

# Filling the Gap: Factors Influencing Individuals with No School-based Agricultural Education Background to Enter the Profession

Jenna K. Offerman<sup>1</sup>, Lucas D. Maxwell<sup>2</sup>, Jay K. Solomonson<sup>3</sup>, Michael J. Barrowclough<sup>4</sup>

## Abstract

*Teacher recruitment and retention in the United States has been deemed an issue across all disciplines and grade-levels. School-based agricultural education (SBAE) is no exception to this issue, where for decades a national shortage of qualified agriculture teachers has persisted. According to the 2021 Illinois Agricultural Education Annual Report, there were 84 open SBAE teaching positions in 2020 with only 36 graduates from university agricultural education teacher preparation programs. This lack of qualified teachers has forced many Illinois SBAE programs to either hire provisional teachers or shut down completely. 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. Using a phenomenological approach, semi-structured interviews were conducted with current SBAE teachers that never participated in a SBAE program. Open coding was used to reveal themes based on the research objectives and interview questions. Common themes revealed influences including possessing an agricultural background, taking agriculture coursework in college, growing up in a family of teachers, and having the career suggested to them. 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.*

## Introduction

Teacher recruitment and retention in the United States has been deemed an issue across all disciplines and grade-levels. Not only are fewer individuals entering teacher preparation programs, but many current teachers are leaving the profession before retirement eligibility (Will, 2022). It is estimated that nearly half of all new teachers in the U.S. leave the profession within five years of entering the classroom (Sims & Jerrim, 2020). School-based agricultural education (SBAE) is no exception to this issue, where for decades a national shortage of qualified agriculture teachers has persisted (Camp et al., 2002; Foster et al., 2020; Kantrovich, 2010).

Researchers have suggested SBAE teachers are generally satisfied with their careers, however many opt to leave the profession for one or more factors related to working conditions, poor compensation, employment factors, or personal reasons (Solomonson et al., 2018; Tippens et al., 2013). An additional reason cited for leaving the SBAE profession are the extensive works hours associated with SBAE

---

<sup>1</sup> Jenna K. Offerman is an Agricultural Education Teacher at Highland High School, 12760 Troxler Avenue, Highland, IL 62249, [jofferman@highlandcusd5.org](mailto:jofferman@highlandcusd5.org).

<sup>2</sup> Lucas D. Maxwell is an Associate Professor of Agricultural Education and Program Coordinator in the Department of Agriculture at Illinois State University, 147 Ropp Ag Building, Normal, IL 61790, [ldmaxwe@ilstu.edu](mailto:ldmaxwe@ilstu.edu).

<sup>3</sup> Jay K. Solomonson is an Assistant Professor of Agricultural Education in the Department of Agriculture at Illinois State University, 140 Ropp Ag Building, Normal, IL 61790, [jksolom@ilstu.edu](mailto:jksolom@ilstu.edu).

<sup>4</sup> Michael J. Barrowclough is an Associate Professor of Agribusiness in the Department of Agriculture at Illinois State University, 137 Ropp Ag Building, Normal, IL 61790, [mjbarr4@ilstu.edu](mailto:mjbarr4@ilstu.edu).

instruction (Croom et al., 2011). SBAE teachers often work well over the traditional 40-hour workweek (Hainline et al., 2015; Murray et al., 2011; Sorensen et al., 2016). These additional hours often take away from time spent with one's significant others, children, friends, or extended family (Lawver & Torres, 2012). With the fear of being unable to balance both a career and family life, many prospective teachers opt to never 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 over 2,400 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 Agricultural Education Annual Report (2021), there were 84 open SBAE teaching positions in 2020 with only 36 graduates from university agricultural education teacher preparation programs. This lack of qualified teachers has forced many Illinois SBAE programs to either 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 licensure programs to fill the vacancies posted each year (Andrews & Marzano, 2021). To mitigate this issue, it is essential for SBAE stakeholders in Illinois to search for potential teachers beyond the traditional candidate pool.

