

# Factors Contributing to Illinois School-Based Agriculture Teachers' Final Decision to Leave the Classroom

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## Abstract

*Teacher attrition is a significant problem nationally and a special challenge for school-based agriculture education programs. The purpose of this study was to investigate contributing variables associated with former Illinois school-based agriculture teachers and their decision to leave the profession. A four-factor conceptual model is proposed as a framework for explaining agriculture teacher retention or attrition and includes the multivariate constructs of Personal Factors, Working Conditions, Teacher Development, and Compensation. Demographic characteristics are explored as well as differences between novice and experienced teachers and their perceptions of attrition influences. This study is unique in that it reports survey data from teachers who have left the profession (n = 91) and explores their reflective perceptions about reasons for leaving. Among all teachers, Personal Factors and Teacher Development were found to have the most impact on decisions to leave the profession. Compensation was found to be a more significant attrition influence for novice teachers than for experienced teachers. Recommendations for organizations hoping to promote agriculture teacher retention are discussed.*

**Keywords:** teacher retention; teacher attrition; personal factors; working conditions; teacher development; compensation

## Introduction

PK-12 teacher attrition – a phenomenon describing teachers who permanently leave the profession of teaching – is a concern across all disciplines of education. Ingersoll, Merrill, and Stuckey (2014) reported more than 41% of all teachers will leave teaching within their first five years, resulting in significant employee turnover within the profession each year. Furthermore,

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teacher attrition inflicts substantial financial costs on school districts (Haynes, 2014) and negatively impacts student achievement (Ronfeldt, Loeb, & Wyckoff, 2012).

Researchers have identified several predictor variables which teachers identify as reasons to leave the profession. These reasons include poor salary, heavy workload, excessive teaching and non-teaching responsibilities, school climate and environment, lack of control and autonomy, burnout, stress, student behavior, family or personal reasons, feelings of isolation, principal leadership, feelings of powerlessness with important decision-making, and lack of support (Burke, Aubusson, Schuck, Buchanan, & Prescott, 2015; Burke, Greenglass, & Schwarzer, 1996; Coladarci, 1992).

Within the field of agricultural education specifically, the rate of teacher attrition over the last several decades has led to a shortage of highly qualified school-based agricultural education teachers (Kantrovich, 2010). As reported in the 2016 Executive Summary of the National Agricultural Education Supply and Demand Study, nearly half of teachers who left the profession (46.8%) moved to employment opportunities in business/industry, education or educational administration (outside of agricultural education), production agriculture/farming, extension or non-formal education, adult education, or home/caregiver roles. The challenges associated with balancing attrition and low recruitment, with the addition of new programs, left 66 unfilled full-time vacancies nationwide for the 2016-2017 academic year (Smith, Lawver, & Foster, 2017).

Specific to agricultural education, researchers have determined school-based agriculture teachers are generally 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, Smith, Henry, Robinson, Lawver, Park, & Schell, 2012; Sorensen & McKim, 2014; Sorensen, McKim, & Velez, 2016a; Walker, Garton, & Kitchel, 2004), but tend to leave the profession for one or more specific reasons. Although several researchers have investigated teachers' perceptions of attrition factors by sampling agriculture teachers currently in the profession, a limited number of studies have asked former teachers – teachers who have left the profession – to reflect on their perceptions about their decision to leave (Lemons, Brashears, Burris, Meyers, & Price, 2015).

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

The conceptual framework developed for this study was derived from research conducted by Tippens, Ricketts, Morgan, Navarro, and Flanders (2013). The design of the conceptual model of primary causes of teacher attrition in school-based agricultural education was also influenced by Human Capital Theory (Grissmer and Kirby, 1987) and literature on teacher attrition (Ingersoll, 2003; Tippens et al., 2013). Tippens et al. (2013) hypothesized agriculture teacher retention or attrition was determined by overall job satisfaction, which is determined as a result of four constructs of variables: (1) employment variables, (2) working conditions, (3) family and personal factors, and (4) compensation. An adaptation of this model, which more broadly defines each of the different variables, was used to create the conceptual framework for this study.

