took the lessons she learned through 4-H to help make her decision to become an agriculture teacher.

**Nathen** was involved in production agriculture from an early age. Between owning an orchard and a Christmas tree farm, on top of raising cattle, his passion for the agriculture industry was unwavering. Since the school he attended did not have an active SBAE program, he opted to take other classes instead. During college he was unsure of what he wanted to do. After taking a chemistry class he realized a science major was not for him, so he decided to enroll in an agricultural education course. He then realized that was what he wanted to do.

**Blake** grew up in a suburb of Chicago. Blake did not have the typical “farm kid” experience but spent summers at his cousins and grandparents' farm where he found his passion for the agricultural industry. During high school and at the beginning of college Blake was determined to become a large animal vet, but after taking a few introductory courses in agricultural education he decided to make the switch.

**Rick** grew up on a farm until the age of five when the 1980's farm crisis hit, and their family sold the farm. Fortunately for Rick, his extended family was still actively involved in production agriculture, so he was still given the opportunity to spend school breaks, weekends, and summers working on the farm. Growing up on the farm and around a family of schoolteachers, Rick decided to put the two of those passions together.

**James** grew up on a traditional Illinois grain farm. Being the youngest of four boys in his family, he realized that the small farm would not support him and his three older brothers. James attended a high school without an SBAE program. After job shadowing at a local high school with an agriculture teacher, he decided that teaching was a strong possibility for his future.

### **Data Collection and Analysis**

Creswell (2013) suggested data collection should consist of in-depth interviews with the individuals that experienced the phenomenon. During the summer of 2021, our research team conducted semi-structured interviews with the participants via Zoom. Questions were asked to determine factors influencing the participant's decision to pursue a career in agricultural education, potential advantages and disadvantages of agriculture teachers not having participated

in SBAE, and potential strategies to recruit individuals with similar backgrounds into the SBAE profession. Three agricultural education teacher educators, all former high school agriculture teachers, reviewed the research protocol and questions for validity prior to interviewing. The specific questions asked during the interviews can be found in Table 1. The additional probing questions are found within the Appendix.

**Table 1**

*Questions Used During the Semi-Structured Interviews*

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Interview Items
1. Tell me a little bit about yourself and your background growing up?
2. As a child what did you want to be when you grew up?
3. Why did you not participate in FFA/Agricultural Education in high school?
4. Were you ever involved in 4H?
5. Tell me about your college experience, did anything during your college years motivate you to pursue a career in agricultural education?
6. What was your motivation to enter agricultural education not having participated in an agricultural program yourself?
7. Do you feel that when you first started teaching that you were at an advantage or disadvantage not having been involved in an agricultural education program in high school? Explain.
8. As someone who did not participate in high school agricultural education, what can we do as a profession to recruit more individuals to pursue a career in agricultural education who were also not involved in a high school agricultural education program?

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All interviews were recorded and transcribed verbatim. Field notes were taken during each interview. All interview transcriptions and field notes were analyzed using an open-coding technique. These codes were used to reveal emerging themes based on our research objectives and interview questions. As a form of member checking, findings and initial themes were

reviewed by participants to determine if they accurately represented their experiences and attitudes.

### **Reliability and Validity**

According to Lincoln and Guba (1985), reliability and validity within qualitative studies are established through the credibility, transferability, dependability, and confirmability attained through their methods. Credibility can be achieved by the level of confidence in the researcher team and their experiences. Members of our research team have extensive experience in agricultural education totaling in excess of forty years. To determine transferability, individuals were purposively selected for the study as they met our participant criteria. To achieve a high level of dependability, guidelines and procedures were put in place and followed. These included transcribing data word-for-word after each interview, using dependable and credible sources, and having the findings reviewed. Confirmability was met through bracketing, a common method used in qualitative research whereas the researchers put aside their beliefs about the topic under investigation (Creswell, 2013).

### **Findings**

The purpose of our qualitative study was to examine factors that influenced current SBAE teachers, with no SBAE background, to major in and pursue a career in the agricultural education profession. All ten participants in our study were current Illinois SBAE teachers who never participated in SBAE during their middle and high school education. All participants had an agricultural background such as having a role on their family farm, having relatives who operate a farm, or having parents involved in some facet of the agricultural industry. Nearly all of the participants grew up in a rural community and were part of the local 4-H organization. The



participants' leading reasons for not participating in SBAE during their time in middle/high school included their school not having a SBAE program, not having room in their schedules to take a SBAE course, or the SBAE programs at their school not being active. The findings of our study are organized by common themes found within each research objective.

### **Objective 1**

Objective one sought to identify factors motivating former non-SBAE students to enter the agricultural education profession. Four themes emerged revolving around the participants' upbringing and background, experiences in college, family dynamics, and career suggestions from others.

### **Possessing an Agricultural Background**

The first theme that emerged was possessing an agricultural background. 100% of participants grew up or worked on a family farm, showing livestock, maintaining a garden, or with parents that were employed in the agriculture industry. One participant, Whitney, moved away from her grandparent's farm at a young age, but stated, "even after I moved with my family out of state, and away from my grandparent's farm, when my family would go on vacation, I would go back to the farm to spend time working there." Whitney could have easily gone on vacation with her family, but it was her decision to continue visiting the farm. This is where she found her passion for agriculture. Had it not been for those opportunities, she may have never pursued her initial major in veterinary medicine which led to her second major in agricultural education.