Traditionally, students who enter an agricultural education licensure program at the university level have also participated in some form of agricultural education focused activities during their K-12<sup>th</sup> grade education (Ingram et al., 2018). These types of activities include taking SBAE courses, participating in the National FFA Organization, and having an active Supervised Agricultural Experience (SAE) project (Ingram et al., 2018; Lawver & Torres, 2012; Marx et al., 2017). Researchers have suggested that students involved in these types of programs are more likely to choose 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).

On the contrary, Marx et al. (2017), through purposeful focus groups, examined why preservice teachers with no prior SBAE background decided to enter the SBAE teaching profession. Participants 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 chose to enter the SBAE profession (Marx et al. 2017). While similar in nature, our study expands upon the qualitative literature and examined the factors that influenced current agriculture teachers with no SBAE background to enter the profession. By recognizing these factors, individuals may be identified that could help fill the vacant Illinois SBAE teacher positions each year.

### **Theoretical and Conceptual Framework**

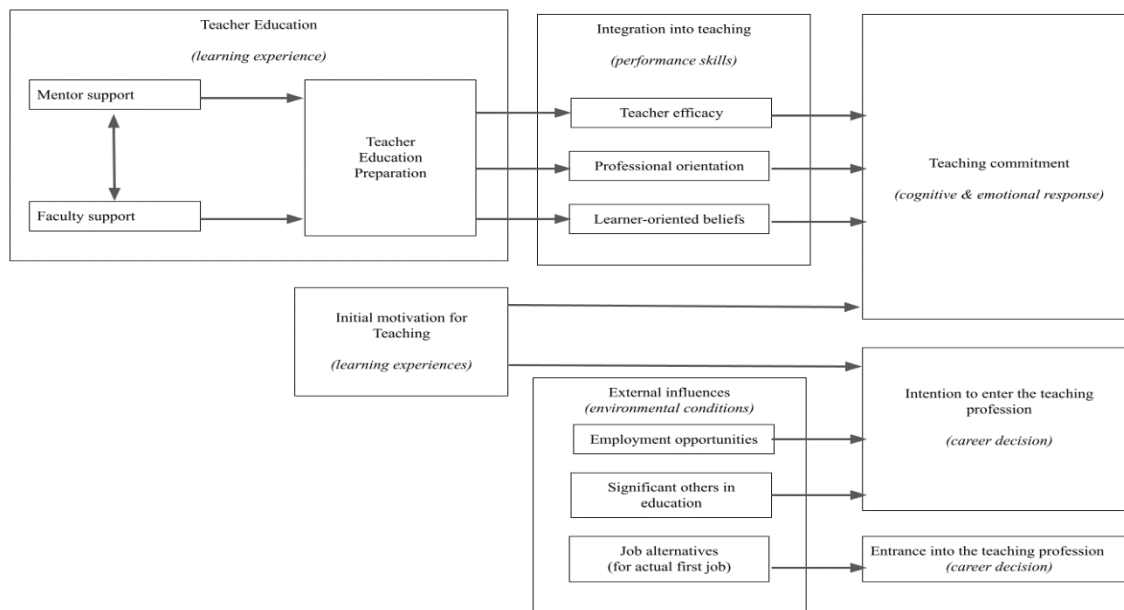
The framework for our study evolved from Bandura's (1978) Social Learning Theory (SLT) which provided a theoretical baseline to determine why individuals enter the teaching profession. Bandura's (1978) SLT suggested learning is a cognitive process that primarily takes place through observation, a substantial part of how educators learn. Thus, 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 to individual situations. This can differ based on one's skill level, amount of practice, as well as the individual's self-efficacy (Bandura, 1978). Cognitive factors are an individual's beliefs, level of knowledge, and attitude which may affect their decision making and ability to learn 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 an individual and their career choices (Krumboltz, 1979). Chapman (1983) applied these theories to the education profession, attempting to explain teacher retention and attrition. Chapman (1983) posited that teacher retention is influenced by the following personal characteristics, educational preparation, initial commitment to the profession, quality of the first employment experience, the professional and social integration into teaching, external influences, and career satisfaction. Rots et al. (2010) built further on SLT, examining why individuals enter the teaching profession following the graduation of a teacher education program (see Figure 1). This new model helps explain the relationship between teacher education variables as mentioned in Chapman's (1983) model and the individual's overall intent to enter the teaching profession.