As current literature consistently finds that agriculture teachers are generally satisfied with their careers, the overarching job satisfaction variable was eliminated from the revised model. When referring to the job responsibilities of school-based agriculture teachers, similar levels of overall job satisfaction exist between (a) teachers who stay in the profession, and (b) teachers who leave the profession of teaching (Greenhaw, Brashears, Burris, Meyers, & Morrison, 2017; Walker et al., 2004). Using this evidence, the modified conceptual model suggests one or more of the specific job satisfaction variables within the proposed constructs may directly impact teacher

retention/attrition without being attributed to overall job satisfaction. The four revised constructs identified within the adapted model, which serve as the framework for this study, include: (1) personal factors, (2) teacher development, (3) working conditions, and (4) compensation (see Figure 1).

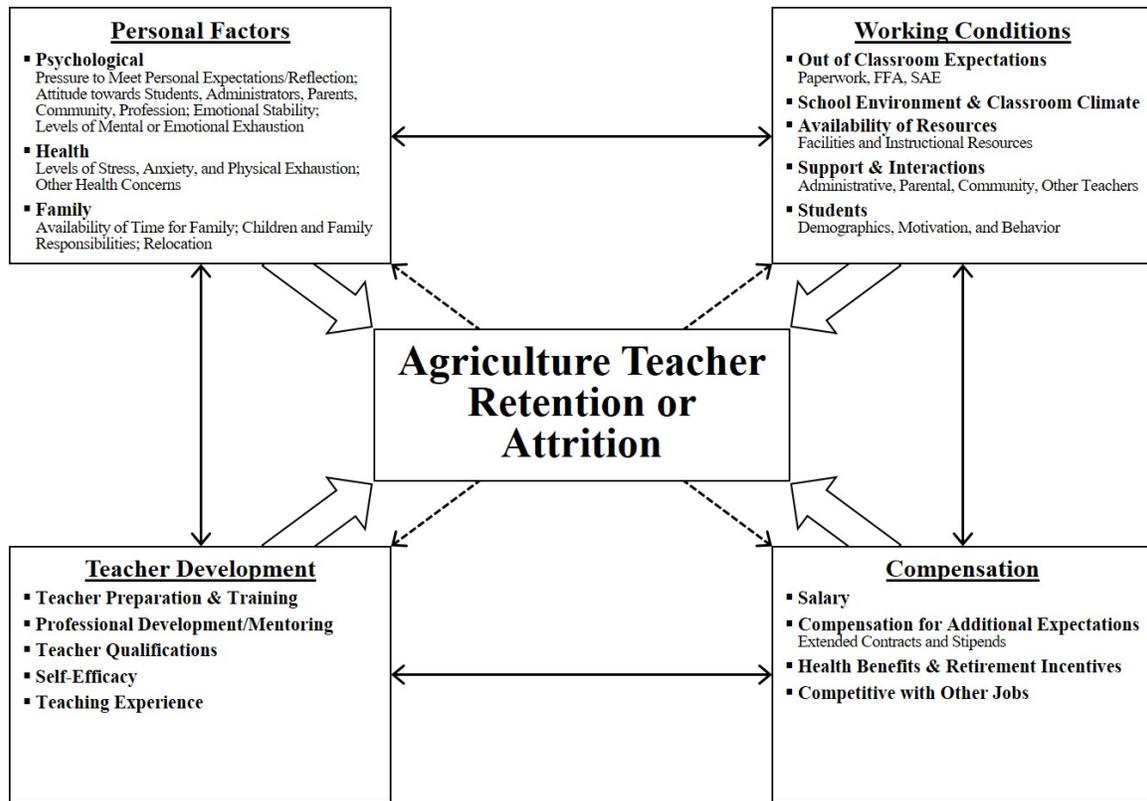


Figure 1. Conceptual model of variables influencing an agriculture teachers' decision to leave the profession

Note. Adapted from "Factors related to teachers' intention to leave the classroom early," by A. Tippens, J. C. Ricketts, A. C. Morgan, M. Navarro, and F. B. Flanders, 2013, *Journal of Agricultural Education*, 54(4), p. 61.

### Personal Factors

Ingersoll and Smith (2003) reported 42% of former teachers indicated a variety of personal reasons for leaving the profession. Personal factors related to family, health, and psychological reasons contributed to teachers' decision to leave the profession. Common stressors of teachers, characteristics of psychological burnout, and the lack of a work-life balance were also variables within the Personal Factors construct. Lambert, O'Donnell, Kusherman, and McCarthy (2006) described the teaching profession as, "Emotionally taxing and potentially frustrating" (p. 105). Consequently, it is reasonable to believe many teachers experience high levels of psychological, health, and family stress that conflict with their responsibilities as a school-based agriculture teacher.