Another participant, Holly grew up with a background in agriculture and stated, "I grew up and worked on a dairy farm and I never had a job anywhere else until I started at the fair office." Holly knew through her experiences on the family farm and working at the fair office

how impactful the agricultural industry is to society. Rich was another participant whose childhood started on the family farm but moved away when he was around six years old. He stated, “even though my family got out of farming, a lot of my family was still involved in agriculture in the area.” Rich was fortunate enough to have the other side of his family involved in production agriculture so when he was able to visit them, he could visit the livestock and work summers on that farm.

While many of participants had a very traditional production agriculture background, Casey was not one of them. She grew up with horses and a large garden but did not see herself in agriculture. Not until recently did she ever really consider herself as someone who “grew up in the agricultural industry, looking back she realizes that her garden and having horses while not a large production farm, was still agriculture.” Blake was another participant who did not have a traditional childhood in agriculture. He stated, “my cousins got me involved in showing livestock and I met individuals who allowed me to keep my livestock at their place.” Blake further discussed that had it not been for his cousins introducing him to showing cattle and allowing him to keep his livestock at their farm. He would not have been as involved in agriculture since he grew up in the suburbs.

Most participants also grew up showing livestock and having projects in their local 4-H club and knew the benefits of being involved in an agricultural youth organization. Kelsey stated, “I was in 4-H growing up with my cousins.” Blake was also one of the participants who did not grow up on a farm, so finding somewhere for him to keep his livestock was vital to staying in 4-H. Another participant, Chloe stated, “I would hear all the others in my 4-H group talk about the fun that they were having in their Ag classes and in FFA.” While Chloe did not go to a school

that offered SBAE courses, she had a passion for agriculture and after hearing about the fun others were having in SBAE and FFA she knew she wanted to teach.

### **Taking College Agriculture Courses**

The second theme that emerged was taking college agricultural courses. Although a majority of participants grew up having an agricultural background, some did not find their way to agriculture and agricultural education until after they started college. While most participants were agriculture majors of some sort, others found their way to the agriculture department in other ways. For some it took taking an education course to find their way to agricultural education. For others it took a trip to the advising office or a run in with the agricultural education professor to find their way to agricultural education.

Casey was one who found her way to agricultural education almost by accident. Casey stated, “I was a special education major to start out college, but after one of my very first classes I realized it was not for me.” Casey decided to take a trip to her advisor but ran into one of the agricultural education professors along the way. After a brief conversation she made the switch and took an agricultural education course. After taking her first agriculture courses, Casey was hooked. She indicated, “I could not get enough; I would go to my professors and ask them for reading suggestions because I just could not get enough of the information that I was learning in my agriculture courses.”

In many situations, taking college courses may prove to have a strong impact on individuals choosing to change their major to an agricultural education licensure program at various schools. One participant that made this very clear from his own experience was Blake. Initially a pre-veterinary science major, Blake said, “I took a class on a whim because a friend of mine was also going to be in the class, and I was glad I did because it opened my eyes to

teaching as a possibility.” The course that Blake ended up taking was Youth Programs and Organizations in the agriculture department. Blake admitted, “the course was not the only thing that got me into agriculture, but also joining the livestock judging team.”

While Holly did not state specific courses that got her interested in agriculture education, she did state “I went through the classes, and I thought this was really fun, I like this and then I went on to student teach.” While Kelsey noted college classes as a point in the right career direction, she talked more about the classes that pushed her away from her original major. Kelsey stated, “I started in communications classes and my junior year made the switch to agricultural education.” Kelsey noted that with her background in agriculture growing up she knew she for sure wanted to do something within the industry it was just unclear until her junior year of college.

### **Growing up in a Family of Educators**

Growing up in a family of educators was a third theme that emerged. Several participants grew up with family members in the teaching profession. Reflecting on past family holiday events, Nathen stated, “when you watch and listen to over half of your aunts, uncles, and cousins talk about their time in the classroom, their love for the kids, and how much they enjoy teaching you start to think about whether teaching would be a profession for you.” Blake, on the other hand, realized through taking college agriculture courses that he wanted to pursue a career in agricultural education, however, another major factor that pushed him into the teaching profession was his father. Being a certified agriculture teacher himself, Blake’s father was very influential in his decision to major in agricultural education.

Another participant, James, grew up with a mom who was a school librarian/teacher and a father who was a farmer. James stated, “my mom was a school librarian/teacher and dad was a

farmer so put teacher and farmer together, you get an agriculture teacher.” James admitted that it was after a day of job shadowing with a local agriculture teacher that he realized he wanted to be an agriculture teacher himself, however, he would have never considered it without the influence of his family.

### **Career Suggestion from Others**

The fourth and final theme for objective one was career suggestions from others. When you do not know what career to pursue, you sometimes hope that someone will suggest something for you. For Holly, this happened quite often in college as her roommates would tell her “You would be really good as a teacher.” At the time Holly thought these individuals were crazy, but specified,

when you get to college you meet people who have more of an interest in things you are interested in, you find your group. Then once you discover your group, if you are coming from a small school, it exposes you to so many more things.

Holly had the opportunity to attend another university, but had she done that she may not have found her “group” that she mentioned and might not have ever gotten the career suggestion that she would make a good teacher.

