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Why Do They Leave and Where Do They Go? A Qualitative Study of Illinois School-Based Agriculture Teachers Who Left The Profession

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Keywords

teacher attrition, teacher retention, agricultural education, social support

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Comments

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Why Do They Leave and Where Do They Go? A Qualitative Study of Illinois School-Based Agriculture Teachers Who Left The Profession

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Abstract

Approximately half of a million educators move or leave the profession each year with an estimated 41% of all educators exiting within the first five years. Additionally, agriculture teacher preparation programs are not producing enough graduates to meet current demands with 1,476 agricultural teacher vacancies existing in 2016 and only 772 individuals completing an approved teacher preparation program to become fully licensed. While the lack of young people entering the teaching profession is concerning, researchers have suggested teacher attrition is the predominant reason behind the ongoing teacher shortage. The purpose of this qualitative study was to identify factors influencing former agriculture teachers' decision to leave the classroom. Themes developed that stem from unrealized expectations for one's career and the belief that being an excellent agriculture teacher is incompatible with a satisfying personal life. A final theme indicated the need for additional support alongside a philosophical shift in the profession that dictates "more is not always better." Recommendations are made for further research along with ideological and practical shifts needed within the profession to improve teacher retention.

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Introduction

Reports have acknowledged the United States' recurrent struggle to keep educators in the teaching profession (Ingersoll, Merrill, & Stuckey, 2014). Previous research has indicated that approximately half of a million teachers move or leave the profession each year (Haynes, 2014) with an estimated 41% of all educators exiting within the first five years (Ingersoll, Merrill, & Stuckey, 2014). This exodus is a considerable financial problem, as teacher attrition costs approach \$2.2 billion in the U.S. alone annually (Haynes, 2014). Furthermore, student achievement is negatively impacted when quality teachers leave the profession (Ronfeldt, Loeb, & Wyckoff, 2012). Researchers have recognized quality teachers as a leading, influential variable impacting student success during the formal education years (Alegreto, Corcoran, & Mishel, 2008; Darling-Hammond, 2000; Sanders &

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Rivers, 1998; Stronge, 2007). Due to these reasons, retaining high caliber educators is an essential component of a high-quality education system.

When considering retention of teachers, the field of agricultural education is of concern as there is also a national shortage of highly qualified teachers. According to the most recent Executive Summary of the National Agricultural Education Supply and Demand Study, agricultural teacher preparation programs are not producing enough graduates to meet current demands (Smith, Lawver, & Foster, 2017). Smith et al. (2017) reported 1,476 agricultural teacher vacancies existed in 2016. However, only 772 individuals completed an approved teacher preparation program to become fully licensed. Consequently, 66 full-time positions remained unfilled even after positions were staffed by alternatively certified individuals in 2017 ($n = 245$, 16.6%) or those not certified to teach ($n = 80$, 5.4%) (Smith et al., 2017).

The state of Illinois is no exception. In 2013, Illinois had 57 statewide openings for agriculture teachers, while only 11 individuals completed an agricultural education teacher certification program (Illinois Annual Ag Ed Report, 2014). Of those individuals, only six decided to teach secondary agricultural education. While many school districts struggle to fill these positions, others are forced to close their agriculture programs due to inadequate staffing. Teacher attrition has been suggested as the predominant reason behind the ongoing teacher shortage (Sutcher, Darling-Hammond, & Carver-Thomas, 2016).

To address the issue, researchers must identify why agriculture teachers are leaving the profession. Several studies have revealed agriculture teachers as mostly satisfied with their careers (Blackburn, Bunch, & Haynes, 2017; Blackburn & Robinson, 2008; Cano & Miller, 1992; Castillo & Cano, 1999; Chenevey, Ewing, & Whittington, 2008; Gilman, Peake, & Parr, 2012; Kitchel et al., 2012; Sorensen & McKim, 2014; Sorensen, McKim, & Velez, 2016; Walker, Garton, & Kitchel, 2004). With this considered in the context of significant attrition issue, being “mostly satisfied” with one’s career does not appear to be enough to prevent attrition. These studies have examined attrition variables within agricultural education; however, much of this research investigated the perceptions of those teachers still in the profession, as opposed to those who have left. Studies are scarce on actual attrition with a limited number examining former teachers that had already left the field. Moreover, there were no studies found that provided insight from “leavers” on what can be done as a profession to resolve the teacher attrition problem.

Literature Review

Kantrovich (2010) indicated the teacher shortage in school-based agricultural education (SBAE) is not necessarily a new phenomenon but has been present for at least the last four decades. Many researchers have focused on the agriculture teacher shortage and retention/attrition issue in the United States. Much of the previous research has attempted to identify problems current agriculture teachers encounter contributing to various reasons one might consider leaving the profession. Fewer studies focused on career commitment and intentions for agriculture teachers to stay in the classroom (Gilman et al., 2012; Warnick, Thompson, & Tarpley, 2010). Researchers have suggested that personal characteristics, educational preparation, the initial commitment to teaching, quality of the first teaching experience, external influences, and levels of social/professional integration into the education profession may influence career satisfaction among teachers (Chapman, 1983; Walker, Garton & Kitchel, 2004).

Several studies have examined personal characteristics and their influences on teacher attrition in SBAE. Castillo and Cano (1999) reported gender disparities relating to specific responsibilities of the job, with women indicating lower levels of satisfaction with advancement, working conditions, supervision, and issues dealing with school policy and administration when compared to their male

counterparts. However, other studies indicated no significant differences between personal and professional characteristics of agriculture teachers and the likelihood to remain in the profession (Gilman et al., 2012; Warnick, Thompson, & Tarpley, 2010). Furthermore, the amount and type of educational training acquired has been shown to influence a teacher's decision to remain in the profession. Researchers have determined adequate educational training results in increased teacher retention rates (Ingersoll, Merrill, & May, 2014; Thobega & Miller, 2003). Robinson and Edwards (2012) confirmed this statement that those finishing a traditional certification program were more likely to stay in the profession than those completing an alternative certification program. With the increasing number of alternatively licensed and not licensed individuals being hired to teach agricultural education, this phenomena will likely lead to climbing attrition rates.