According to Torres, Lawver, and Lambert (2008), at least one-third of school-based agriculture teachers experience significant levels of stress at particular times throughout the year.

Common stressors identified by agriculture teachers include: interactions with administration, establishing support for the program, excessive paperwork, challenges with classroom management, lack of student motivation and discipline, inadequate compensation, balancing a personal and professional life, inadequate facilities and equipment, managing the FFA chapter, and time management concerns (Boone & Boone, 2007; Boone & Boone, 2009; Mundt & Connors, 1999; Myers, Dyer, & Washburn, 2005). These stressors, in addition to other contributors, often lead to physical, emotional, and psychological burnout (McCarthy, Lambert, O'Donnell, & Melendres, 2009). Previous research confirmed agriculture teachers experience low to moderate levels of psychological burnout (emotional exhaustion, depersonalization, and perceived lack of job accomplishment) at various points during the year, predominantly when workload increases (Chenevey et al., 2008; Croom, 2003; Kitchel et al., 2012).

One-third of agriculture teachers indicated a perceived challenge to achieve work-life balance, which raises concern for the profession (Murray, Flowers, Croom, & Wilson, 2011). While some literature confirmed the battle for teachers of agriculture to achieve work-life balance (Hainline, Ulmer, Ritz, Burris, & Gibson, 2015; Sorensen & McKim, 2014), other researchers have determined that agriculture teachers perceive themselves as capable of achieving work-life balance (Clark, Kelsey, & Brown, 2014; Sorensen & McKim, 2014; Sorensen, McKim, and Velez, 2016). Furthermore, researchers found a predictive relationship between teachers' perceptions of increased workload that interferes with family life and the probability of leaving the profession of teaching (Sorensen, McKim, & Velez, 2016). Researchers reported that 81% of all teachers indicate their job must allow adequate time for family obligations in order for them to remain in the profession (Farkas, Johnson, & Foleno, 2000); however, due to an increased workload, their family time often suffers. Quite simply, many teachers choose to leave the profession due to family commitments (Tippens et al., 2013).

### **Teacher Development**

A review of the literature revealed the following activities increase teacher retention: sufficient teacher preparation and training, purposeful professional development and induction activities, possessing moderate to high levels of self-efficacy, and increased experiences in the classroom; novice teachers who have acquired ample training in teaching methods and pedagogy are more likely to remain in the profession than those with less coursework and training (Ingersoll, Merrill, & May, 2014). Moreover, traditionally certified school-based agriculture teachers are more likely to remain in the profession than those receiving an alternative type of certification (Robinson & Edwards, 2012), and sufficient professional development and induction programs have a positive impact on teacher retention (Haynes, 2014; Ingersoll, 2003; Krasnoff, 2014). Touchstone (2015) implied agriculture teacher retention rates could be improved by identifying problems agriculture teachers confront and designing professional development and mentoring activities based on those needs. These programs, specifically designed for the needs of teachers, offer much-needed assistance (Peiter, Terry, & Cartmell, 2005).

Teachers' perceptions of preparedness and self-efficacy strongly correlate with their intention to remain in the teaching profession (Darling-Hammond, Chung, & Frelow, 2002). Moreover, a high, positive correlation exists between job satisfaction and an agriculture teacher's perceived level of self-efficacy, particularly for novice teachers of agriculture (Blackburn & Robison, 2008; Swan, Wolf, & Cano, 2011). In addition to beginning teachers' initially high levels of self-efficacy and career commitment (Knobloch & Whittington, 2003), researchers determined career commitment for experienced educators is a strong predictor for teacher retention (Crutchfield, Ritz, & Burris, 2013; Sorensen & McKim, 2014). Allen (2005) revealed the likelihood

of a teacher leaving the profession significantly declines after year five. This suggests teacher retention can be attributed, in part, to additional years of teaching experience.