Another participant who had SBAE teaching suggested to them as a career was Jane, Jane grew up on a farm and knew that she wanted to teach her whole life, but she said, “my college roommate’s friend happened to be a former FFA member and suggested that I look into ag education since I grew up on a farm and wanted to teach.” Sometimes individuals just need information and a nudge when it comes to making a career decision. Holly said, “when enough people tell you ‘You would be a great agriculture teacher’ it gets you thinking.”

## **Objective 2**

Objective two sought to identify the advantages and disadvantages participants found by not having participated in SBAE while in high school. Two themes emerged from the data collection. These themes included having pre-conceived notion of SBAE as an advantage and a lack of FFA and SAE knowledge as a disadvantage of not having participated in SBAE as a student.

### **No Pre-conceived Notions of SBAE**

One advantage identified was that participants had no pre-conceived notion of SBAE. When you become a SBAE teacher your duties involve all facets of the Three Component Model of Agricultural Education Instruction: Classroom, FFA, and SAE. Our participants knew little about these components and the responsibilities that accompany them prior to enrolling in their university agricultural education program. Many of the participants who were in 4-H noted that they heard about their friend's agricultural education experiences and knew it was something they wanted to be a part of. But participants still knew nothing specific about it. Chloe specifically mentioned,

In my 4-H club I would hear how much fun my friends were having in their agriculture courses and during their FFA activities, but I had nothing to compare it to since my private high school did not offer agriculture classes. But I knew it was something I wanted to be part of even with the lack of information.

This can many times be considered a great opportunity as they would not feel they needed to live up to certain expectations.

Blake was one that saw the lack of pre-conceived notions of SBAE as an advantage. He stated that he did not want to be just like other agriculture teachers and FFA advisors he knew.

Blake took the knowledge and skills he learned in college and throughout his student teaching semester and then kept an open mind when working with his students at his first job. By having an open mind, Blake was able to structure his class the way he felt best fit. Blake stated that this was an advantage for him because “I was able to lay the foundation for the new program that I was chartering that had not had an ag program for many years.” Blake was not the only individual that realized the lack of SBAE experience was an advantage as a new teacher.

Numerous teachers felt likewise that their lack of SBAE experience was not a total disadvantage, due to his ability to think about how all of his teachers would have handled whatever situation he found himself in. Rick stated, “I have seen lots of teachers and I have had co-teachers and almost every single one is like well Mr. Or Mrs. so and so did it so that is how they do it.” Rick looked back at all of his teachers and evaluated the good and the bad on how they accomplished things compared to some individuals who only do it one way because that is what their agriculture teacher did.

Some individuals noted that whether they felt they were at a disadvantage or not is due to another individual’s help. Jane stated, “no, I do not feel like I was at a disadvantage whatsoever, and I think that comes down to who I student taught with.” Jane felt as though her cooperating teacher set her up for success during her semester learning from them.

### **Lack of FFA and SAE Knowledge**

A disadvantage that emerged while talking with participants was their overall lack of FFA and SAE knowledge. Several of the participants felt that they did not know enough about specific SBAE programming activities, this included ones such as such as leadership training, Career Development Events (CDE’s), and Supervised Agriculture Experiences (SAE’s) when they began teaching. Reflecting back, the participants realized how much time they spent

learning about the FFA organization and implementing SAE projects. Eight of the participants stated they realized that not having been involved in a SBAE program in high school was a huge contributor to this. Kelsey, who worked in a multi-teacher SBAE program, stated, “had I not accepted a job where I could ease myself into the FFA activities, it would have been difficult jumping into something I did not know much about.” Casey stated, “I am still learning new things [about FFA and SAE] that I did not know before even years after entering the profession.”

Several participants stated that without a cooperating teacher or co-teacher to learn from, starting alone in the profession would have been difficult. Kelsey specially stated, “She [cooperating teacher] is the reason, probably why I am still teaching today. I got involved right away once I met her.” Casey was another participant who did not see her non-SBAE background as a disadvantage. Casey stated, “it [not being in SBAE] wasn’t a disadvantage because I landed in a lucky place with two established teachers.” Casey noted that because she had mentors and someone she could turn to, she was not at a disadvantage, that she could ask for help and she would get the help she needed. Jane was another participant who felt as though they had a great cooperating teacher she even stated, “no, I do not feel like I was at a disadvantage [not being in SBAE] whatsoever, and I think that comes down to who I student taught with.” Jane noted that her cooperating teacher had tried everything she could during that semester of student teaching so that when she had her own program she could jump right in and hit the ground running.

### **Objective 3**

The goal of objective three was to identify specific strategies to assist in recruiting potential teachers that did not participate in a SBAE program at the secondary level. While



several strategies were identified, one concept kept surfacing in discussion with participants. It was that individuals within SBAE must be advocates of their profession.

### **Individuals in SBAE Must be Advocates of their Profession**

With so much negativity surrounding the field of education from people both inside and outside the profession, it is imperative those of us in agricultural education to actively advocate for individuals to join the profession. Often, students do not understand that agricultural education or teaching is an option for them, especially those who did not take agriculture classes in high school. By talking to students about their career options in agricultural education, and highlighting the positives within the profession, we may be able to recruit individuals and close the employment gap we are experiencing.