**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 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. 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 influenced individuals with no SBAE student experience to major in and pursue a career in agricultural education.
2. Describe potential advantages and disadvantages of a SBAE teacher not having participated in SBAE as a student.

3. Identify recruitment strategies to attract SBAE teachers that did not participate in SBAE as a student.

## Methodology

A phenomenology design was deemed appropriate 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, a transcendental phenomenological approach implies the individuals conducting the research 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 study 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 the participant criteria (currently teaching agriculture, possessed a traditional teaching license, and did not participate in SBAE as a student) were provided by the Illinois agricultural education state staff. Of the 18 individuals initially contacted, 10 agreed to participate. Participant consent and demographic information were obtained through an online Qualtrics form.

Participants included six females and four males who taught SBAE 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. All participants were originally from the state of Illinois. To protect identities, participants were assigned a pseudonym. A brief description was provided to give additional context of the participant’s personal situation.

**Jane** grew up in a rural area where her family was involved in the agricultural industry. While not growing up on a farm, she always knew she wanted to be a teacher. After speaking to both 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, where she learned 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. Casey entered college as a special education major, soon to realize it was not for her. After a run in with her university’s agricultural education program coordinator, she switched her major to agricultural education.

**Chloe** was raised on a small horse farm. Although she lived in a community that she felt highly valued agriculture, the high school she attended did not have a SBAE program. She was a part of 4-H and would

often hear how much fun others were having in their agriculture classes. Due to these experiences, she decided to combine her passion for agriculture with teaching.

**Whitney** grew up in a rural community where only the “farm kids” took agriculture classes. She felt as though she did not fit in since her parents sold their farm years before, opting to not take SBAE classes in high school. After spending her childhood summers at her grandparents' farm, she realized her passion for the agricultural industry. Whitney decided to pair this passion with becoming a teacher, finding herself in agricultural education.

**Kelsey** grew up actively involved in 4-H and helping on her family's golf course. This is where Kelsey found her passion for the agricultural industry. Attending a parochial school with no SBAE program, she was unable to take SBAE courses. Upon enrolling in college and majoring in Human Resource Management, Kelsey made the switch to agricultural education during her sophomore year and never looked back.

**Holly** grew up on her family's dairy farm. Similar to other participants, her local schools provided no SBAE opportunities. Realizing that she did not want to take over the family dairy farm, she used the skills and knowledge learned through her 4-H experience to help make her decision to become an agriculture teacher.

**Nathen** was involved in production agriculture from an early age. Growing up on his family's orchard and Christmas tree farm, where they also raised cattle, his passion for the agriculture industry was sparked at a young age. Since his high school had no SBAE program, he opted to take other classes instead. Entering 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 soon realized that was where his passions lie.

**Blake** grew up in a suburb of Chicago. While Blake did not have the traditional “farm kid” experience, he did spend summers at his cousins' and grandparents' farm, where he found his passion for the agricultural industry. Entering college to one day be a large-animal veterinarian, he quickly switched his major after taking a few agricultural education introductory courses.

**Rick** grew up on the family farm until the age of five, when the 1980's farm crisis hit causing their family to sell the farm. With his extended family still actively involved in production agriculture, he was able to spend school breaks, weekends, and summers working “on the farm”. These childhood experiences coupled with having family members in the teaching profession led Rick to combine these two family passions and enter the agricultural education profession.

**James** grew up on a traditional grain farm. Being the youngest of four, James realized that the small family farm would not support him and his siblings. 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 consist of in-depth interviews with individuals that experienced the phenomenon of interest. During the summer of 2021 we conducted semi-structured interviews with the 10 participants via Zoom. Questions were asked to identify factors influencing the participant's decision to pursue a career in SBAE, potential advantages and disadvantages of SBAE teachers not having participated in SBAE as a student, and potential strategies to recruit individuals with similar backgrounds into the SBAE profession. Three agricultural education teacher educators, all former SBAE teachers, with over forty years of collective experience in the profession reviewed the research protocol for validity prior to interviewing. Interview questions asked of participants can be found in Table 1. Additional follow-up questions were asked if necessary.