### **Working Conditions**

Sutcher, Darling-Hammond, and Carver-Thomas (2016), reported 55% of a teacher's decision to leave the profession is attributed, in part, to frustration with one or more variables related to their working conditions. Working conditions, particularly school environment and climate, are statistically significant predictors of teacher commitment and an educator's decision to stay in the profession (Smith, 2009). Whereas, 9% of former teachers indicate inadequate facilities and lack of classroom resources as a significant reason they left the profession (Sutcher et al., 2016), the lack of instructional resources, in combination with an excessive teaching load, was a major frustration of unsatisfied teachers (Johnson & Birkeland, 2003).

Excessive teaching load and additional responsibilities beyond the school day have consistently been reported as significant contributors to psychological burnout and teachers' decision to leave the profession (Maslach, Schaufeli, & Leiter, 2001). "When teachers assume too much responsibility for activities beyond classroom instruction, there is the potential for negative impact on their commitment to remain [in the profession]" (Crutchfield et al., 2013, p. 10). Agriculture teachers work well beyond the 40-hour workweek (Hainline et al., 2015; Lambert, Henry, & Tummons, 2011; Murray et al., 2011; Sorensen et al., 2016; Torres et al., 2008) and the additional expectations and hours they endure contribute to their decision to leave the classroom. Consequently, the amount of additional expectations beyond the scope of the school day is instrumental in the teacher attrition problem (Lemons et al., 2015).

Teachers also reported frustrations with their administration, school policy, and lack of autonomy as important reasons to leave the profession (Sutcher et al., 2016). "The most significant workplace conditions associated with teacher attrition are teachers' perceptions of their principal, collegial relationships, and school culture" (Sutcher et al., 2016, p. 51). Dealing with administrators and the lack of administrator support are commonly identified reasons teachers choose to leave the profession (Kelsey, 2006; Lemons et al., 2015; Rice, LaVergne, & Gartin, 2011; Walker et al., 2004). Inversely, those who believe they have overwhelming support from their administrators and other various stakeholders tend to stay in the profession (Clark et al., 2014; Rice et al., 2001).

### **Compensation**

Compensation is another factor commonly associated with teacher retention. The literature suggested individuals are more likely to enter the profession when starting salaries are competitive with other careers (Loeb & Beteillie, 2009). Furthermore, Gray and Taie (2015) reported that when a teacher's starting salary is \$40,000 per year or higher, attrition rates are 10% lower after the first year and 9% lower after five years. However, according to the National Education Association (NEA), the national average starting teacher salary during the 2012-2013 school year was only \$36,141 (National Education Association, 2017).

Ingersoll and Smith (2003) indicated that nearly 78% of teachers who leave the profession are dissatisfied with their salary. Whereas several studies within agricultural education have suggested that compensation is a significant factor in a teacher's decision to stay or leave the profession (Bennett, Iverson, Rohs, Langone, & Edwards, 2002; Boone and Boone, 2009; Lemons et al., 2015; Warnick, Thompson, & Tarpley, 2010), some researchers suggest compensation undeniably contributes to the decision to leave the teaching profession (Johnson & Birkeland, 2003).

### Relationship Among Constructs and Teacher Attrition/Retention

The four constructs of personal factors, teacher development, working conditions and compensation all appear to impact the decision-making process when a teacher is considering staying in the classroom or leaving to pursue other opportunities. While there does not appear to be a magical equation to predict the likelihood of a teacher staying or going, these four constructs appear to have a compensatory, give-and-take relationship impacting teacher attrition and retention. It is important to note that the overwhelming majority of literature generated addressing teacher retention and attrition has focused on teachers who are retained, as opposed to those who have left the profession. Even an instrument developed to assess risk of attrition of agriculture teachers has only been validated among current teachers (Greenhaw et al., 2017). The need for this study addresses the American Association for Agricultural Education's (AAAE) National Research Agenda Research Priority 3 as, "Sufficient Scientific and Professional Workforce that Addresses the Challenges of the 21st Century" (Roberts, Harder, & Brashears, 2016). Specifically, this priority poses the research 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).

### Purpose and Objectives

The purpose of this study was to determine variables associated with former school-based agriculture teachers' final decision to leave the profession. The following objectives were developed for this study:

1. Describe the personal and professional characteristics of Illinois agriculture teachers who chose to leave the secondary agricultural education profession.
2. Describe the variables that impact teachers' final decision to leave the secondary agricultural education profession.
3. Determine the relationship among teachers' personal and professional characteristics, the teacher attrition/retention constructs, and attrition variables.
4. Compare novice and experienced teachers' perceptions of the variables which influenced their decision to leave the secondary agricultural education profession.