Holly said, “In my classroom it comes down to a lot of ‘peer pressure’ to get students to want to consider the ag education profession following high school.” She admitted that she has students that she thinks would make great teachers but are interested in other agricultural careers. Holly would then start the conversation about ag education, focusing on the great parts of the profession, to get them to think about the possibility of agricultural education as a career.

Chloe, went on to say, “students had been talking with me at our officer retreat about what I liked and disliked about my job and had I not shared my experiences some of my students may not have realized agriculture teacher education is an option.” Her statement suggested that if we never talk about the career opportunities in agricultural education, kids may never know that option exists. Rick stated “some students will decide on a career and a major but, the thing about this is, their majors can change. By talking positively about [agricultural education], students may enter teaching who would have never thought about it before.”

For those still contemplating a major in agricultural education or another agricultural area, a quality mentor could be the key to a student's decision to pursue a teaching career. A quality mentor is going to be a great advocate for the profession and could sway one's overall career choice. James stated,

By the time my junior year of college rolled around I had already started to shop around for a new major because I was so unsure. It was not until I got into my observations and getting that mentorship that I truly realized ag education was for me.

James could have easily avoided constantly reconsidering his major had he started some sort of mentorship program or observations at the start of his educational career. Another participant, Kelsey stated,

Anyone who is even considering ag education should get the chance to talk with a mentor, about the good, bad, and everything that goes into being an ag teacher. This allows the student contemplating ag education to dig in and learn all that they can about the career.

Providing potential future teachers with a quality mentor that advocates for their career could be influential in recruiting and retaining individuals into the profession. This would also provide them with a professional network they can go to with more questions as they progress through their educational journey.

### **Discussion, Implications, and Recommendations**

This study sought to examine factors that influenced current SBAE teachers, that never experienced SBAE as a student, to major in, and pursue a career in agricultural education. Finding individuals outside of the "norm" will help the profession meet the future demand for

SBAE teachers. With the need to fill positions at an all-time high and the lack of agricultural education graduates, efforts to recruit potential SBAE teachers should focus on untapped markets and audiences. The ISBE recorded over 1,700 teaching positions across disciplines (not just SBAE) that were left unfilled in Illinois schools as they entered January 2021 (Illinois State Board of Education, 2022.).

Regarding objective one, from the findings in this study, it can be concluded that all participants had a background in agriculture. From this it can be implied the sooner youth are introduced to agriculture, whether that be through the family farm or youth organizations, the more likely a passion for agricultural education could develop. Similarly, Chesnut and Burley (2015) found passion for teaching, love for the specific subject material, and opportunity to allow the next generation to express their creative abilities were all intrinsic motives for becoming a teacher. Through Bandura's Social Learning Theory researchers were able to investigate the why our participants got into education by using their behavior, personal, and environmental factors per discussed from their background information. Passion for the agriculture industry has been noted as a strong career influence in a recent study by Marx et al. (2017).

Participants noted the importance of an agricultural background, suggesting an opportunity may exist to work with organizations like 4-H and Ag in the Classroom to further expose youth to opportunities specifically related to teaching agriculture. The importance of prior experience in agriculture has been shown to influence students' choice of college major (Donnermeyer & Kreps, 1994; Wildman & Torres, 2001).

Objective one also brought light to the idea that having family members apart of the teaching profession can influence one to become a teacher it was noted within this research study that growing up in a family of teachers influenced individuals to enter the profession. Other

studies noted similar findings such as, growing up watching family members in careers they love can often motivate someone to consider a similar career (Hayes, 1990; Hillman, 1994; Reid & Caudwell, 1997).

An advantage that emerged through objective two was the lack of preconceived notions that come with not having a background in SBAE. This implies that perhaps SBAE teachers without prior experience as a student are uniquely positioned to serve as change agents in SBAE, given their ability to approach their job free from certain biases. One disadvantage noted by participants was a lack of FFA and SAE knowledge. Contradicting what our study found, a recent study found that, participation in FFA, having an active SAE, and agricultural education classes were found to be directly correlated to students' attitudes about their future ability to teach agriculture (Lawver & Torres, 2012). While it may be implied that these individuals may have a greater knowledge to start out with, the individuals in our study were just as likely to get into SBAE without this prior knowledge. Currently, ISBE, Illinois Ag Ed, and IAVAT all host a variety of workshops and conferences and related professional development to support the needs of SBAE teachers. These findings imply that perhaps targeting more professional development specifically for preservice teachers without SBAE backgrounds would be appropriate to further build self-efficacy in these areas. Focused professional development has been noted as important in retaining SBAE teachers (Solomonson et al., 2018).

It is implied that teachers within SBAE need to make a much greater effort to talk to individuals both within their programs and to outside individuals about the SBAE profession. Currently, only individuals within a school SBAE program truly learn what a career in SBAE would be like. It can be implied that SBAE teachers should speak to general education classes and to schools in their area without SBAE programs to get the word out about what it means to

have a career in agricultural education. Like our study, another study looking at why SBAE teachers opt to get into the profession to begin with found that secondary agriculture teachers influence a students' decision on future career choice through their actions, comments, and classroom instruction (Park & Rudd, 2005). It can be implied that through objective three SBAE teachers have a strong influence on an individual going into SBAE, it can be noted that in order for more individuals to pursue a career a SBAE teacher is going to have to branch out to talk with more than just his/her own students. It can also be implied from this objective that how teachers talk about their careers is going to impact the number of individuals that choose to enter the profession. With that in mind, teachers need to make sure that not only are they telling individuals about the pros of their job, but also discussing the cons to prepare them for their career.

