

# Factors Influencing the Decision of Illinois School-based Agricultural Education Teachers to Remain in the Profession

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## Abstract

*Due to the overwhelming number of teachers exiting the profession each year, recruitment and retention efforts continue to be a high priority for stakeholders within agricultural education. Specifically, teacher attrition has been identified as one of the leading problematic issues hindering growth of school-based agricultural education (SBAE) programs in the United States. Researchers tell us reducing teacher attrition rates could be a key factor in balancing supply and demand within the profession. Unlike many previous studies that have examined why teachers leave the profession, the purpose of our study was to investigate factors that contribute to a SBAE teacher's decision to remain in the profession. We designed and administered an electronic questionnaire to describe leading factors impacting an Illinois agriculture teachers' decision to remain in the profession and determine if significant differences existed among teachers in their various professional career stages. Among all teachers, personal influences and working conditions were found to be most influential in a teacher's decision to remain in the profession. Several significant differences were discovered among groups, with most factors belonging within the compensation construct. Guidance on how to increase SBAE teacher retention rates and recommendations for future research are included.*

**Keywords:** teacher retention; teacher attrition; agricultural education; career stages; personal influences; working conditions; compensation

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## Introduction

There is little doubt teacher attrition continues to be an issue that spans all grade levels and disciplines within public education. With teachers choosing to permanently leave the profession, the challenge to recruit and retain teachers has never been greater. Sutchter et al. (2016) suggested a shortfall of 112,000 educators per year is expected if trends continue. This projection is further supported by earlier reports suggesting a chronic issue of teacher retention in the United States with 41% of teachers nationwide choosing to leave the profession during their first five years in the classroom (Ingersoll et al., 2014). This critical issue has led to school districts nationwide failing to fill teaching vacancies and often leaving positions open at the start of the school year. This has been shown to not only have a

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negative influence on student achievement (Ronfeldt et al., 2012) but also carries with it sizable financial implications for school districts (Haynes, 2014).

The issue of teacher attrition is not new to school-based agricultural education (SBAE) with a documented unavailability of highly qualified teachers existing for more than 40 years (Camp et al., 2002; Foster et al., 2020; Kantrovich, 2010). The most recent *Executive Summary of the National Agricultural Education Supply and Demand Study* suggests this trend will continue (Foster et al., 2020). Based on data provided from 95 teacher education programs in 2019, Foster et al. (2020) reported there were 904 license eligible program completers; yet, additional teachers were still needed to meet the national demand. This shortage coupled with 605 SBAE who taught in the 2018-2019 school year but not retained for the 2019-2020 school year resulted in 60 full-time vacancies remaining unfilled across the nation (Foster et al., 2020).

Following these national trends, the state of Illinois consistently reports a shortage of agricultural education graduates relative to annual openings. In 2018, Illinois had 81 SBAE teacher openings across the state while only 28 students completed degrees that year (Illinois Annual Ag Ed Report, 2019). This disparity has resulted in 30% of current Illinois SBAE teachers being provisionally or alternatively certified (Illinois Annual Ag Ed Report, 2019). It has been suggested attrition is the principle driver of the ongoing teacher shortage (Sutcher et al., 2016). Further, Sutcher et al. (2016) stated, “Reducing attrition would actually make a greater difference in balancing supply and demand than any other intervention” (p. 37).

Many efforts have been made to identify factors leading to teacher attrition within SBAE (Blackburn & Robinson, 2008; Blackburn et al., 2017; Boone & Boone 2007; Boone & Boone 2009; Castillo & Cano, 1999; Chenevey et al., 2008; Croom, 2003; Hainline et al., 2015; Hasselquist et al., 2017; Kelsey, 2006; Kitchel et al., 2012; Knobloch & Whittington, 2003; Lambert et al., 2011; Lemons et al., 2015; McKim & Valez, 2015; Mundt & Conners, 1999; Murray et al., 2011; Myers et al., 2005; Solomonson et al., 2018; Solomonson et al., 2019; Solomonson & Retallick, 2018; Sorenson et al., 2016a; Sorenson et al., 2016b; Tippens et al., 2013; Walker et al., 2004; Wolf, 2011). However, few studies have focused on teacher retention and why SBAE teachers remain in their current professions (Clark et al., 2014; Crutchfield et al., 2013, Rice et al., 2011, Thobega & Miller, 2003; Warnick et al., 2010). Inman and Marlow (2004) have suggested:

while accurate measures of teacher attrition are important if school systems, administrators, and potential teachers are to effectively plan for the coming years, the need to identify factors which cause teachers to remain in the profession is perhaps of greater importance. (p. 605)