Career commitment is suggested as a reliable predictor to determine if teachers' will remain in the profession (Crutchfield, Ritz, & Burris, 2013, Sorensen & McKim, 2014). Studies also indicated a significant relationship between career commitment and self-efficacy, which correlates with high levels of career satisfaction (Blackburn and Robinson, 2008; Knobloch & Whittington, 2003; Swan, Wolf, & Cano, 2011). The experiences of preservice and novice teachers appear to impact teacher retention, with Wolf (2011) finding new teachers having an excellent student teaching experience and first year of teaching contributes to greater teacher retention. Haynes (2014) agreed by indicating that, "Retention is closely related to the quality of the first teaching experience" (p. 6).

External influences, such as school climate and working conditions, have also been shown to impact teachers' decision to leave the profession. Sutcher et al. (2016) indicated that 55% of former teachers report poor working conditions as a significant reason for their decision to leave the profession. Common problems related to working conditions include paperwork, unreasonable out-of-classroom expectations, poor student motivation and discipline, lack of stakeholder support, and inadequate resources, facilities, and equipment (Boone & Boone, 2007; Boone & Boone, 2009; Rice, LaVergne, & Gartin, 2011). Additionally, issues related to professional and social integration contribute to overall career satisfaction. Chapman (1983) suggested, "The greater a teacher's involvement in the professional aspect of his or her career and the more social ties that person has to others in the school, the more likely that teacher will remain employed" (p. 45).

Theoretical and Conceptual Framework

The conceptual framework used for this study was the Teacher Retention Model developed by Chapman (1983). Chapman's model for teacher retention has a theoretical base in social learning theory wherein personal characteristics, learning experiences, and environmental determinants influence the psychological functioning of teachers throughout their decisions to persist in or leave the profession of teaching. Variables of career movement (Krumboltz, 1979) also have been integrated into the model to broaden the scope of psychosocial variables which may influence teachers' retention and attrition decisions. Along with social learning theory, Chapman (1984) suggested that genetic variables, cognitive and emotional responses relative to career satisfaction, and the perception of performance skills from early teaching experiences also contribute to a teacher's career decision to remain in or leave teaching. For the current study, influences identified in the Teacher Retention Model were used during the design, interview protocol development, and data interpretation phases.

Purpose and Objectives

This study aligns with the American Association for Agricultural Education (AAAE) National Research Agenda Research Priority 3, specifically addressing 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).

The purpose of this qualitative study is to identify influencing factors in former school-based agriculture teachers' decision to leave the agriculture classroom through examination of those who have left the profession. Specific research objectives included:

1. Describe the leading factors influencing the decision of becoming an agriculture teacher.
2. Describe the leading factors influencing former Illinois agriculture teachers' decision to leave the profession.
3. Describe changes perceived as necessary to improve retention rates of agriculture teachers in Illinois.

Methodology

This qualitative study is part of an ongoing, longitudinal follow-up to a quantitative study with questionnaires sent to 155 former Illinois agriculture teachers who left the secondary agricultural education classroom between 2008 and 2017. The year 2008 was selected as the starting point because it was the first year of more detailed record keeping in Illinois for those teachers who were exiting the profession. The questionnaire yielded 91 respondents for a 58.71% response rate. Participants in the quantitative questionnaire were provided the option at the end of their responses to indicate if they were interested in being interviewed in person or by phone as a follow-up. Caution is recommended in applying the study more broadly as this study should not be generalized beyond the population of former teachers who participated in this study. However, the findings will provide insights for Illinois teacher educators, agricultural education teacher leaders in Illinois, and state staff working with Illinois agricultural education.

Population and Sampling

A total of 17 former high school agriculture teachers indicated interest in participation in a follow-up interview after the initial quantitative questionnaire was sent to all members of the sample. Two researchers conducted the interviews by phone or in-person with most interviews lasting about 30 minutes; researcher field note composition occurred while conducting the interviews. The quantitative questionnaire was used to provide demographic information of interest for the current study. Demographic descriptions of each participant, along with the identifier that will be attached to their quotes in the findings section, are displayed in Table 1. We removed all identifying characteristics of participants, in accordance with Institutional Review Board (IRB) requirements. Most the participants were male ($n = 13$, 76.5%) and had obtained traditional licensure through a teacher licensure program at a university ($n = 15$, 88.2%). Many of the participants left the profession within the first five years of teaching ($n = 10$, 58.8%) with a smaller proportion leaving after five years of service ($n = 7$, 41.2%).

Table 1

Demographic Summary of Study Participants (n = 17)

Participant Identifier	Gender	Number of Years Taught	Age When Teacher Left the Profession	Year Teacher Left the Profession	Type of Licensure
M1	Male	16	49	2012	Provisional
M2	Male	16	39	2017	Traditional
M3	Male	11	33	2016	Traditional
F1	Female	9	31	2017	Traditional

Table 1

Demographic Summary of Study Participants (n = 17) Continued...