In conclusion the findings that emerged from participants suggest that you do not have an agricultural background to find your way into the agricultural education career field. Findings also suggest that you clearly do not have to be a part of a SBAE/FFA program or 4H group to land yourself in this career field. Across the state and nation there is a SBAE teacher shortage that needs to be addressed and clearly there are not enough students graduating from SBAE programs who want to pursue a career in the classroom. Through these participants we have gained information as to a new demographic that we can target to try and fill the shortage that has been created. SBAE teachers are leaving the field at an alarming rate, and we cannot graduate enough students from teacher licensure programs in the state of Illinois or surrounding states to fill those vacancies. Programs are shutting down and individuals who are not provisionally or professionally licensed are having to fill those spots when schools do not want to shut programs down.

From this study it is recommended that advertising agricultural education to individuals outside of those already in the SBAE classroom, a great start could be in science classrooms. If we keep only discussing SBAE with those already in the ag education classrooms we will never pull from a new pool of people, by branching out and informing others we may be able to spark new interest. The second recommendation for the profession is that organizations with deep roots in education like ISBE and IAVAT should reach out to middle and high school guidance counselors that work in schools with no SBAE program. The counselors at these schools may be able to talk with students and if they are interested in SBAE or have a background in agriculture can point them in the direction of a current ag teacher who they could job shadow to learn more about a potential career in SBAE.

For teacher preparation programs it is recommended that teacher prep programs branch out and talk to students outside of those who are on track for agricultural education. Students may have an interest in elementary education or special education, but they may also have an interest in SBAE. By putting the programs SBAE teacher prep program in their mind you may find that some will switch their paths. The second recommendation for teacher prep programs is that teacher prep programs begin attending college/career fairs at schools that do not have SBAE as a course option.

For future research it is recommended that a study is done with a larger audience of participants to gain a better understanding to see if the themes found continue. It is also recommended that states outside of Illinois determine if the common themes found in this study can be found across the United States.

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## CHAPTER IV: GENERAL CONCLUSIONS

The purpose of this study was to examine factors that influenced current SBAE teachers, that never experienced SBAE as a student, to major in and pursue a career in agricultural education. This study resulted in chapter three, a journal article, that analyzed the common themes that were found among the ten individual's interviews. This chapter will provide conclusions, recommendations, and implications found in the journal article. The results from this research and recommendations from this study are limited to this population and should be applied with caution to populations outside of this study. Results are also only specific to the state of Illinois, while they can be assumed to be similar to surrounding states, we cannot be certain, caution should be used when generalizing results for other states is recommended.

According to Cross (2017), the Teacher Shortage Area Nationwide List identifies a long list of teacher shortages across a wide variety of fields. Some education fields, including agricultural education, have been on this list year after year. In order to get off this list, SBAE must determine ways to fill the positions that open and without finding new ways to fill these positions and new individuals to enter SBAE we will remain on this list for many years to come.

Numerous studies indicate teacher attrition and retention are common problems in almost all hallways of a school, we have teachers leaving after their first, second, fifth, or sometimes even after ten or more years of being in the profession (Simms & Jerrim, 2020). Finding individuals outside the normal target audience is needed to help SBAE "fill the gap" created by teachers leaving the profession. It is very difficult to find individuals to fill SBAE vacancies, and there are not enough graduates from teacher preparation programs who hold a PEL in SBAE to take over new programs, fill vacancies, and add teachers to already established programs to

create multi-teacher programs. While this is a perplexing task, it is not impossible, due to college prep programs and help from state programs dedicated to the future of agricultural education, there are new ways that the profession can fill the vacancies that are created each year.

The need to fill positions is at an all-time high and the number of graduating individuals with a PEL and a degree in ag education have not kept up with demand (Illinois Agricultural Education Annual Report, 2021). Illinois State Board of Education recorded that there were 1,704 teaching positions across the disciplines (not just ag education) that were left unfilled as Illinois schools as they entered the second half of the 2020-2021 school year (Illinois State Board of Education, 2022). According to the 2021 AFNR Education Report, there were 84 vacancies with only 36 graduates with ag education degrees (Illinois Agricultural Education Annual Report, 2021). The gap between the number of openings and graduates is further widened when not all candidates who earn a PEL choose to enter the teaching profession.

### **Research Objective One – Identify Factors that Motivate Individuals that Never Experienced SBAE as a Student, to Major in and Pursue a Career in Agricultural Education**

#### **Summary of Findings**

Objective one sought to identify factors motivating former non-SBAE students to enter the agricultural education profession. Four themes emerged revolving around the participants' upbringing and background, experiences in college, family dynamics, and career suggestions from others. The questions asked to breakdown each individual's cognitive, environmental, and behavioral factors that motivated their SBAE career choice came from Bandura's Social Learning Theory (1978). Through this framework researchers, were able to dig into the

individual factors that motivated participants. This study concluded that all participants possessed a variety of agricultural backgrounds. A group of participants from this study also noted their motives for entering a career in SBAE came from an experience in college, these experiences noted included taking a course that was not for them, causing a change in major, having a course suggested to them as an elective, and talking with agricultural education professors and as a result was introduced to the SBAE profession. This objective also found that family dynamics played a large role in some participant's career choices. One participant grew up with a SBAE teacher as a father and even though did not take SBAE courses was still interested in the career as a result of watching their father do it for more than twenty years. The final motive this objective found was the motives that came from career suggestions from teachers, friends, peers, professors, or others in an individual's life.