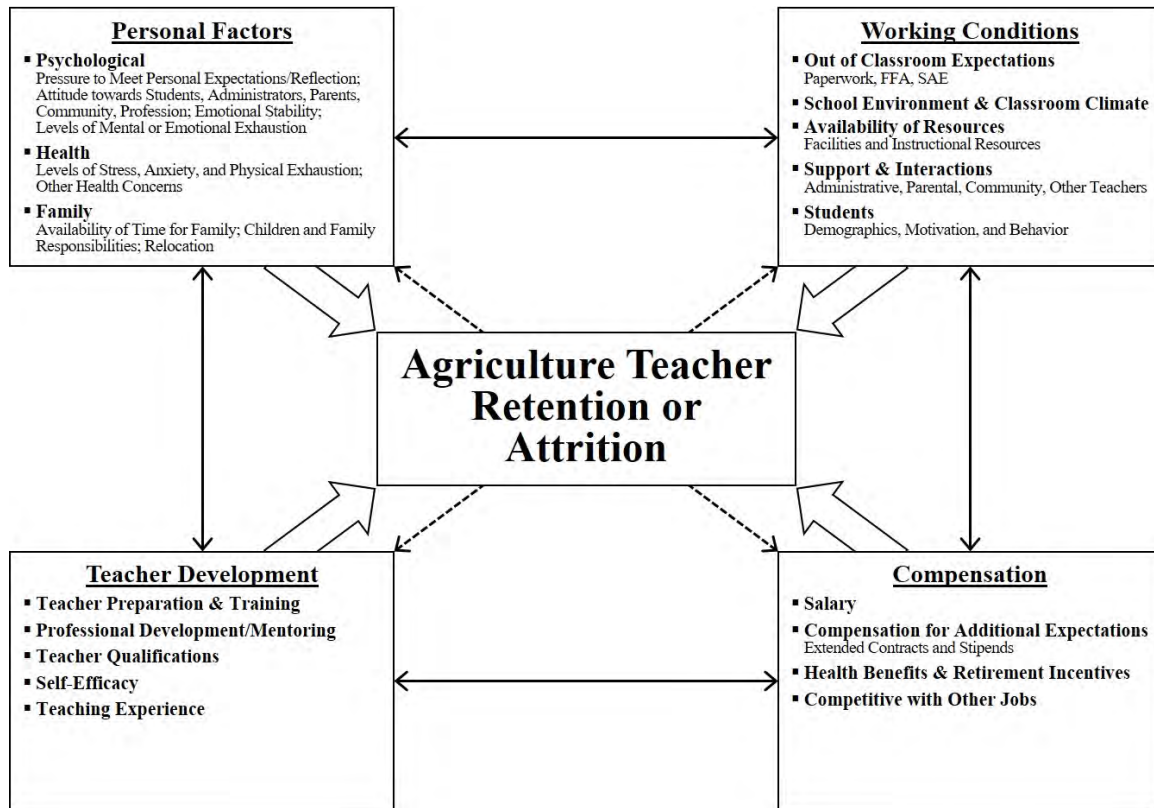
Our study was designed to help fill this gap in the literature and identify specific factors influencing a SBAE teachers’ decision to remain in the profession.

### **Conceptual Framework and Literature Review**

The conceptual framework used for this study was from research conducted by Solomonson et al. (2018). The agriculture teacher retention/attrition model (see Figure 1) proposed one or more job-specific variables within one or more of their four constructs of influence may impact SBAE teacher retention/attrition. The four constructs of influence presented in the model are: (1) personal factors, (2) working conditions, (3) compensation, and (4) teacher development. When a SBAE teacher weighs leaving for other opportunities or staying in the profession, the four constructs have been shown to affect their decision-making process (Solomonson et al., 2018). The four constructs can be thought of as in-flux, shifting in importance from teacher to teacher during their professional career.