M4	Male	9	31	2012	Traditional
F2	Female	8.5	31	2018	Traditional
M5	Male	6	31	2010	Traditional
M6	Male	5	28	2015	Traditional
F3	Female	5	27	2017	Traditional
M7	Male	4	41	2017	Traditional
F4	Female	4	26	2017	Traditional
M8	Male	4	26	2014	Traditional
M9	Male	3	29	2011	Traditional
M10	Male	2.5	28	2015	Traditional
M11	Male	2	57	2017	Provisional
M12	Male	2	54	2017	Traditional
M13	Male	2	25	2016	Traditional

Data Handling

We obtained demographic information for the participants from the quantitative questionnaires (Table 1) and utilized a semi-structured interview protocol having ten questions, with probing questions asked as needed for follow-up. Quantitative questionnaires were examined prior to interviews to allow probing questions tailored for the individual participants based on their responses. Researchers conducting interviews consulted with each other to adjust the interview protocol periodically to ensure the participant were adequately addressing the research objectives. Questions were asked to determine current employment, examine reasons contributing to the decision to leave the profession, examine satisfaction with the decision to leave, and identify if and what changes could be made in the profession that would increase retention of secondary agriculture teachers. Three former high school agriculture teachers who are also teacher educators and one current agriculture teacher from Illinois were consulted to examine the validity of the semi-structured interview protocol. These individuals were consulted to provide feedback on the questions to ensure the questions were applicable for the intended participants based on unique dynamics and structures found in individual states. The interviews were conducted in the summer of 2017 during a two-week period and transcribed the digital audio recordings through a transcription service company (www.rev.com).

Before data analysis, researchers who coded data began by discussing the conceptual/theoretical frameworks and researcher worldviews to delineate the drive of the study. The primary drive of the coding process was determined to be examining agricultural teacher attrition through the application of Chapman's (1983) framework of teacher retention. Audio transcriptions were open coded for themes by research objective using the variables contributing to teacher attrition in Chapman's framework (1983). Two researchers independently coded transcripts, interviewer field notes, and short answer responses from the previously collected quantitative questionnaires during the initial phase (Creswell, 2007). This initial coding revealed 46 unique codes across 342 coded objects. The results of the initial coding were reconciled between the two researchers through an inductive process where each researcher alternated sharing codes and corresponding coded objects. Through this sharing of coded objects, codes were reconciled to ensure both researchers coded objects similarly.

With a total of 27 reconciled codes, these codes were then synthesized into 13 emergent themes. Once emergent themes were developed, member checking was conducted with four ($n = 4$) participants

to ensure confirmability of the emergent themes. Participants were chosen who maximized variability to ensure the themes could be confirmed or denied across the range of participants. Member checking confirmed and provided further context for the emergent themes that were developed as an accurate representation of the participants' beliefs and perceptions. In a final step, we combined the emergent themes into the final five themes.

In addressing qualitative rigor and relevance, several methods were utilized based on the recommendations of Creswell (2007) and Lincoln and Guba (1985). We ensured rigor through triangulation of data by considering multiple data sources. Data sources triangulated included: transcribed interviews, audio recordings of interviews, researcher field notes, and quantitative questionnaire data. We folded quantitative questionnaire data from open-ended response dialogue box into the qualitative study for consideration. We addressed confirmability and dependability through member checking via a review of findings by four participants representing both genders, and those who existed both early and later in their careers. We established consensual validation using multiple researchers in the independent and subsequent convergent coding process.

In qualitative research, it is essential to disclose potential biases (Creswell, 2007). Researchers who completed the coding for the study are highly involved in secondary agricultural education. At the time of the study, one researcher was a current doctoral candidate with 15 years of experience as a high school agricultural teacher. The other researcher is a former high school agricultural teacher and was an agricultural education teacher educator who works with teacher preparation and induction programming for novice teachers. As a result, researchers drew from prior experiences when developing concepts surrounding teacher retention and attrition.

Findings

Through the initial round of coding, 13 concepts were found which were folded into the final five themes across the objectives of the study. The emergent concepts revealed the former teachers' emotions and events surrounding their decisions to both enter and leave the profession, along with their perception of the preparation they received and their effectiveness as agriculture teachers. The concepts include: (1) importance of family, (2) personal goals and aspirations, (3) professional goals and aspirations, (4) preparedness for teaching, (5) effectiveness as a teacher, (6) youth experiences in agriculture, (7) need for support, (8) agriculture teacher as role model, (9) a calling to teach, (10) desire to influence youth, (11) need to positively impact society, (12) continued involvement in FFA activities, and (13) expectations of the job.

Objective 1 Themes

Objective one sought to identify reasons leading to individuals becoming an agriculture teacher. Two themes revealed experiences in youth were foundational in the decision to pursue a career in agricultural education.

1.1 Positive agriculture and FFA experiences in youth and a desire to continue that involvement can lead to pursuit of a career in agricultural education. The first theme discusses the impact of early experiences in agriculture and their impact on the pursuit of a career in agricultural education. Previous experiences that were positive in agriculture at-large, and more specifically within 4-H and FFA, were recounted by many participants when sharing the "why" of becoming an agriculture teacher. One man who left after the fourth year of teaching (M7) shared,

I would say probably because of the fantastic experience I had as a high school student myself. I appreciated the opportunities that I was given from my high school ag teachers. Opportunities to travel and see different parts of the state and country that I had not been to before. The

opportunity to go out and compete in events that I was able to experience some degree of success in.

Several former teachers described a very early calling to be a teacher, but it was positive experiences in formal agricultural education programs that ultimately led to the decision to teach agriculture. One participant (F4) originally wanted to teach social studies, but her agricultural teacher encouraged her to consider agricultural education. Another individual (M9) described his recruitment into the profession at the encouragement of agriculture teachers,

I always wanted to teach. I thought I was going to teach in history or PE. But I got into high school and got involved in FFA. And I got some pretty good encouragement from folks who were [in the] teaching profession and basically said, ‘Hey, young man, we really need your ass over here in Ag Ed and how about you take a look at that?’ And that turned [out to be] pretty solid advice, and I took them up on it, decided to become a major in Ag Ed...I haven't regretted it one bit.

A majority ($n = 13$) of the former teachers described their agriculture teacher as integral in changing their career path to that of education through being a positive role model. One woman (F2) described having an early calling to be a teacher, but through involvement in the agricultural program, switched her focus from elementary education to agricultural education,

I always knew I wanted to teach. Teaching was always a number one career choice before I even knew about ag education. Then I got into high school and had a fantastic ag teacher myself...Then I did my SAE on ag education and worked with my ag teacher all four years. By the time I graduated, I knew that it wasn't elementary school that I wanted to do, it was definitely high school ag education.