## **Conclusions**

The first objective of this study was to identify factors that motivate non-SBAE students to enter the agricultural education profession. From the findings in this study, it can be concluded that all participants had a background in agriculture. The backgrounds varied from large scale production agriculture, agritourism, to maintaining a garden. This conclusion is consistent with the findings from Marx et al. (2017) who noted that a background in agriculture was an influence on individuals entering the SBAE profession. It was also concluded that an individual's experiences in college had an influence on their career choice. But it is still unclear if one specific class was an individual's main influence during college. Further it was concluded that one's family dynamics held an influence on an individual's motivation to enter SBAE. Growing up watching family members in careers they love was also noted as a motive to pursue a similar career as an individual's family members in multiple studies (Hayes, 1990; Hillman, 1994; Reid

& Caudwell, 1997). Furthermore, it can be implied that career suggestions from individuals outside one's family can also be a large influence on the overall decision to enter SBAE.

### **Implications**

Regarding objective one, it is implied the sooner youth are introduced to agriculture, whether that be through the family farm or youth organizations, the more likely a passion for agricultural education could develop. Similarly, Chesnut and Burley (2015) found passion for teaching, love for the specific subject material, and opportunity to allow the next generation to express their creative abilities were all intrinsic motives for becoming a teacher. Through Bandura's Social Learning Theory researchers were able to investigate the why our participants got into education by using their behavior, personal, and environmental factors per discussed from their background information. Passion for the agriculture industry has been noted as a strong career influence in a recent study by Marx et al. (2017).

Participants noted the importance of an agricultural background, suggesting an opportunity may exist to work with organizations like 4-H and Ag in the Classroom to further expose youth to opportunities specifically related to teaching agriculture. The importance of prior experience in agriculture has been shown to influence students' choice of college major (Donnermeyer & Kreps, 1994; Wildman & Torres, 2001).

Objective one also brought light to the idea that having family members apart of the teaching profession can influence one to become a teacher it was noted within this research study that growing up in a family of teachers influenced individuals to enter the profession. Other studies noted similar findings such as, growing up watching family members in careers they love can often motivate someone to consider a similar career (Hayes, 1990; Hillman, 1994; Reid & Caudwell, 1997).



## **Research Objective Two – Describe the Advantages and Disadvantages of an Agriculture Teacher Not Having Participated in a SBAE Program as a Student**

### **Summary of Findings**

Objective two sought to identify the advantages and disadvantages participants found by not having participated in SBAE while in high school. Two themes emerged from the data collection. These themes included having pre-conceived notion of SBAE as an advantage and a lack of FFA and SAE knowledge as a disadvantage of not having participated in SBAE as a student. Through the framework Rots et al. (2010) noted in the Model of Teacher Education and the Choice to Enter the Teaching Profession researchers were able to look at what factors motivated one to enter the profession but also what the individual's entrance into the teaching profession looked like. It was from this objective that participants noted having an open mind and no pre-conceived notions of what a SBAE teacher should look like. It was also noted how difficult it was to enter a profession with little knowledge of a large portion of what the job description requires of a SBAE teacher; FFA, SAE, and record book knowledge.

### **Conclusions**

The second objective of this study was to describe the advantages and disadvantages each participant felt having not been in a SBAE program as a student. From the findings of this study, participants noted that having no-preconceived notions of how to be a SBAE teacher was a huge advantage. This means that participants liked to be able to bring in their own ideas, thoughts, and expectations into their classroom and FFA program rather than being just like or the complete opposite of their agriculture teacher, had they had one. A study from Chesnut and Burley (2015) found passion for teaching, love for the specific subject material, and opportunity to allow the next generation to express their creative abilities as intrinsic motives for becoming a teacher.

These intrinsic motives can be transferred into one's own ideas, thoughts, and expectations that they set in their own classroom and FFA program. Similar to Chesnut & Burley, Bandura (1978) and Rots et al., (2010) built on the idea that these motives are strong influences in why individuals enter SBAE, further this objective can conclude that a disadvantage of not having a background in SBAE is the lack of knowledge when it comes to FFA. With the lack of knowledge that comes from not having been in a SBAE program it can be implied that those who enter the profession may need more professional development and training when it comes to the FFA and SAE side of the job.

### **Implications**

An advantage that emerged through objective two was the lack of preconceived notions that come with not having a background in SBAE. This implies that perhaps SBAE teachers without prior experience as a student are uniquely positioned to serve as change agents in SBAE, given their ability to approach their job free from certain biases. One disadvantage noted by participants was a lack of FFA and SAE knowledge. Contradicting what our study found, a recent study found that, participation in FFA, having an active SAE, and agricultural education classes were found to be directly correlated to students' attitudes about their future ability to teach agriculture (Lawver & Torres, 2012). While it may be implied that these individuals may have a greater knowledge to start out with, the individuals in our study were just as likely to get into SBAE without this prior knowledge. Currently, ISBE, Illinois Ag Ed, and IAVAT all host a variety of workshops and conferences and related professional development to support the needs of SBAE teachers. These findings imply that perhaps targeting more professional development specifically for preservice teachers without SBAE backgrounds would be appropriate to further

build self-efficacy in these areas. Focused professional development has been noted as important in retaining SBAE teachers (Solomonson et al., 2018).