Figure 1

*Conceptual Model of Variables Influencing an Agriculture Teacher's Decision to Leave or Remain in the Profession*



### Personal Factors

Issues related to personal factors are often major reasons teachers leave the profession (Ingersoll & Smith, 2003). Categories of personal factors that contribute to teachers' decisions to leave the teaching profession include family factors, personal health, and psychological reasons. The teaching profession has been previously described as "emotionally taxing and potentially frustrating" (Lambert et al., 2006, p. 105), which can eventually lead to stress and burnout, major contributors to teacher attrition (Chenevey et al., 2008; Croom, 2003; Kitchel et al., 2012; Myers et al., 2005). Common stressors of SBAE teachers include: (1) excessive paperwork, (2) interacting with administration, (3) classroom management, (4) motivating students, (5) discipline problems, (6) establishing support for the program, (7) maintaining facilities and equipment, (8) time management concerns, (9) managing the FFA chapter, and (10) excessive out-of-classroom expectations (Boone & Boone, 2007; Boone & Boone, 2009; Mundt & Connors, 1999; Myers et al., 2005; Solomonson et al., 2018). These stressors and additional responsibilities can lead to difficulty finding an appropriate work-life balance (Blackburn et al., 2017; Murray et al., 2011; Sorenson et al., 2016a; Sorenson et al., 2016b). Solomonson et al. (2018) identified family or personal reasons as the leading factor in a SBAE teacher's decision to leave the profession.

## **Working Conditions**

Poor or challenging working conditions and frustration associated with the school environment have been identified as significant factors in a teacher's decision to leave the profession (Sucher et al., 2016). Instructional responsibilities outside the normal school day are consistently cited as a reason for a teacher's decision to leave the teaching profession (Maslach et al., 2001; Solomonson et al., 2018). Visiting students for Supervised Agricultural Experiences (SAEs), running or attending FFA Career Development Events (CDEs), planning and hosting awards banquets, traveling to purchase livestock, and participating in leadership conferences at the local, state, and national level are just a handful of activities SBAE teachers are responsible for on a regular basis (Hainline et al., 2015; Lambert et al., 2011; Murray et al., 2011; Torres et al., 2008). Furthermore, lack of administrative support is commonly cited as a disincentive to teachers persisting in the field (Kelsey, 2006; Sutchter et al., 2016; Walker et al., 2004) while positive administrative support tends to motivate teachers to stay in the profession (Clark et al., 2014; Rice et al., 2001).

## **Compensation**

SBAE teachers are in high demand and their varied skill sets are a good fit not only for teaching but for other careers within the agricultural industry as well. Some SBAE teachers leave teaching for other positions because of factors associated with compensation, such as salary, health benefits, retirement plans, and extended contracts (Solomonson et al., 2018). Feelings associated with adequate and fair compensation have been shown to be an important factor associated with teacher retention (Boone & Boone, 2009; Johnson & Birkeland, 2003; Lemons et al., 2015; Solomonson et al., 2019). Ingersoll and Smith (2003) found more than three-quarters of teachers sampled who left the profession were dissatisfied with their salary. Allen (2005) confirmed most educational research supports the notion that increased compensation would help to retain quality teachers.

## **Teacher Development**

Preservice and practicing teacher development activities play an instrumental role in teacher retention. These include sufficient preservice preparation, adequate professional development, and purposeful induction activities for teachers (Haynes, 2014; Ingersoll, 2003; Krasnoff, 2014). According to Darling-Hammond et al. (2002), teachers' feelings of preparedness are strongly correlated to their intention to stay in the profession. Perceived high levels of self-efficacy (Knobloch & Whittington, 2003) and career commitment (Crutchfield et al., 2013; Swan et al., 2011) are also good predictors of a teacher's decision to remain in the profession. Additionally, if a teacher remains in the profession more than five years the likelihood of them leaving declines dramatically (Allen, 2005).

## **Purpose and Objectives**

The purpose of this study was to examine multiple factors that contribute to Illinois SBAE teacher retention. The specific objectives of this study were to:

1. Describe the personal and professional characteristics of Illinois SBAE teachers who choose to remain in the profession.
2. Describe the leading factors influencing the decision of Illinois SBAE teachers to remain in the profession.
3. Determine differences among early-career, mid-career, and late-career Illinois SBAE teachers regarding their decisions to remain in the profession.

The need for this study was guided by the American Association for Agricultural Education's (AAAAE) National Research Agenda, Research Priority 3: Sufficient Scientific and Professional Workforce that Addresses the Challenges of the 21st Century (Roberts et al., 2016), 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).