### Methods

The target population of this study were agriculture teachers from Illinois who left the teaching profession between 2008 and 2017. The names and contact information for participants were provided by the Facilitating Coordination in Agricultural Education (FCAE) Program Advisors in Illinois and through the Illinois Association of Vocational Agriculture Teachers online directory. Of the agriculture teachers who left the profession ( $N = 186$ ), investigators identified 155 possible respondents for inclusion in this study due to the accessibility of their current contact information.

This research utilized survey methodology. A survey instrument was developed consisting of four sections to address the four research objectives. Attrition variables, derived from the four constructs of influence within the conceptual model, were separated into impact items ( $n = 24$ ) or affective items ( $n = 19$ ) to improve the functionality of the instrument. Section one and two of the instrument utilized a 5-point Likert-type scale to measure the influence of these two items. Section three consisted of several open-ended questions relating to the decision to leave, while section four gathered demographic data.

A panel of experts within agricultural education reviewed the instrument for face and content validity. Based on recommendations from the panel, modifications were made to the instrument. After the investigators received Institutional Review Board (IRB) approval, the instrument was pilot tested with former school-based agriculture teachers in Missouri ( $N = 20$ ) who were teaching between August 2007 and May 2012. Cronbach's alpha estimates of internal consistency were calculated for reliability of the four constructs on the pilot study instrument. Reliability estimates from the pilot test indicated coefficients of .85 (Personal Factors), .72 (Teacher Development), .73 (Working Conditions), and .71 (Compensation). Reliability estimates from the pilot test indicated "acceptable" internal consistency (Nunnally, 1978).

Researchers used features of Qualtrics, an online data collection service, to distribute the survey instrument and collect responses. The solicitation process was guided by recommendations from Dillman, Smyth, and Christian (2014). In an attempt to collect as many responses as possible, an initial email was sent to all potential participants, with three reminder emails, and one personal phone call over the two-week data collection period. A response rate of 58.71% was achieved ( $n = 91$ ). Non-response error was addressed by comparing early and late respondents (Ary, Jacobs, & Sorensen, 2010). Researchers compared the mean impact and affective responses, respectively, between early respondents and late respondents; no significant differences ( $p < .05$ ) were found between groups.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) program version 24.0. Prior to running statistical tests, reverse coding was completed for three impact variables to accommodate for a change in positive or negative perceptions of impact. The three variables reverse coded were items related to teachers' perception of their (a) confidence to teach curriculum; (b) confidence in the ability to teach students; and (c) ability to feel "caught up" with responsibilities.

Objectives 1 and 2 were analyzed using means and standard deviations. Objective 3 was analyzed using Pearson product-moment correlation, utilizing Davis's (1971) conventions for strength and direction. Objective 4 was analyzed using independent samples t-tests to compare differences between novice and experienced teachers' perceptions of variables which influenced their decision to leave teaching. For methodological purposes, novice teachers were those reporting five or fewer years of experience, while both mid-career and late-career teachers comprised the experienced teacher group (six or more years of teaching experience).

### Findings

For objective one, descriptive statistics were calculated to describe the personal and professional characteristics of school-based agriculture teachers from Illinois who chose to leave the profession. The entire sample ( $n = 91$ , 100%) identified as White (non-Hispanic) ethnicity. Among the respondents, 40.7% ( $n = 37$ ) were less than 30 years of age, 41.8% ( $n = 38$ ) were between 30-39, 10.9% ( $n = 10$ ) were between 40-49, and 4.4% ( $n = 4$ ) were more than 50 years of age. Two respondents (2.2%) did not disclose their age. The average age of respondents was calculated at 32.6 years. More than half of the respondents ( $n = 51$ , 56.0%) identified themselves as male and 44.0% ( $n = 40$ ) female. The majority of respondents completed a fully state-certified teacher licensure program ( $n = 73$ , 80.2%), while the remaining 19.8% ( $n = 18$ ) were provisionally licensed educators.