For some participants, there was not only a desire to influence youth positively and follow in the footsteps of their agriculture teachers, but they also expressed a desire to continue participation and involvement in the FFA and other agricultural education youth opportunities they enjoyed. One man (M4) directly indicated this wish of continued involvement, “It just seemed like a natural step and really piqued my interest as something that I'd like to do as far as teaching and staying involved with all the FFA activities...”

1.2 A desire to “pay forward” the positive experiences from previous involvement in agricultural education to positively influence society. This second theme delves into the prosocial behavior of providing beneficial experiences for others to positively impact broader society. Some participants directly indicated an eagerness to “pay it forward” from the growth and positive experiences their high school agricultural program or teacher provided so that they could provide the same for other young people. One man (M1) indicated he, “Wanted to make a difference...and [Ag Education] had been an underlying passion of mine for quite some time.” A woman (F1) described this ambition succinctly, “I went into being an ag teacher because of the impact that my ag teachers had on me growing up as well as I really was involved...in 4-H growing up.” One of the men (M6) described how agricultural education wrapped up several of his passions, including coaching and agriculture,

I just always enjoyed being around younger people. I enjoyed coaching. I enjoyed talking to different people, interacting with them. So, I just took the things that I really liked and enjoyed and tried to mold that into a career of some kind.

Former teachers, both men and women, expressed how their agriculture teacher was critical in their lives while in high school and the desire to have a similar relationship with future students. One man (M2) said, “Looking back, my ag teacher had such an influence on me. I was thinking about this the other day; I know when I had a graduation party one weekend that was one person I looked for to

be there.” One of the women (F3) described her desire to “make a difference” through “reconnecting with people and developing solid relationships.”

Objective 2 Themes

The goal of our second objective was to describe the reasons emphasized by former agriculture teachers in their decision to leave the high school agriculture classroom. Two themes revealed a personal conflict arising from a few different constructs, including unrealized expectations and the value of excellence in performance.

2.1 Unrealized expectations result in personal conflict when a teacher does not fulfill their idealized vision of a quality agricultural education program. All the participants described a personal conflict arising at some point when external expectations were placed on them, sometimes intuitively perceived and often concretely expressed by stakeholders. The perception or expression of these external expectations contributed to a lack of perceived autonomy on the part of the teachers. One woman (F1) describes this tension resulting from internal and external expectations,

I really felt like I was pushed to do, and it was probably a personal drive, but pushed to do so many community service activities and chapter activities, in addition to what's expected of you for the contest and specific as an FFA event.

One man (M3) described the overwhelming stress he experienced due to these expectations. He indicated, “It’s just the overall mental drain of never leaving the job. You’re always doing something.” Another man (M5) described being expected to work on holidays by community members and simultaneously feeling obligated to serve the community even though it went against his wishes,

I had a lady call and asked if we can have a petting zoo set up all day on the Fourth of July for their little community...So even the Fourth of July, an Ag teacher is just expected by the community to...put a petting zoo on. And most of us Ag teachers want to serve, and you got to have that community presence.

The same male participant (M5) described the pressure, not always concretely expressed by others, but felt by the teacher, to excel. “There was pressure to get proficiency awards, and do well at judging contests, and those types of things. Nothing directly, but it just...You know, expectations. Get stuff in the paper. Those kinds of things.” While a woman (F1) described a competitive environment with other teachers as being a key to the pressure felt, “...everything is a big competition with the other teachers.” Another woman (F3) indicated discomfort with some of the expectations put on her by others, “...have to deal with having a principal that wants you to do things that you don't feel comfortable with, or having parents that are upset with you about something that their kid is doing or not doing.”

The former teachers very explicitly described the idealized versions of the agricultural education profession and programs and they often followed up with stories of internal conflict that resulted when these ideals did not come to fruition. A woman (F1) described this idealized professional image,

Me saying, ‘We need to do these activities. And we've got to do well on our POA [Program of Activities]. And we've got to do all of these things.’ And I kind of set our standards really high. And, no, I don't think it was anybody pushing me. If anything, they would have rather me done better in my classroom.

Almost all the former teachers expressed a strong commitment to excellence, along with an intense discomfort with the areas in which they felt inadequate. One woman (F3) relayed that she never felt like she could manage to get ahead due to pressure to keep adding things to her plate,

I felt like by year five, I had finally gotten a handle on it. The thing that I did not have a handle on is, well every year, you're wanting to do more and more and more. And, it's hard to keep that pace for a long period of time. But, I guess, me as a person I just felt like I just needed to be the best I could be, and so I felt like I needed to keep adding those things on. And to keep being better and better, and so it kind of got, I think I just overwhelmed myself with the amount of things that I wanted to accomplish.

2.2 Belief that being an excellent agriculture teacher and having a satisfying personal life are incompatible goals. Nearly all the men and women interviewed relayed they were highly involved in the home and raising of children, which often came into conflict with their job. The former teachers expressed challenges in achieving a satisfying balance of personal and professional investment and success. One man (M5) described comparing himself to his agricultural teacher, whom he perceived to prioritize his career over his family,

I watched my Ag teacher...I watched him raise everybody else's kids, and make his kids sometimes feel like they were in the backseat, compared to his FFA kids. I can't let that happen to my own family...I don't know that it was that [dramatic]. You know, that family, his kids, are good, they're a real good family and everything. But you feel like you have to choose your school over your own family.