**Table 1***Questions Used During the Semi-Structured Interviews*

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 having not participated in an agricultural program yourself?
7. Do you feel that when you first started teaching that you were at an advantage or disadvantage having not been involved in an agricultural education program in high school? Please 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?

All interviews were recorded and transcribed verbatim. Field notes were taken during each interview. Transcriptions and field notes were analyzed using an open-coding technique. Members of our research team read these data, line by line, to identify all significant concepts, or codes. These codes were used to identify 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, given they met the 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 following 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 were current Illinois SBAE teachers who never participated in SBAE as a student. All 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 grew up in a rural community and were part of their local 4-H organization. The participants' leading reasons for not participating in SBAE during their K-12<sup>th</sup> grade education 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 1 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 dominant theme that emerged was possessing an agricultural background. All participants either grew up or worked on a family farm, showed livestock, maintained a garden, or had family members 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 out of state with my family 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 desire to continue visiting the farm. This is where she says she found her passion for agriculture. Had it not been for those opportunities, she may have never pursued a career in agricultural education.

Another participant, Holly, 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 from working on the family farm and at her home county's county fair office the impact of the agricultural industry. Rich was another participant whose family sold the "family farm" when he was young. He stated, "Even though my [immediate] family got out of farming, a lot of my family was still involved in agriculture in the area." Rich was involved in production agriculture through extended family, who he would visit and spend summers working with while helping on the farm.

While many participants had a traditional production agriculture background, Casey was not one of them. She grew up with horses and a large garden but did not see herself as being "in agriculture". Not until attending college did she consider herself as someone affiliated with the agricultural industry. Looking back, Casey says she realizes that having horses and a large garden, while not a typical production farm, was "still agriculture." Blake, with a similar background to Casey, stated, "My cousins got me involved in showing livestock and I met individuals who allowed me to keep my livestock at their place." Blake admitted that had it not been for his cousins introducing him to showing cattle and allowing him to keep his livestock at their farm, he likely would not have been as involved in agriculture.

Most other participants also grew up showing livestock and having projects in their local 4-H club. Kelsey stated, "I was in 4-H growing up with my cousins." 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***

Taking college agricultural courses emerged as an additional theme. While most participants entered college majoring in some field of agriculture, others found their way to agricultural education following a university experience that changed their career path. 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 university's agricultural education program coordinator.

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 visit her advisor but ran into one of the agricultural education professors along the way. After a brief conversation she switched majors to agricultural education. According to Casey she was "hooked", "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 major in an agricultural education licensure program. 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 "opened" Blake's eyes was *Youth Programs and Organizations in Agriculture*. 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 mention specific courses that piqued her interest in agricultural 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 helped point her in the right career direction, she talked more about the classes that pushed her away from her original major. She stated, "I started in communications classes and my junior year made the switch to agricultural education."

### ***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." While Blake realized through taking college agriculture courses that he wanted to pursue a career in agricultural education, his father played a key role in his career decision. 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 stated,

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” and received 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 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. As Holly said, “When enough people tell you ‘You would be a great agriculture teacher’ it gets you thinking.”

## **Objective 2**

Objective 2 sought to identify the advantages and disadvantages participants found by not having participated in SBAE while in high school. Two general themes emerged. These included having no pre-conceived notion of SBAE as an advantage and a lack of FFA and SAE knowledge as a disadvantage.

### ***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 little to nothing specific about it. Chloe stated,

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 individuals may 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 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 participant that believed 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. 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 tasks compared to 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 student teaching semester.

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

A disadvantage that emerged while talking with participants was their overall lack of FFA and SAE knowledge. Several participants felt they did not know enough about specific SBAE programming activities, such as leadership training, Career Development Events (CDE’s), and SAE’s when they began teaching. Reflecting back, 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 more 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 indicated that she lacked FFA and SAE knowledge, but was lucky to land in a place with two established teachers. She noted that because she had mentors and someone she could turn to, she was able to manage this disadvantage as she “could ask for help and would then get the help she needed.” Jane was another participant who felt as though she had a great cooperating teacher to help navigate through the challenges of having little FFA and SAE knowledge. Jane stated, “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 and retaining potential SBAE 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 much negativity surrounding the field of education from individuals both inside and outside the profession, it is imperative for those involved in agricultural education to actively advocate for others to join the profession. Often, students do not understand that agricultural education or teaching offers a viable career path for them, especially those who did not take agriculture classes in high school. By talking to students about career options in agricultural education and highlighting the positives within the profession, we may be able to recruit individuals and close the employment gap the profession is currently 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. In these situations, Holly would start a conversation about agricultural education, focusing on the great parts of the profession, to get students to think about the possibility of teaching as a career.