Among the respondents, 47.3% ( $n = 43$ ) completed requirements to earn an advanced academic degree (e.g., Master of Science or Doctor of Philosophy). The majority (76.9%,  $n = 70$ ) were employed as the only (i.e., single) teacher in the agricultural education department at their

school, 18.7% ( $n = 17$ ) of respondents were in a two-teacher department, and only 4.4% ( $n = 4$ ) worked in a multi-teacher department. The self-reported average yearly salary for respondents was \$48,481 (adjusted for inflation to 2017 dollars), which is 10.1 % less than their current average salary of \$53,951. Whereas the majority of former teachers ( $n = 61$ , 67.0%) indicated they had received an extended contract, 30.8% ( $n = 28$ ) did not receive an extended contract and 2.2% chose not to respond ( $n = 2$ ). Overall, the respondents indicated they believed leaving the profession was the right decision ( $n = 56$ , 61.5%), with approximately one-third of the former teachers indicating uncertainty about the decision to leave was the right one for them ( $n = 33$ , 36.3%). Additional personal and professional characteristics not previously described are shown in Table 1.

Table 1

*Selected Personal and Professional Characteristics of Former School-Based Agriculture Teachers from Illinois Who Left the Profession Between 2007-2017 ( $n = 91$ )*

Variable	<i>f</i>	%
Years of Experience (Professional Life Cycle)		
Novice (5 or fewer years)	45	49.5%
Mid-Career (6-15 years)	39	42.8%
Late-Career (16+ years)	7	7.7%
Average Number of Years in the Classroom	~ 7 years (6.9)	
Frequency of Considering Leaving the Profession During Final Year		
Never	13	14.3%
Rarely	20	22.0%
Occasionally	36	39.6%
Frequently	19	20.9%
Almost Always	2	2.2%
Did not respond	1	1.0%
Leaving the Profession was the Right Decision		
Yes	56	61.5%
No	2	2.2%
Undecided	33	36.3%

The intent of objective two was to describe the variables impacting teachers' final decision to leave the secondary agricultural education profession. Respondents were asked to rate each variable on a five-point scale reflecting the degree to which they felt the variable impacted their decision to leave, with 1 being *did not impact* and 5 being *strongly impacted*. Within the four constructs of agricultural teacher attrition/retention, respondents reported that the greatest influence on their decision to leave the classroom were *personal factors* ( $M = 2.55$ ,  $SD = 0.69$ ), closely followed by *teacher development factors* ( $M = 2.52$ ,  $SD = 0.68$ ). The least degree of influence was perceived by teachers in the area of *compensation* ( $M = 1.93$ ,  $SD = 0.84$ ). Table 2 provides the means and standard deviations of the constructs of influence.

Table 2

*Attrition Constructs of Influence and Their Impact on Illinois School-Based Agriculture Teachers' Final Decision to Leave the Secondary Agricultural Education Profession (n = 91)*

Construct	<i>M</i>	<i>SD</i>
Personal Factors	2.55	0.69
Teacher Development Factors	2.52	0.68
Working Conditions	2.09	0.67
Compensation	1.93	0.84

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

Furthermore, the researchers sought to identify which individual variables, within the constructs, had the greatest impact on former teachers' decision to leave the classroom. The top 10 of 24 impact variables are listed in Table 3. Assessment of the individual variables revealed that teachers perceived the greatest degrees of influence from *family and personal reasons* ( $M = 3.33$ ,  $SD = 1.72$ ) and *out-of-classroom expectations* ( $M = 3.25$ ,  $SD = 1.56$ ). Conversely, the least degree of influence toward teachers' reasons to leave were the *quality of facilities* ( $M = 1.64$ ,  $SD = 1.18$ ) and their *student teaching experience* ( $M = 1.12$ ,  $SD = 0.55$ ). Factors not listed in Table 3, falling below the top 10 reasons in descending order, included: pressure to meet expectations of parents, classroom climate, interactions with parents, pressure to maintain level of program success, the district superintendent, FFA stipend, level of personal accomplishment, pressure to meet expectations of administrators, extended contracts, pressure to meet expectations of other FFA advisors, feelings of emotional instability, lack of instructional resources, quality of facilities, and their student teaching experience.

Table 3

*Top Ten Variables Which Impact Illinois School-Based Agriculture Teachers' Final Decision to Leave the Secondary Agricultural Education Profession (n = 91)*

Variable	<i>M</i>	<i>SD</i>
Family or Personal Reasons	3.33	1.72
Out-of-Classroom Expectations	3.25	1.56
School Environment	2.82	1.61
Student Motivation	2.73	1.51
Pressure to Meet Personal Expectations	2.70	1.58
Salary	2.68	1.59
Paperwork	2.64	1.48
Student Behavior/ Discipline Problems	2.63	1.48
School Building Principal	2.49	1.74
School Board	2.45	1.72

*Note.* Measured on a scale from 1 (did not impact) to 5 (strongly impacted).