Other teachers described having difficulty in transitioning from the life of young, single teachers to that of teachers with partners and families. A woman described a shift in her priorities after becoming a mother, "But when life starts happening, that's when you start realizing, I'm putting way too much time into this job that I shouldn't be." Women were not alone in this shift of priorities, focus and even discomfort were expressed related to the amount of time spent working once life circumstances changed to include a partner and children. One of the men (M4) described marriage and fatherhood as precipitating his first thoughts of leaving the profession, "I started thinking about leaving when we got married and had our first child. It just seemed like there was more and more commitments at home and it put a lot of strain on both sides." Another of the male participants (M2) shared a feeling of resentment for the time he had to spend away from his family after getting married and having children,

But then after like year eight, I got married and had a family, then it got to the point to where I did not enjoy going to state convention anymore. I did not enjoy taking the bus trip to WLC [Washington Leadership Conference]. You know, just those things that I really enjoyed prior to a wife and kids, that I almost [now] despised going to it. I pretended I liked it, to the students, faculty, all of my Ag teacher friends. I pretended I like it. But deep down inside, I didn't. I was not happy.

One former male teacher (M6) described how in hindsight, his life in the corporate world is much more flexible than when he was a teacher, allowing him to fit life with his family and personal needs within his workday if needed. He seemingly described a perceived inflexibility of his workday as a teacher,

I remember there were times when I was teaching and coaching football, I could not find time to get a haircut. I couldn't find time to get my oil changed in my car. Teaching is such a rigorous schedule 'cause you're there from seven in the morning till four thirty at night. If you have an FFA event or football practice, then you were there later. Now I just have more freedom to be like, 'Hey, I'm getting my haircut at two o'clock in the afternoon today, and I won't be there.' If I need to take time off of work to go do things with my family or whatever, my schedule's a lot more flexible now than it was when I was teaching.

Objective 3 Theme

Through investigation of our third objective, the researchers sought to describe changes indicated by the former teachers as necessary to improve the retention of secondary agriculture teachers in Illinois. One theme emerged that seemed to draw consensus among the former agriculture teachers. All expressed a desire for additional support, in addition to implying the current model utilized in Illinois as not sustainable for most teachers in the profession.

3.1 Increased support for all teachers alongside a philosophical shift toward a more sustainable model and system of agricultural education statewide is necessary for teacher retention. The word “support” surfaced quite often when the former teachers described why they left and what needed to be changed to retain more teachers. While support was a commonly indicated need, exactly what type of support was needed was found to be varied among the former teachers when asked what additional help would have been beneficial. One man (M10) indicated he needed more prep time. He indicated, “A lot of what I did during my planning periods, wasn’t planning... it was cleaning up from the last class and getting things ready for the next class...it wasn’t time to sit down and work on lesson plans.” One woman (F1) discussed the need for better curriculum and expressing how overwhelming it was to create new content and trying to make her lessons more engaging. She indicated, “I was spending all of my time preparing new lessons and making lessons better...you don't realize how much extra work you added to your plate.” One man (M13) noted a desire for stronger support within his school. He directly stated that his administration “wouldn’t follow through with anything” and would often cave when confronted by parents. Another woman (F3) described a similar need for more support from administration specifically related to student behavior,

Another factor of leaving was the administration, I just feel like I wasn't supported when it came to discipline. It was kind of like you've got to deal with your own stuff, and I didn't have any help, and I felt like there was always a culture that I wasn't able to change... And inside too, incidents in the shop, and discipline issues that I did not enjoy dealing with.

One man (M2) revealed the high probability he would have never left the profession if he had additional assistance with his agricultural program and FFA chapter the last few years. He indicated that employment within a multiple-teacher program might have prevented him from leaving the profession,

I felt that [teaching was only] a part-time job and then the other...was preparing all the activities, all the paperwork, getting the school buses lined out, talking to the athletic director, all the FFA contests, the practices. I think if you could get help somehow...I know there's probably people leave that have two teacher programs too. But I just think if it's a one-teacher and you're all in, it's tough to balance everything. It was for me, obviously.

Furthermore, many of the former teachers described a need for a philosophical change of expectations of teachers within the Illinois agricultural education community. In Illinois, many of the FFA events occur outside of the typical school day, many of the participants indicated that reducing the number of such events would be beneficial. Some, such as the woman (F2) featured in the following quote, described a reduction of the number of days FFA events are held as being a necessity, “I do think it can be helpful trying to minimize the amount of days the teachers are having to go to events.” One of the men (M2) relayed how it seemed that more events were added to the list on a continual basis, with few ever being taken away resulting in a burgeoning calendar of events,

I created my own monster there, and the national FFA has created their own monster. We just keep adding things and not taking away anything. Because we don't wanna take away anything either. We like everything. But we just keep adding contests, adding opportunities for kids, which is great, but you're adding stuff to your plate, and there's only so many minutes and hours in a day for one person.

One former teacher (M9) provided the following advice, “I think culturally, we're going to have to get to a position to where we really say, you don't have to do everything. Right? You can concentrate on just a few things and still be amazing.” Moreover, several teachers suggested revamping the mentoring program and increasing professional development opportunities focusing on prioritization and time management strategies to help increase retention rates in the state.

Additionally, several former teachers commended the efforts of Illinois Agricultural Education and recognized the current state model has the potential for reform to increase retention rates. However, many admit a philosophical shift that prioritizes a reduced emphasis on the belief that agriculture teachers need to do everything to have a quality program will need to occur to ensure this happens. One teacher (M8) summed it up by indicating, “We've got a [good model] in Illinois... it's just a matter of restructuring it. We've got the support, institutionally. It's just not in the right shape right now.”

Discussion, Implications, and Recommendations

The purpose of this qualitative study was to identify reasons that would influence current agriculture teachers to stay in and former agriculture teachers to return to the profession. Several studies have attempted to determine retention/attrition influencers within agricultural education (Chenevey et al., 2008; Murray, Flowers, Croom, & Wilson, 2011; Rice et al., 2011; Tippens, Ricketts, Morgan, Navarro, & Flanders, 2013; Torres, Lawver, & Lambert, 2008; Walker et al., 2004), though few have exclusively investigated perceptions of former teachers (Lemons, Brashears, Burris, Meyers, & Price, 2015). Researchers in this study conducted personal interviews with 17 former agriculture teachers, who left the profession between 2008 and 2017, to provide rich, descriptive data examining retention and attrition variables within agricultural education. Based on the participants of the current study, we recommend the study of a sample including more alternatively licensed teachers to provide more specific information on the needed supports for these teachers. States with more prevalent attrition issues should consider conducting exit interviews or surveys for those teachers leaving the profession on an annual basis to have a more wholistic picture of teacher attrition.