### Methodology

This descriptive study sought to identify and examine factors contributing to SBAE teacher retention in Illinois. Using Qualtrics, we designed an electronic questionnaire to address our research objectives. The instrument consisted of two parts: (1) factors impacting teachers' decision to remain in the classroom and (2) teacher demographics. Part one was divided into four sections derived from the four constructs of influence (*Teacher Development, Working Conditions, Compensation, and Personal Factors*) presented in our conceptual model. This part consisted of 37 items using a five-point Likert-type scale, with one being *does not impact* to five being *strongly impacts*. Part two consisted of 14 questions related to teacher demographics. A panel of experts consisting of three state-level SBAE staff and two university agricultural education teacher educators evaluated the instrument for face, content, and construct validity prior to distributing the instrument as a pilot study. Based on their recommendations, adjustments were made to the instrument. Specific alterations included improving clarity and readability of a demographic question and two variable questions.

Hill (1998) suggests between 10 and 30 participants are needed for pilot studies in survey research. After changes were made and receiving final approval from the Illinois State University Institutional Review Board (IRB), a pilot study was conducted with 30 current SBAE teachers from a neighboring state. Using pilot study data, we used Cronbach's alpha estimates of internal consistency to calculate for reliability of the factors within the four constructs within our instrument. Reliability estimates from the pilot test indicated coefficients of .74 (Personal Factors), .78 (Teacher Development), .88 (Working Conditions), and .83 (Compensation). Reliability estimates from the pilot test indicated "acceptable" internal consistency for the instrument per Nunnally (1978).

Using a census study design, we used Qualtrics to send our questionnaire to all 432 full-time SBAE teachers in Illinois in June of 2020. Contact information for our population was obtained through the online Illinois SBAE teacher directory. Using Dillman et al.'s (2014) tailored-design method, we scheduled five points of contact during the four-week data collection period. This included an initial email sent just prior to our data collection period to explain the purpose of the study and invite our intended population to participate. This was followed by three weekly emails and finally an invitation / reminder to complete the electronic questionnaire at the 2020 virtual Illinois Association of Vocational Agriculture Teachers summer conference. We were able to collect usable data from 208 questionnaires during this period, resulting in a 48.2% response rate. We addressed non-response error by comparing early and late respondents (Lindner et al., 2001). When comparing the mean responses of the 37 teacher retention items between early and late respondents, we found no significant differences ( $p < .05$ ) between the two groups.

We analyzed all data using the IBM Statistical Package for the Social Sciences (SPSS®) program version 24.0. To address objectives one and two, descriptive data were reported using frequencies, percentages, medians, modes, means, and standard deviations. To analyze objective three, a Kruskal-Wallis H Test was performed to compare differences among early-career, mid-career, and late-career SBAE teachers on their decision to remain in the profession. As we discovered several significant differences among the groups, Mann-Whitney U tests were conducted to identify where the

differences lie. These tests were deemed appropriate for Likert scale and Likert-type data per the recommendations provided by Boone and Boone (2012).

## Findings

### Objective 1

Descriptive statistics were analyzed to describe the personal and professional characteristics of Illinois SBAE teachers who chose to remain in the profession. Of those responding, 92.8% ( $n = 193$ ) identified as White, non-Hispanic. More than half ( $n = 117$ ; 56.3%) identified as female while 36.5% ( $n = 76$ ) identified as male. Among the participants, 32.2% ( $n = 37$ ) were 30 years of age or younger, 27.0% ( $n = 56$ ) were between 31-40, 20.0% ( $n = 41$ ) were between 41-50, and 15.0% ( $n = 31$ ) were more than 51 years of age. Furthermore, 78.9% ( $n = 164$ ) indicated being married or in a relationship while 61.1% ( $n = 127$ ) reported having children.

Approximately one-third ( $n = 70$ ; 33.7%) of participants reported earning a graduate degree and 26.9% ( $n = 56$ ) indicated being CASE (Curriculum for Agricultural Science Education) -certified. Almost eighty percent ( $n = 164$ ; 78.8%) were traditionally-certified by successfully completing requirements for a Professional Educator License (PEL) through the state of Illinois. Of the respondents, 76% ( $n = 158$ ) reported teaching in a rural community and 61.5% ( $n = 128$ ) teaching in a single-teacher program. Regarding yearly salary, only 7.3% ( $n = 15$ ) reported earning less than \$40,000, with 25.0% ( $n = 52$ ) earning between \$40,000-49,999, 17.8% ( $n = 37$ ) between \$50,000-59,999, 15.9% ( $n = 33$ ) between \$60,000-\$69,999, and 27.9% ( $n = 58$ ) earning above \$70,000, respectively. Over half of teachers ( $n = 106$ ; 51%) were on a 12-month teaching contract while only 12% ( $n = 25$ ) reported having no extended contract.