Chloe stated, “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, students may never know that the 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 that speaks positively about the profession 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 avoided 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 use should they have additional 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” may help the profession meet the current and expected 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 Illinois State Board of Education (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, 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). Because of their background and experience, participants often noted developing a passion for agriculture. This implies the sooner youth are introduced to the agriculture profession, whether that be through the family farm or youth organizations, the more likely a passion for agricultural education could develop. 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. Similarly, passion for the agriculture industry was noted as a strong career influence in a recent study by Marx et al. (2017). Having framed our study around Bandura’s SLT and its influence on later models describing factors influencing individuals’ choice to enter the teaching profession, the impact of one’s background and passion is not surprising.

Objective one also highlighted the idea that having family members who are part of the teaching profession can influence one to become a teacher. It was noted within our findings 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. This suggests that the FFA and SAE components of the 3-circle model are uniquely challenging for teachers who did not participate in SBAE. This notion is supported by a study indicating participation in FFA, having an active SAE, and participating in agricultural education classes were found to be directly correlated to students' attitudes about their future ability to teach agriculture (Lawver & Torres, 2012). Currently, the Illinois State Board of Education, the Illinois Facilitating Coordination in Agricultural Education (FCAE), and the Illinois Association of Vocational Agriculture Teachers (IAVAT) all host a variety of workshops, conferences, and related professional development activities to support the needs of Illinois SBAE teachers. Our findings point to the need for additional professional development opportunities, specifically for preservice teachers without SBAE backgrounds, focused on building self-efficacy in these areas. Focused professional development has been noted as important in retaining SBAE teachers (Solomonson et al., 2018).

The findings from objective three suggests that SBAE teachers need to make a greater effort to talk to both individuals within their programs and to outside individuals about the positives and advantages of the SBAE profession. It is recommended that SBAE teachers 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. Park and Rudd (2005) found that secondary agriculture teachers influence a student's decision on future career choice through their actions, comments, and classroom instruction. This only further illustrates the importance of our emergent theme that SBAE teachers must be advocates for their profession. Given the well documented national shortage of SBAE teachers, it is imperative that teachers advocate for their profession to more than just their own students (Camp et al., 2002; Foster et al., 2020; Kantrovich, 2010). It is also important to note that how teachers talk about their careers impacts 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 themes that emerged from our study suggest that one does not have to have an SBAE background to find their way into the agricultural education career field. Further, participation in SBAE/FFA programs or 4-H groups is not a requirement to enter into this career field. Across the nation there is a SBAE teacher shortage that needs to be addressed, as there are clearly not enough students graduating from SBAE programs who want to pursue a career in the classroom. Through the lens of our study participants, we have gained insight regarding the experiences of a demographic that we can target to try and address the SBAE teacher shortage.

Based on these findings and conclusions, we recommended that recruitment efforts in agricultural education expand beyond traditional audiences to include allied disciplines like science and technology. The experiences of our participants illustrate the ability of those without a SBAE background to be successful. Additionally, we recommend that organizations with deep roots in Illinois agricultural education like ISBE and IAVAT reach out to middle and high school guidance counselors that work in schools with no SBAE program. Counselors at these schools should be provided with tools and information to inform students with an interest in agriculture about potential careers in SBAE.

It is recommended that teacher preparation programs create opportunities to speak with deciding students on their campuses who have expressed an interest in education but not yet selected a specific discipline. By putting the SBAE teacher preparation program in their mind one may find that some will switch their paths. We further recommend teacher preparation programs begin attending college/career fairs at schools that do not have SBAE as a course option to help inform a broader audience about the career opportunities in the discipline. Further research is recommended with a larger audience of participants and with those outside of Illinois to confirm and refine the emergent themes from our study. It is also recommended to collect longitudinal data on agriculture teachers with no SBAE background to determine their longevity in the profession.