### **Research Objective Three – Identify Strategies to Recruit Potential Teachers that Did Not Participate in a SBAE Program at the Secondary Level**

#### **Summary of Findings**

The goal of objective three was to identify specific strategies to assist in recruiting potential teachers that did not participate in a SBAE program at the secondary level. While several strategies were identified, one concept kept surfacing in discussion with participants. It was that individuals within SBAE must be advocates of their profession. Often, students do not understand that agricultural education or teaching is an option for them, especially those who did not take agriculture classes in high school. By talking to students about their career options in agricultural education, and highlighting the positives within the profession, we may be able to recruit individuals and close the employment gap we are experiencing. Whether it be through peer pressure or a sit-down conversation, getting individuals to choose SBAE as a career comes down to current teachers in the profession, no matter their background advocating for their profession.

#### **Conclusions**

The third objective of this study was to identify strategies to recruit potential teachers that did not participate in a SBAE program at the secondary level. From the study it is concluded that current teachers in the profession must be advocates for their profession from day one. From this objective we can conclude that teachers need to step outside the comfort box of the SBAE classroom and reach out to individuals within their school district, community, as well as other

schools in the area that may not have SBAE. This conclusion is consistent with the framework from Rots et al. (2010) where researchers looked at motives of individuals to enter the profession stemming from external and internal influences. Individuals influencing one to enter the profession as their teacher, guidance counselor, or family member. From this objective it can also be concluded that teachers need to recognize the power and weight that what they say about their career can influence an individual to enter a profession or choose another based on what was said. This can be concluded because the teach ag motto is, “To raise awareness of the need to recruit and retain high quality and diverse agriculture teachers, encourage others to consider a career teaching agriculture and celebrate the positive contributions that agriculture teachers make in our schools and communities” (National Association of Agricultural Educators, n.d. para. 1).

### **Implications**

It is implied that teachers within SBAE need to make a much greater effort to talk to individuals both within their programs and to outside individuals about the SBAE profession. Currently, only individuals within a school SBAE program truly learn what a career in SBAE would be like. It can be implied that SBAE teachers should speak to general education classes and to schools in their area without SBAE programs to get the word out about what it means to have a career in agricultural education. Like our study, another study looking at why SBAE teachers opt to get into the profession to begin with found that secondary agriculture teachers influence a students’ decision on future career choice through their actions, comments, and classroom instruction (Park & Rudd, 2005). It can be implied that through objective three SBAE teachers have a strong influence on an individual going into SBAE, it can be noted that in order for more individuals to pursue a career a SBAE teacher is going to have to branch out to talk with more than just his/her own students. It can also be implied from this objective that how

teachers talk about their careers is going to impact the number of individuals that choose to enter the profession. With that in mind, teachers need to make sure that not only are they telling individuals about the pros of their job, but also discussing the cons to prepare them for their career.

### **Recommendations**

From the findings of this research study, the researcher provides the following recommendations for the profession, prep programs, and future research. These recommendations are specific to the state of Illinois as all ten participants reside and teach in the state, use cautions when generalizing recommendations and implications to individuals and states outside of the research.

#### **Recommendations for the Profession**

1. As the gap between individuals who enter the profession is much smaller than the individuals who are leaving the profession, a recommendation would be to advertise ag education to individuals outside of those that took SBAE courses and were involved in FFA.
2. ISBE and like organizations should reach out to guidance counselors in schools without SBAE programs to determine if any individuals are interested in ag education

#### **Recommendations for Teacher Prep Programs**

1. It is recommended that teacher prep programs branch out and talk to students outside of those who are on track for agricultural education. Students may have interest in elementary education, special education, etc.

2. It is recommended that teacher prep programs begin attending college/career fairs at schools that do not have SBAE as a course option.

### **Recommendations for Future Research**

1. It is recommended that future research done will include a larger audience of participants to gain a better understanding across a large audience to see if the themes continue.
2. For future research it is recommended that states outside of Illinois conduct the research to be able to determine if the common themes found are specific to the state of Illinois or if they can be found across the United States.

### **Chapter Summary**

In conclusion this study was conducted to determine why individuals with no prior SBAE experience opt to go through an agricultural education licensure program and step into the SBAE classroom to teach. It was determined through interviews that common themes between these individuals do exist, and they range from having a background in the agricultural industry, growing up with a family of teachers, taking a class in college that swayed their career choice, to having individuals in their lives influence their career choice. These common themes allowed researchers to determine recommendations for the profession, teacher prep programs, as well as for future research.

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APPENDIX: CORESPONDENCE, CONSENT DOCUMENTS, AND RESEARCH  
INSTRUMENTS

**Initial Correspondence**

[DATE]

Good morning Mr./Ms. [Insert Name],

My name is Jenna Offerman, and I am a graduate student at Illinois State University working with Dr. Jay Solomonson and Dr. Lucas Maxwell. I am conducting my thesis research on identifying factors influencing individuals who did not participate in a high school school-based agricultural education (SBAE) project to major in agricultural education and obtain their professional educators license (PEL) program themselves. The purpose of this study is to find additional populations to help fill the agriculture teacher shortage we are currently facing. Your name and contact information were provided by your FCAE program advisor as a possible participant for this study.