Among the respondents, the average number of years teaching experience was 12. According to the Professional Agriculture Teacher Life Cycle Stages (Solomonson & Retallick, 2018), approximately one-third ( $n = 70$ ; 33.7%) of participants would be considered novice teachers, 28.4% ( $n = 59$ ) would be mid-career, and 31.7% ( $n = 66$ ) late-career. Additional selected personal and professional characteristics are detailed in Table 1.

**Table 1**

*Selected Demographic Data of Responding Illinois SBAE Teachers ( $n = 208$ )*

Variable	<i>f</i>	%
Gender		
Male	76	36.5%
Female	117	56.3%
Did not Disclose	15	7.2%
Age		
≤ 30	67	32.2%
31-40	56	27.0%
41-50	41	20.0%
51 +	31	15.0%
Did not Disclose	13	6.3%
Relationship Status		
Single	24	11.5%
In a relationship, but not married	22	10.6%
Married	142	68.3%

**Table 1***Selected Demographic Data of Responding Illinois SBAE Teachers (n = 208), Continued...*

Divorced/Widowed	5	2.4%
Did not Disclose	16	7.7%
Have Children		
Yes	127	61.1%
No	68	32.7%
Did not Disclose	13	6.3%
Type of Licensure		
Fully-State Certified- Professional Educator License	164	78.8%
Alternative-Certified- Educator License with Stipulations	31	14.9%
Did not Disclose	13	6.3%
Years of Experience (Professional Life Cycle)		
Novice (5 or less years)	70	33.7%
Mid-Career (6-15 years)	59	28.4%
Late-Career (16+ years)	66	31.7%
Did not Disclose	13	6.3%
Length of Teaching Contract		
9 months	25	12.0%
Between 9 1/2 and 11 1/2 months	64	36.1%
12 months	106	51%
Did not Disclose	13	6.3%
Number of Ag Teachers in Department		
One	128	61.5%
Two or More	67	32.2%
Did not Disclose	13	6.3%

**Objective 2**

To describe the leading retention factors influencing the decision of Illinois SBAE teachers to remain in the profession, participants were asked to rate each impact variable using a five-point Likert-type scale, with one being *does not impact* to five being *strongly impacts*. We found that within our four constructs of influence presented in our conceptual model, *personal influences* impacted an Illinois SBAE teachers' decision to remain in the profession the most ( $M = 4.37$ ,  $SD = 0.19$ ) while *compensation* was deemed least influential among the four constructs ( $M = 3.49$ ,  $SD = 0.59$ ). Table 2 details the descriptive data for each of the four constructs of influence.

**Table 2***Agriculture Teacher Retention Constructs of Influence and their Impact on Illinois SBAE Teachers' Decision to Remain in the Profession (n = 208)*

Variable	<i>M</i>	<i>SD</i>
Personal Influences	4.37	0.19
Working Conditions	4.26	0.21
Teacher Development Factors	3.85	0.61
Compensation	3.49	0.59

*Note.* Based upon a 5-point Likert-type scale with impact increasing as values increase.

In addition to examining the four constructs of influence, we wanted to identify specific retention factors within the constructs that influenced an Illinois SBAE teacher's decision to stay in the profession. All retention factors where 50% or more of participants selected *strongly impacted* are listed in Table 3. When examining all variables, retention factors falling below our 50% threshold, in descending order, included: attitude towards administration, interactions with other agriculture teachers, perceived classroom management abilities, interactions with parents and community members, responsibilities as the FFA advisor, school facilities, accessible instructional resources, mentoring from other agriculture teachers, attitude towards parents and community members, tenure, years of teaching experience, current salary, future retirement benefits, insurance benefits, having a competitive salary, participation in a traditional university teacher preparation program, FFA stipend, professional development, mentoring from other teachers in my building, number of annual paid sick and personal days, completed graduate coursework, student loan forgiveness programs, and school district reimbursement for graduate courses.