Objective one assisted researchers with determining initial reasons one enters the agricultural education teaching profession. Findings revealed that the former agriculture teachers travel a variety of paths which all led into the secondary classroom. Most completed an agricultural education teacher preparation program and were traditionally-certified ($n = 15$, 88.2%) and two ($n = 2$, 11.8%) received an alternative licensure. Both alternatively-certified individuals worked within the agricultural industry before entering the classroom. Several traditionally-certified individuals discussed how agricultural education was not necessarily their first career choice, but through encouragement by key, influential people in their lives, they decided to pursue a career in the profession. Interestingly, most of these former teachers came from well-established high school agricultural education programs (as opposed to new programs or those with high teacher turnover) based on information provided in the quantitative questionnaire. Many divulged idealistic high school agriculture and FFA experiences, which inspired them to enter the profession. Additionally, due to those positive experiences, many felt a need to “give back” to the profession that provided them so much. Components of the themes from objective one, including a passion for agricultural education and FFA, were identified as reasons one enters the profession, have been observed in the current literature (Lemons et al., 2015).

One must consider if these former teachers had unrealistic expectations when accepting their first teaching position. Only having been exposed to outstanding programs with veteran teachers, it is plausible to believe these former teachers became easily frustrated when they could not recreate the idealized image they had once experienced. The unrealistic expectations and frustrations that arose when the former teachers did not meet these ideals mirrors components of Chapman's (1983) model. His suggestion regarding the quality of the first teaching experience and professional and social

integration in the profession are identified as key influencers in the decision to remain in or leave the profession.

Through anecdotal evidence obtained via informal conversations, a common practice of teacher education programs is to encourage their preservice teachers only to observe the more experienced and outstanding teachers in the field. This over-exposure to excellent and outstanding experienced teachers seems to be contributing to a highly unrealistic, idealized version of what a novice teacher will look like in the classroom and be able to accomplish as an FFA advisor. According to the literature, these unrealized expectations may lead to symptoms of depression (Reynolds & Baird, 2010) throughout a career, which may contribute to novice teachers leaving the profession.

Teacher preparation programs should continue to be vigilant in seeking to provide a quality clinical teaching experience for student teachers due to the importance of this event in a preservice teacher's development. Our findings lead us to consider being more cautious when allowing preservice teachers to only visit exemplary agricultural education programs with established teachers. We recommend that future teachers observe younger, less experienced teachers, in addition to experienced teachers, so that preservice teachers can see real-life examples of novice teachers. This exposure to younger teachers who do not make everything appear effortless and have occasional struggles will hopefully help the preservice teachers build a more realistic vision and expectations for who they will be as beginning teachers. A quasi-experimental study of how exposure to teachers across the experience range influences a preservice teacher's development could greatly inform best-practices in teacher education.

Objective two sought to determine the primary factors influencing former agriculture teachers' decision to leave the profession; analysis revealed themes stemming from unrealized expectations and the belief that being an excellent agriculture teacher is incompatible with a personal life that is satisfying. Several former teachers discussed the pressure they felt to do more outside of the classroom and typical instructional day. Interestingly, many admitted their personality and drive were the primary influencers, and they were rarely pressured explicitly by external stakeholders to take on these additional tasks.

Several former teachers disclosed they had a difficult time telling various stakeholders "no" when asked to participate in additional activities. Turning down these opportunities seemed increasingly difficult for novice teachers who stepped into a well-established program. Anecdotally, future and young teachers often refer to "filling the shoes" of the former teacher, who may have been highly seasoned and had many years to build the program. The profession needs to make a shift in teacher education and among teachers to change conversations surrounding novice teachers. We, as a profession, should not be encouraging novice teachers to fill anyone's "shoes," but for novice teachers to build their programs slowly so that they can achieve a more sustainable balance and allow for prioritization of both professional and personal needs and goals. The larger professional discussion and debate that is needed in the field relates to how the various stakeholders in agricultural education contribute to this "bigger/more is better" philosophy in young teachers and exactly *how* do we initiate and facilitate this cultural shift toward sustainability.

As the former teachers discussed these expectations, many disclosed the additional time needed to complete these activities were at the expense of their personal lives. The hours put in as an agriculture teacher forced these former teachers to question the viability of their current position and reevaluate their career choice. The excessive hours and responsibilities beyond the school day have been listed as a prevalent variable in an agriculture teachers' struggle to attain a work-life balance (Hainline, Ulmer, Ritz, Burris, & Gibson, 2015; Lambert, Henry, & Tummons, 2011; Murray, Flowers, Croom, & Wilson, 2011; Sorensen et al. 2016; Torres et al., 2008). Interestingly, in our study this

factor was deemed enormously influential by both novice and experienced teachers. However, those individuals with young families indicated the excessive hours worked were the most influential factor in their decision to leave, and that they just wanted their time back.

To address objective three, researchers asked the former teachers for recommendations on fixing the teacher attrition problem. Each one indicated the need for some additional support alongside a philosophical shift in the profession that dictates “more is not always better.” Many indicated a desire to work in a multi-teacher program to distribute the heavy workload. Others recommended engaging with various stakeholders (e.g., alumni, parents, advisory council) and requesting assistance from those groups. Overwhelmingly, they agreed the amount of time spent at work beyond the regular workday has to decrease for the job to be sustainable for most people, particularly those with young families. In light of these findings, we pose the question: Would a part-time assistant who helped exclusively with FFA and after-school-hours activities provide the support needed to help with distribution of workload for single teacher programs? The invested stakeholders, especially those groups with policy-making power, should prioritize endeavors that provide support in the form of human capital to allow especially novice teachers the opportunity to focus on fewer responsibilities at one time.