## References

- Andrews, H. A., & Marzano, W. A. (2021). *Illinois teacher shortage crisis: Quick fixes and long-range solutions*. Illinois Association of School Boards. <https://www.iasb.com/about-us/publications/journal/2021-illinois-school-board-journal/november-december-2021/illinois-teacher-shortage-crisis-quick-fixes-and-l/>
- Bandura, A. (1978). *Social learning theory of aggression*. Vol. 28. Oxford University Press.
- Camp, W. G., Broyles, T., & Skelton, N. (2002). *A national study of the supply and demand for teachers of agricultural education in 1999-2001*. Blacksburg, VA: Virginia Polytechnic Institute and State University.
- Chapman, W. (1983). A context for career decision making. *ETS Research Report Series*, 1983: i-27. <https://doi.org/10.1002/j.2330-8516.1983.tb00013.x>
- Chesnut, S. R., & Burley, H. (2015). Self-efficacy as a predictor of commitment to the teaching profession: A meta-analysis. *Educational Research Review*, 15, 1-16. <https://doi.org/10.1016/j.edurev.2015.02.001>
- Cole, L. (1984). Oregon vocational agriculture teacher placement and retention factors. *Journal of the American Association of Teacher Educators in Agriculture*, 25(3), 2-12. <https://doi.org/10.5032/jaatea.1984.03002>
- Creswell, J. W. (2007) *Qualitative inquiry and research design: Choosing among five approaches*. (2<sup>nd</sup> ed.), Sage, Thousand Oaks.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. (3<sup>rd</sup> ed.), Sage Publications.
- Croom, B., Flowers, J., Murray, K., & Wilson, B. (2011). The agricultural teachers struggle for balance between career and family. *Journal of Agricultural Education*, 52(3), 107-117. <https://doi.org/10.5032/jae.2011.02107>
- Donnermeyer, J. F., & Kreps, G. M. (1994). Assessing college of agriculture freshmen. *NACTA Journal*, 38(1), 45-48. <http://www.jstor.org/stable/43764987>
- Foster, D., Lawver, R., & Smith, A. (2020). *National agricultural education supply and demand study, 2020 Executive Summary*. <http://aaaeonline.org/resources/Documents/2020%20NSD%20Executive%20Summary.df>

- Hainline, M. S., Ulmer, J. D., Ritz, R. R., Burris, S., & Gibson, C. D. (2015). Career and family balance of Texas agricultural education teachers by gender. *Journal of Agricultural Education, 56*(4), 31-46. <https://doi.org/10.5032/jae.2015.04031>
- Hayes, S. (1990). *Students' reasons for entering the educational profession*. (ERIC Document Reproduction Service no ED366234). <http://files.eric.ed.gov/fulltext/ED366234.pdf>
- Hillman, J. (1994). *Undergraduate perceptions of teaching as a career*. In National Commission on Education Insights into Education and Training, papers selected by the Paul Hamlyn Foundation. London: Heinemann.
- Illinois Ag Ed Annual Report. (2021). *2021 Illinois Agricultural Education Report*. [https://www.ilaged.org/docs/Final%202021%20AFNR%20Education%20Annual%20Report\\_91932.pdf](https://www.ilaged.org/docs/Final%202021%20AFNR%20Education%20Annual%20Report_91932.pdf)
- Illinois State Board of Education (2022). *Unfilled Positions 2017-2021*. <https://www.isbe.net/Pages/Unfilled-Positions-Archive.aspx>
- Ingram, M. L., Sorensen, T. J., Warnick, B. K., & Lawver, R. G. (2018). The influence of school-based agricultural education on preservice agriculture teachers' choice to teach. *Journal of Agricultural Education, 59*(2), 64-78. <https://doi.org/10.5032/jae.2018.02064>.
- Kantrovich, A. J. (2010). *A national study of the supply and demand for teachers of Agricultural education from 2007-2009*. American Association for Agricultural Education. <http://www.naae.org/teachag/2010%20AAAE%20Supply%20Demand%20Study.pdf>
- Krumboltz, J. D. (1979). *A social learning theory of career decision making*. Carroll Press.
- Lawver, R. G., & Torres, R. M. (2012). An analysis of post-secondary agricultural education students' choice to teach. *Journal of Agricultural Education, 53*(2), 28-42. <https://doi.org/10.5032/jae.2012.02028>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
- Marx, A., Smith, A., Smalley, S., & Miller, C. (2017). Previous experience not required: Contextualizing the choice to teach school-based agricultural education. *Journal of Agricultural Education, 58*(4), 126–142. <https://doi.org/10.5032/jae.2017.04126>
- Miller, W. W., Williams, D. L., & Sprouse, D. W. (1984). Factors concerning students' perceptions of teaching vocational agriculture. *The Journal of the American Association of Teacher Educators in Agriculture, 28*(4), 50-56.
- Moustakas, C. E. (1994). *Phenomenological research methods*. Sage Publications.
- Murray, K., Flowers, J., Croom, B., & Wilson, B. (2011). The agricultural teacher's struggle for balance between career and family. *Journal of Agricultural Education, 52*(2), 107-17. <https://doi.org/10.5032/jae.2011.02107>
- Osborne, E. (1992, June). A profession that eats its young. *The Agricultural Education Magazine, 64*(12), 3. [https://www.naae.org/profdevelopment/magazine/archive\\_issues/Volume64/Vol64\\_No1.pdf](https://www.naae.org/profdevelopment/magazine/archive_issues/Volume64/Vol64_No1.pdf)