**Table 3**

*Top Retention Factors Impacting an Illinois SBAE Teachers' Decision to Remain in the Profession (n = 208)*

Variable	SI %	Mdn	Md	M	SD
Teacher's Ability to Engage Students	75.5	5	5	4.65	0.692
Having a Supportive Family	71.7	5	5	4.53	0.894
Supportive School Building Administration & School Board	71.0	5	5	4.62	0.656
Teacher's Attitude Towards Students	69.7	5	5	4.58	0.757
Employment Location	68.3	5	5	4.52	0.816
Positive School Environment	68.1	5	5	4.57	0.760
Confidence Level to Adequately Teach Students	62.5	5	5	4.56	0.657
Meeting Personal Expectations as a Teacher	59.1	5	5	4.44	0.826
Confidence Level to Adequately Teach the Curriculum	57.7	5	5	4.48	0.729
Highly Motivated Students	52.4	5	5	4.29	0.916
3 Circles Grant/Extended Contract	51.4	5	5	4.00	1.347
Possessing a High Level of Autonomy at School	51.2	5	5	4.29	0.925

*Note.* Five-point Likert-type scale with 1= Did not Impact and 5= Strongly Impacted. SI %= percentage of those indicating the factor *strongly impacted* their decision to stay; *Mdn* = Median; *Md* = Mode; *M* = Mean; *SD* = Standard deviation.

### Objective 3

To determine differences among early-career, mid-career, and late-career Illinois SBAE teachers regarding important retention factors to remain in the profession, a Kruskal-Wallis test was conducted. Results of the Kruskal-Wallis test indicated significant differences ( $p < .05$ ) among groups with eight retention factors. These can be found in Table 4.

We conducted Mann-Whitney U tests as a post-hoc analysis to determine where significant differences existed among groups. When examining teacher development factors, the post-hoc analysis revealed statistically significant differences among all three groups in the years of teaching experience, as would be expected. The analysis discovered differences between the novice (mean rank = 51.58) and mid-career group (mean rank = 77.03) ( $p = .000$ ), the novice (mean rank = 48.29) and late-career group (mean rank = 85.99) ( $p = .000$ ), and the mid-career (mean rank = 55.69) and late-career group (mean rank = 69.53) ( $p = .021$ ).



When reviewing the building-level mentor variable, the novice group had significantly different means between both the mid-career and late-career groups. Novice teachers (mean rank = 67.10) and mid-career teachers (mean rank = 77.03) showed a difference of  $p = .047$ , while novice teachers (mean rank = 77.23) and late-career teachers (mean rank = 54.24) had a difference of  $p = .000$ . The last significant teacher development factor, the teacher's confidence level to adequately teach the curriculum, only showed a significant difference between novice teachers (mean rank = 61.59) and experienced teachers (mean rank = 75.83) ( $p = .017$ ).

The compensation construct yielded four sets of significant differences. The 3 Circles Grant]/Extended Contract variable showed a difference between novice teachers (mean rank = 66.13) and late-career teachers (mean rank = 51.91) ( $p = .015$ ). Differences were also discovered between novice teachers (mean rank = 57.94) and late-career teachers (mean rank = 78.84) ( $p = .001$ ) and mid-career teachers (mean rank = 55.76) and late-career teachers (mean rank = 67.57) ( $p = .05$ ) when valuing future retirement benefits. The school district graduate tuition reimbursement program factor showed significantly different means between novice teachers (mean rank = 69.38) and late-career teachers (mean rank = 48.56) ( $p = .001$ ) and mid-career teachers (mean rank = 61.17) and late-career teachers (mean rank = 42.83) ( $p = .001$ ). Furthermore, when looking at a student loan-forgiveness program, significant differences lie between novice teachers (mean rank = 55.47) and late-career teachers (mean rank = 35.34) ( $p = .000$ ) and between mid-career teachers (mean rank = 46.55) and late-career teachers (mean rank = 33.93) ( $p = .005$ ).

While the working conditions construct revealed no significant differences among groups, personal factors construct did have one. A difference was discovered between novice teachers (mean rank = 71.77) and mid-career teachers (mean rank = 56.97) ( $p = .014$ ) when examining the teacher's level of personal accomplishment as an educator.