Several former teachers suggested a complete overhaul of the state’s mentoring program, for both novice and mid-career agriculture educators. The former teachers also recommended increasing professional development opportunities on achieving a work-life balance with a focus on prioritization and time management strategies. Specifically, one teacher disclosed the importance of differentiating professional development for various career stages, and to cater to the personal and professional needs of subgroups. Moreover, additional training and professional development for provisionally-licensed teachers were suggested to assist in making the transition into teaching secondary agricultural education. Full-disclosure of the job responsibilities to provisional teachers was also recommended to provide a more realistic view of the job they were taking on.

We recommend that state agricultural education policymakers and other leaders in the profession be cognizant of the additional expectations and pressures they place on teachers. Modification of essential deadlines and consolidation of events should also be considered to reduce the number of events and activities outside of the typical school day, which will also reduce travel time and preparation for travel. Additionally, the researchers recommend continuing this longitudinal study by developing an exit survey for teachers leaving the profession. Yearly follow-ups with those individuals are suggested to determine if trends are maintaining or changing, requiring recalibration for retention efforts. Furthermore, it is recommended this research be replicated in other states to identify similarities and differences of attrition variables. Interestingly, the recommendations related to revisions to the mentoring program had mostly already been enacted in more recent years in the state, following the exit of many of these former teachers. We recommend the follow-up data for retention/attrition of novice teachers be considered specifically within the context of before and after the implementation of the new program to help determine effectiveness and in consideration of future planning.

The findings from this study will help to inform conversations at various levels within the state of Illinois related to teacher retention efforts. Using the information gained from this study to guide policy and cultural change within Illinois Agricultural Education has the potential to help elicit changes that move the profession toward a more sustainable model that will hopefully create a more attractive profession to young people as they consider their future careers.

Limitations

There are limitations to this study of former agriculture teachers that primarily result from the limited sample size ($n = 17$) and the nature of the sample being drawn from only one state in the United

States. We recommend this study be continued on a larger scale with participants from a variety of regions and states to examine similarities and differences at those levels. Further study of leavers who were alternatively licensed is needed to determine if separate retention efforts are needed based on the path to licensure as only two participants in the current study were alternatively licensed. The participants were asked to recall their thoughts and feelings on events sometimes several years in the past, which can be subject to self-report data biases of selective memory, telescoping (recalling incorrect timelines), attribution (positive outcomes attributed to personal agency while negative events attributed to external sources), and exaggeration (embellishing) (McGregor, 2018). Ideally, we would recommend that a study collect this data on an annual basis to more accurately capture the sentiments and emotions surrounding the departure from agricultural education as a career.

References

- Allegretto, S., Corcoran, S., & Mishel, L. (2008). *The teaching penalty: Teacher pay losing ground*. Washington DC: Economic Policy Institute.
- Blackburn, J. J., Bunch, J. C., & Haynes, J. C. (2017). Assessing the relationship of teacher self-efficacy, job satisfaction, and perception of work-life balance of Louisiana agriculture teachers. *Journal of Agricultural Education*, 58(1), 14-35. doi: 10.5032/jae.2017.01014
- Blackburn, J. J., & Robinson, J. S. (2008). Assessing teacher self-efficacy and job satisfaction of early career agriculture teachers in Kentucky. *Journal of Agricultural Education*, 49(3), 1-11. doi:10.5032/jae.2008.03001
- Boone, H. N., & Boone, D. A. (2007). Problems faced by high school agricultural education teachers. *Journal of Agricultural Education*, 48(2), 36-45. doi:10.5032/jae.2007.02036
- Boone, H. N., & Boone, D. A. (2009). An assessment of problems faced by high school agricultural education teachers. *Journal of Agricultural Education*, 50(1), 21-32. doi:10.5032/jae.2009.01021
- Cano, J., & Miller, G. (1992). A gender analysis of job satisfaction, job satisfier factors, and job dissatisfier factors of agricultural education teachers. *Journal of Agricultural Education*, 33(3), 40-46. doi:10.5032/jae.1992.03040
- Castillo, J. X., & Cano, J. (1999). A comparative analysis of Ohio agriculture teachers' level of job satisfaction. *Journal of Agricultural Education*, 40(4), 67-79. doi:10.5032/jae.1999.04067
- Chapman, D. W. (1983). A model of the influences on teacher retention. *Journal of Teacher Education*, 34(5), 43-49. doi:10.1177/002248718303400512
- Chapman, D. W. (1984). The test of a model. *American Educational Research Journal*, 21(3), 645-658. doi:10.3102/00028312021003645
- Chenevey, J. L., Ewing, J. C., & Whittington, M. S. (2008). Teacher burnout and job satisfaction among agricultural education teachers. *Journal of Agricultural Education*, 49(3), 12-22. doi:10.5032/jae.2008.03012
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.