If you fit the above criteria (did not participate in a high school SBAE program, possess a PEL licensure, and are currently teaching agriculture) and are willing to meet with me for a 20-minute interview, please respond to this email and let me know that you are willing to participate! I understand that May/June is a very busy time, so if you are interested in participating, please let me know your availability in the next three weeks.

I look forward to being in contact with you.

Sincerely,

Jenna Offerman  
Illinois State University  
Graduate Student  
Agricultural Education & Leadership  
Email: jkoffer@ilstu.edu

## **Consent Document**

(Completed Via Qualtrics)

### **Consent to Participate**

Please read the consent statement carefully before you decide to participate in this study. The purpose of this study is to determine and examine factors that influence non-school-based agricultural education students to pursue a career in agricultural education. You are being selected as a possible participant because you have been identified by your FCAE program advisor as someone who did not participate in a traditional high school agricultural education program or FFA chapter. As an important segment of Illinois agricultural education, your insights and personal experiences as a new agriculture teacher are extremely valuable.

The study is being conducted by Ms. Jenna Offerman, Dr. Jay Solomonson, and Dr. Lucas Maxwell at Illinois State University. The data from the study will be collected and analyzed by these researchers.

We do not anticipate any risks beyond those that would occur in everyday life. Your decision to participate or decline participation in this study is completely voluntary and you have the right to terminate your participation at any time without penalty. If you decide to participate in this study, there will be no direct benefit to you. It is hoped that the information gained in this study will benefit society by providing insight on how to recruit agricultural education teachers beyond traditional methods. Only those 18 and older are invited to participate. You are ineligible to participate if you are currently within the European Economic Area. If you do not wish to complete the interview or are under 18 years old, please close the webpage.

We will use all reasonable efforts to keep any provided personal information confidential. To ensure confidentiality the following measures will be taken: All data will be coded, and names will be removed. Research data will be stored in a locked file cabinet and computer files will require a passcode to access. The data will be made available only to the persons conducting the research. No reference will be made in oral or written reports that could link participants to the research. Recorded audio will be transcribed then destroyed. Information that may identify you or potentially lead to reidentification will not be released to individuals that are not on the research team. Possible outlets of dissemination of the results of this study may be publication in a journal and presentation at a conference. Your data, even if deidentified, will not be used in

other research projects.

If you have questions about the study, please contact Ms. Jenna Offerman at [jkoffer@ilstu.edu](mailto:jkoffer@ilstu.edu) or Dr. Jay Solomonson at either [jksolom@ilstu.edu](mailto:jksolom@ilstu.edu) or (309) 438-8084.

Please be completely honest with your opinions. This interview should take approximately 20-30 minutes to complete, and it will be recorded and later transcribed for data analysis. If you have any questions about your rights as a participant, or if you feel you have been placed at risk, contact the Illinois State University Research Ethics and Compliance Office at (309) 438-5527 or [IRB@ilstu.edu](mailto:IRB@ilstu.edu). Please print a copy of this consent for your records. Your decision to participate, decline, or withdraw from participation will have no effect on your current status or future relations with Illinois State University or collaborative institutions.

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Q3 Full Name and School

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Q2 Please select one of the options below.

- I have read the procedure described above and am 18 years or older. I voluntarily agree to participate in this study.
- I do not wish to participate in this study.

## Research Instruments

### Semi Structured Interview Questions and Follow up Probing Questions (if necessary)

1. Tell me a little bit about yourself and your background growing up?
  - a. Did you live in the city or a rural area or farm?
  - b. What did your parents do?
  - c. Did you have friends or extended family involved in agriculture?
2. As a child what did you want to be when you grew up?
3. Why did you not participate in FFA/Agricultural education courses in high school?
  - a. Did you go to a school that did not have an agriculture program?
  - b. Did you not know what it was?
  - c. Did your guidance counselors not suggest the classes?
  - d. Was the agriculture teacher your deciding factor to not take the offered courses?
  - e. Did other students/peers cause you to not want to take the offered courses?
  - f. Did your parents influence your decision to not take the offered courses?
  - g. Were you trying to graduate early and did not have time for electives?
4. Were you ever involved in 4H?
  - a. Tell me about experience when if you were involved in 4H.
5. Tell me about your college experience, did anything during your college years motivate you to want to pursue a career in agricultural education?
  - a. What was your college major? Did it change throughout your collegiate experience?
6. What was your motivation to enter agricultural education not having participated in an agricultural program yourself?
  - a. Did you change careers to agricultural education? If so from what?
  - b. Was there a certain individual that motivated you?
  - c. Out of everything that you have listed as a motivation to enter the profession, what was your ultimate deciding factor?
7. Do you feel that when you first started teaching that you were at an advantage or disadvantage not having been involved in an agricultural education program in high school?



- a. Explain why or why not
8. As someone who did not participate in high school agricultural education what can we do as a profession to recruit more individuals to pursue a career in agricultural education who were also not involved in a high school agricultural education program?