**Table 4**

Significant SBAE Teacher Retention Factors (by construct) Among Professional Career Stages (Novice,  $n = 70$ ; Mid-Career,  $n = 59$ ; Late-Career,  $n = 66$ )

Variable	Groups	Rank Average	Statistics	
Teacher Development Factors				
Years of Teaching Experience	Novice	65.87	Chi-Square	38.220
	Mid-Career	102.73	<i>df</i>	2
	Late-Career	122.02	p-value	0.000*
Mentoring from Other Teachers in My Building	Novice	110.34	Chi-Square	12.696
	Mid-Career	91.33	<i>df</i>	2
	Late-Career	77.74	p-value	0.002*
Teacher Confidence Level to Teach the Curriculum	Novice	86.76	Chi-Square	6.043
	Mid-Career	101.34	<i>df</i>	2
	Late-Career	106.94	p-value	0.049*
Compensation Factors				
3 Circles Grant/Extended Contract	Novice	90.10	Chi-Square	6.808
	Mid-Career	86.86	<i>df</i>	2
	Late-Career	70.15	p-value	0.033*
Future Retirement Benefits	Novice	83.75	Chi-Square	10.712
	Mid-Career	94.60	<i>df</i>	2
	Late-Career	113.41	p-value	0.005*
School District Tuition Reimbursement	Novice	92.23	Chi-Square	14.835
	Mid-Career	91.68	<i>df</i>	2
	Late-Career	62.89	p-value	0.001*
Student Loan Forgiveness Program	Novice	76.98	Chi-Square	16.105
	Mid-Career	68.68	<i>df</i>	2
	Late-Career	48.27	p-value	0.000*
Personal Influence Factors				
Teacher's Level of Personal Accomplishment	Novice	109.03	Chi-Square	6.201
	Mid-Career	86.44	<i>df</i>	2
	Late-Career	96.64	p-value	0.045*

\* $p < .05$  level

### **Conclusions, Implications, and Recommendations**

The purpose of our study was to examine retention factors that influence SBAE teachers to stay in the profession. Previous studies have sought to determine attrition factors within the context of SBAE but few have attempted to determine why they stay. This census study analyzed responses from 208 Illinois SBAE teachers who revealed their reasons for remaining in the agricultural education profession. Furthermore, we wanted to determine if the leading retention factors varied among SBAE teachers within the three professional life cycle stages. As the data from this study were only collected from one state, the results of this study should not be generalized beyond the respondents.

We used objective one to describe the personal and professional characteristics of Illinois SBAE teachers who chose to remain in the profession during the 2019-2020 school year. When reviewing personal characteristics, there were several demographic factors we found noteworthy. Of our respondents, almost eighty percent (78.9%) were married or in a relationship, with 61.1% reporting having children. Family or personal reasons and feelings of guilt for time spent away from family have been identified as two top reasons why SBAE teachers leave the profession (Solomonson et al., 2018). Since being married has been shown to be a negative predictor for one's ability to create a work-family balance (Sorensen et al., 2016a), it is essential teachers with families develop strategies to establish a balance between their personal and professional lives. An area of concern with the personal demographic data is the lack of diversity among Illinois SBAE teachers. With almost all respondents reporting as white, non-Hispanic (92.8%), it is important to continually promote the profession outside of existing channels and encourage underrepresented groups to join the agricultural education profession. It is recommended that as the personal demographics change we continue to reevaluate current retention efforts to keep teachers in their classrooms.

When examining professional characteristics, several data points mirrored data reported in the most recent annual Illinois Ag Ed Report. SBAE teachers in this study worked an average of 12 years in the profession with 60.1% (60.1%,  $n = 125$ ) of them being classified as an experienced teacher (mid and late career teachers). Similarly, the Illinois Ag Ed Report (2019) reported 11 average years teaching and 62% of teachers falling within the experienced category. Another interesting finding was the percentage of teachers receiving a 12-month extended contract. Our data indicated 51% of the respondents self-reported a 12-month contract, which was similar to the state's reported 49% (Illinois Ag Ed Report, 2019).

In 2017, the number of SBAE teachers in Illinois receiving a 12-month contract was only four percent (Illinois Ag Ed Report, 2018). This increase in extended contracts can be attributed, in part, to the state of Illinois's 3 Circles Grant, which provide partial funds to pay for 400 hours of work beyond the normal school day (Illinois Ag Ed Report, 2019). As reported in Table 3, this grant is listed as one of the top retention factors for these teachers. This variable could be instrumental in a plan to keep teachers in the profession. This is supported by previous research from Warnick et al. (2010) who found compensation for additional responsibilities beyond the nine-month contract as a significant factor in the decision to remain in the teaching profession. Additional research is suggested focusing on compensation for out-of-classroom expectations.