- Crutchfield, N., Ritz, R. & Burris, S. (2013). Why agricultural educators remain in the classroom. *Journal of Agricultural Education*, 54(2), 1-14. doi:10.5032/jae.2013.02001
- Darling-Hammond, L. (2000). How teacher education matters. *Journal of Teacher Education*, 51(3), 166. doi:10.1177/0022487100051003002
- Gilman, D., Peake, J. B., & Parr, B. (2012). A gender analysis of job satisfaction levels of agricultural education teachers in Georgia. *Journal of Career and Technical Education*, 27(2), 98-113. doi: 10.21061/jcte.v27i2.715
- Haynes, M. (2014). *On the path to equity: Improving the effectiveness of beginning teachers*. Retrieved from <http://all4ed.org/reports-factsheets/path-to-equity/>
- Illinois Ag Ed Report (2014). *2014 Illinois Agricultural Education Report*. Retrieved from <http://www.AgriculturalEducation.org/files/IllinoisAgEdAnnualReport>.
- Ingersoll, R., Merrill, L., & May, H. (2014). *What are the effects of teacher education and preparation on beginning teacher attrition*. Research Report (#RR-82). Philadelphia: Consortium for Policy Research in Education, University of Pennsylvania.
- Ingersoll, R., Merrill, L., & Stuckey, D. (2014). *Seven trends: The transformation of the teaching force, updated April 2014*. CPRE Report (#RR-80). Philadelphia: Consortium for Policy Research in Education, University of Pennsylvania.
- 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. Retrieved from <http://www.naae.org/teachag/2010%20AAAE%20Supply%20Demand%20Study.pdf>
- Kitchel T., Smith, A. R., Henry, A. L., Robinson, J. S., Lawver, R. G., Park, T. D., & Schell, A. (2012). Teacher job satisfaction and burnout viewed through social comparisons. *Journal of Agricultural Education*, 53(1), 31-44. doi:10.5032/jae.2012.01031
- Knobloch, N. A., & Whittington, M. S. (2003). Differences in teacher efficacy related to career commitment of novice agriculture teachers. *Journal of Career and Technical Education*, 20(1), 87-98. doi:10.21061/jcte.v20i1.625
- Krumboltz, J. D. (1979). A social learning theory of career decision making. Revised and reprinted in A. M. Mitchell, G. B. Jones, and J. D. Krumboltz (Eds.), *Social learning and career decision making* (pp. 19-49). Cranston, RI: Carroll Press.
- Lemons, L. L., Brashears, M. T., Burris, S., Meyers, C., & Price, M. A. (2015). Factors contributing to attrition as reporters by leavers of secondary agriculture programs. *Journal of Agricultural Education*, 56(4), 17-30. doi:10.5032/jae.2015.04017
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- McGregory, S.L.T. (2018). *Understanding and evaluating research: A critical guide*. Thousand Oaks, CA. 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), 107-117. doi:10.5032/jae.2011.02107
- Reynolds, J. R., & Baird, C. L. (2010). Is there a downside to shooting for the stars? Unrealized educational expectations and symptoms of depression. *American Sociological Review, 75*(1), 151-172. doi:10.1177/0003122409357064
- Rice, J. E., LaVergne, D. D., & Gartin, S. A. (2011). Agricultural teacher perceptions of school components as motivational factors to continue teaching and demotivational factors to discontinue teaching. *Journal of Career and Technical Education, 26*(2), 105-115. doi:10.21061/jcte.v26i2.529
- Robinson, J. S., & Edwards, M. C. (2012). Assessing the teacher self-efficacy of agriculture instructors and their early career employment status: A comparison of certification types. *Journal of Agricultural Education, 53*(1), 150-161. doi: 10.5032/jae.2012.01150
- Ronfeldt, M., Loeb, S., & Wyckoff, J. (2012). How teacher turnover harms student achievement. *American Educational Research Journal, 50*(1), 4-36. doi: 10.3102/0002831212463813
- Sanders, W. L., & Rivers, J. C. (1996). *Cumulative and residual effects of teachers on future student academic achievement* (Research Progress Report). Knoxville, TN: University of Tennessee Value-Added Research and Assessment Center.
- Smith, A. R., Lawver, R. G., & Roster, D. D. (2017). *National agricultural education supply and demand study, 2016 executive summary*. Retrieved from <http://aaaeonline.org/Resources/Documents/NSD2016Summary.pdf>
- Sorensen, T. J. & McKim, A. J. (2014). Perceived work-life balance ability, job satisfaction, and professional commitment among agriculture teachers. *Journal of Agricultural Education, 55*(4), 116-132. doi: 10.5032/jae.2014.04116
- Sorensen, T. J., McKim, A. J., & Velez, J. J. (2016). A national study of work-family balance and job satisfaction among agriculture teachers. *Journal of Agricultural Education, 57*(4), 146-159. doi: 10.5032/jae.2016.04146
- Stripling, C. T., & Ricketts, J. C. (2016). Research priority 3: Sufficient scientific and professional workforce that addresses the challenges of the 21st century. *American Association for Agricultural Education national research agenda: 2016-2020*. Gainesville, FL: Department of Agricultural Education and Communication.
- Stronge, J. H. (2007). *Qualities of effective teachers: Second edition*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.* Palo Alto, CA: Learning Policy Institute. ^[1]_[SEP]
- Swan, B. G., Wolf, K. J. & Cano, J. (2011). Changes in teacher self-efficacy from the

- student teaching experience through the third year of teaching. *Journal of Agricultural Education*, 52(2), 128-139. doi:10.5032/jae.2011.02128
- Thobega, M., & Miller, G. (2003). Relationship of instructional supervision with agriculture teachers' job satisfaction and their intention to remain in the teaching profession. *Journal of Agricultural Education*, 44(4), 57-66. doi: 10.5032/jae.2003.04057
- Tippens, A., Ricketts, J. C., Morgan, A. C., Novarro, M., & Flanders, F. B. (2013). Factors related to teachers' intention to leave the classroom early. *Journal of Agricultural Education*, 54(4), 58-72. doi:10.5032/jae.2013.04058
- Walker, W. D., Garton, B. L., & Kitchel, T. J. (2004). Job satisfaction and retention of secondary agriculture teachers. *Journal of Agricultural Education*, 45(2), 28-38. doi: 10.5032/jae.2004.02028
- Warnick, B. K., Thompson, G. W., & Tarpley, R. S. (2010). Characteristics of beginning agriculture teachers and their commitment to teaching. *Journal of Agricultural Education*, 51(2), 59-69. doi:10.5032/jae.2010.02059
- Wolf, K. J. (2011). Agricultural education perceived teachers' self-efficacy: A descriptive Study of beginning agricultural education teachers. *Journal of Agricultural Education*, 52(2), 163-176. doi:10.5032/jae.2011.02163