- Park, T. D., & Rudd, R. (2005). A description of the characteristics attributed to students' decisions to teach agriscience. *Journal of Agricultural Education*, 46(3), 82–94. <https://doi.org/10.5032/jae.2005.03082>
- Polkinghorne, D.E. (1989). Phenomenological research methods. In R.S. Valle & S. Halling, S., (Eds.), *Existential-phenomenological perspectives in psychology*. Springer, Boston, MA. [https://doi.org/10.1007/978-1-4615-6989-3\\_3](https://doi.org/10.1007/978-1-4615-6989-3_3)
- Reid, I., & Caudwell, J. (1997). Why did secondary PGCE students choose teaching as a career? *Research in Education*, 58, 46-58.
- Rots, I., Aelterman, A., Devos, G., & Vlerick, P. (2010). Teacher education and the choice to enter the teaching profession: A prospective study. *Teaching and Teacher Education*, 26(8), 1619–1629. <https://doi.org/10.1016/j.tate.2010.06.013>
- Sims, S., & Jerrim, J. (2020). *TAILS 2018: Teacher working conditions, turnover, and attrition*. Department for Education. <https://doi.org/10.1007/s11218-018-9464-8>
- Solomonson, J., Korte, D., Thieman, E., Retallick, M., & Keating, K. H. (2018). Factors contributing to Illinois school-based agriculture teachers' final decision to leave the classroom. *Journal of Agricultural Education*, 59(2), 321-342. <https://doi.org/10.5032/jae.2018.02321>
- Sorensen, T. J., McKim, A. J., & Velez, J. J. (2016). Why agriculture teachers leave: A national examination of turnover intentions and work-family conflict. *Journal of Agricultural Education*, 57(4), 186-201. <https://doi.org/10.5032/jae.2016.04186>
- Tippens, A., Ricketts, J., Morgan, A., Navarro, M., & Flanders, F. (2013). Factors related to teachers' intention to leave the classroom early. *Journal of Agricultural Education*, 54(4). 58-72. <https://doi.org/10.5032/jae.2013.04058>.
- Van Manen, M. (1990). *Researching lived experience: Human science for an action Sensitive pedagogy*. State University of New York Press.
- Wildman, M., & Torres, R. M. (2001). Factors identified when selecting a major in agriculture. *Journal of Agricultural Education*, 42(2), 46–55. <https://doi.org/10.5032/jae.2001.02046>
- Will, M. (2022, March 22). Fewer people are getting teacher degrees. Prep programs sound the alarm. *Education Week*. <https://www.edweek.org/teaching-learning/fewer-people-are-getting-teacher-degrees-prep-programs-sound-the-alarm/2022/03>