Objective two was used to describe the leading factors influencing the decision of Illinois SBAE teachers to remain in the profession. Of the four constructs of influence, personal influences and working conditions were found to be most influential in a teacher's decision to remain in the profession. Compensation was deemed least influential of the constructs according to our participants. This is interesting since compensation is often a leading attrition factor (Allen, 2005; Sutchter et al., 2016). However, as a retention factor compensation falls to the bottom of the list. This suggests compensation

is an important factor when a teacher elects to leave but is not as influential in their decision to remain in the profession.

When examining all variables impacting an Illinois SBAE teacher's decision to remain in the profession, it is important to evaluate which factors could be influenced from an agricultural teacher educator and/or state-level SBAE leader standpoint. Of the top ten factors, it appears three factors have the greatest opportunity to be influenced: (1) the teacher's ability to engage students, (2) the confidence level to adequately teach students, and (3) the confidence level to adequately teach the curriculum. These all have the opportunity to be influenced through purposeful changes in the pre-service teacher curriculum or through meaningful professional development. A needs assessment is suggested to identify specific topics and/or curricular areas of weakness to strengthen ability and confidence levels in those areas.

We used objective three to determine differences among early-career, mid-career, and late-career Illinois SBAE teachers regarding their factors to remain in the profession. Of the eight significant teacher retention factors listed in Table 4, we found the following six differences to be most interesting: (1) mentoring from other teachers in my building, (2) teacher confidence to adequately teach the curriculum, (3) 3 Circles Grant /extended contract, (4) school district tuition reimbursement, (5) future retirement benefits, and (6) a teacher's level of personal accomplishment as an educator.

These factors can be divided roughly into two categories: factors deemed important by novice teachers and factors deemed important by experienced teachers. Novice teachers find value in receiving mentoring from peers in their building whereas late-career teachers are established and have less need for mentorship. This finding aligns with research reinforcing the value of early-career mentoring (Ingersoll, 2003; Krasnoff, 2014). Compensation was significantly more important to novice teachers than late-career teachers, both in the form of the 3 Circles Grant/extended contracts, school district tuition reimbursement, and student loan forgiveness programs. This is similar to others' (Lemons et al, 2015; Warnick, et al., 2010) findings showing salary and compensation are essential for recruitment and retention. Feelings of personal accomplishment were significantly more important to novice teachers than mid-career teachers, which is consistent with the findings reported by Solomonson (2018). Novice teachers expressed challenges with a lack of confidence to adequately teach their curriculum while late-career teachers did not share this concern. This aligns with findings that novice teachers routinely express feelings of a lack of confidence (Knobloch & Whittington, 2002; Mundt, 1999). Late-career teachers also expressed a need for more information on future retirement benefits.

We recommend schools and state-level SBAE staff continue to promote and support mentoring for novice teachers both at the local and state levels. Illinois state officials should continue to fund and promote the 3 Circles Grant and encourage additional schools to take advantage of this opportunity for their teachers. Furthermore, to aid recruitment and retention efforts, Illinois should do more to promote tuition reimbursement and loan forgiveness programs as novice teachers reported these retention factors as influential in their decision to stay in the profession. Training and assistance with financial planning and future retirement benefits should be promoted to all teachers. To enhance feelings of accomplishment, school administrators could make a greater effort to highlight early-career teacher successes while state officials can create new and additional opportunities/awards for early-career teacher recognition. A modification of teacher preparation programs and additional in-service professional development opportunities could assist in addressing a new teacher's lack of confidence to teach the curriculum. The collective findings for this objective may provide guidance for specialized professional development for teachers in the various professional career stages.

It is further recommended Illinois agricultural teacher educators, state-level staff, and key agricultural education stakeholders work together to determine how these findings could be used to

improve best practices to assist with teacher retention in the state. These best practices should then be shared with local and state policy makers and education officials. Suggested future research in this area should focus on studies examining additional compensation / extended contracts and the variable of working in a multi-teacher program to determine their effects on teacher retention. These studies may provide guidance and inform school districts' decisions when hiring new SBAE teachers or additional help to provide the necessary support needed for their agricultural education programs.

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