As shown in Table 4, researchers assessed the leading affective variables influencing the final decision to leave secondary agricultural education during the final year of teaching. Respondents self-reported the greatest frequency of behaviors, attitudes, and feelings experienced as a *lack of confidence to teach the curriculum* ( $M = 3.26$ ,  $SD = 1.46$ ) and an *inability to feel "caught up" with responsibilities* ( $M = 3.26$ ,  $SD = 1.08$ ). The least frequent affective variables reported by respondents were *negativity towards other agriculture teachers* ( $M = 1.76$ ,  $SD = 0.95$ ) and *concerns about their health* ( $M = 1.56$ ,  $SD = 0.93$ ). Affective variables not listed in Table 4, falling below the top 10 reasons in descending order included: negativity towards students, negativity towards parents, lack of personal accomplishment, uncomfortable preparing students for FFA competitions, negative self-reflection, inability to complete tasks, negativity towards the community, negativity towards other agriculture teachers, and concerns about their health.

Table 4

*Top Ten Behaviors, Attitudes, or Feelings Experienced During Teachers' Final Year in the Profession (n = 91)*

Variable	<i>M</i>	<i>SD</i>
Lack of Confidence to Teach the Curriculum	3.26	1.46
Inability to Feel "Caught up" with Responsibilities	3.26	1.08
Feelings of Guilt for Time Spent Away from Family	3.14	1.21
Stress or Anxiety	3.13	1.17
Lack of Confidence in Ability to Teach Students	3.07	1.46
Mental Exhaustion	2.84	1.16
Emotional Exhaustion	2.80	1.21
Physical Exhaustion	2.63	1.15
Negativity Towards Administration	2.58	1.26
Negativity Towards the Profession	2.27	0.98

*Note.* Measured on a scale from 1 (never) to 5 (always).

The purpose of objective three was to determine the relationship between teachers' personal and professional characteristics, the four attrition/retention constructs, and specific items of influence. Pearson product-moment correlation coefficients (*r*) were calculated to determine relationships between demographic characteristics and the four constructs. As shown in Table 5, a substantial positive relationship existed between the *working conditions* construct and *personal factors* construct ( $r = 0.65$ ). Moderate, positive relationships were found between the *working conditions* construct and the *teacher development* construct ( $r = 0.37$ ), the *compensation* and *working conditions* constructs ( $r = 0.35$ ), and the *teacher development* and *personal factors* constructs ( $r = 0.35$ ). A positive, low correlation was found between the *teacher development* and *compensation* constructs ( $r = 0.25$ ). The only negative relationship was a low correlation between the *years of teacher experience* variable and the *compensation* construct ( $r = -0.24$ ). Effect size descriptors are reported in Table 5 (Cohen, 1990).

Table 5

*Pearson Correlation Coefficients of Selected Personal and Professional Characteristics and the Four Constructs of Influence (n = 91)*

	1	2	3	4	5	6
1. Working Conditions	-	.65* <sup>b</sup>	.35* <sup>a</sup>	.37* <sup>b</sup>	-.08	-.05
2. Personal Factors		-	.19	.35* <sup>a</sup>	-.10	-.02
3. Compensation			-	.25* <sup>b</sup>	-.24* <sup>b</sup>	.12
4. Teacher Development				-	-.14	.00
5. Years of Experience					-	.04
6. Age						-

\* $p < .05$  level, 2-tailed

<sup>a</sup> Small effect size.

<sup>b</sup> Medium effect size.

A more thorough analysis of individual variables and correlations revealed the following statistically significant relationships. The *frequency one considers leaving the profession* had a moderate, positive relationship with *out of classroom expectations* ( $r = .34$ ) and *paperwork* ( $r = .32$ ), in addition to a low, positive relationship with the *level of personal accomplishment* ( $r = .27$ ) and *lack of personal accomplishment* ( $r = .29$ ). Additionally, a teacher's feelings of *negativity towards students* and 22 variables within each of the four constructs were significantly correlated at a 0.01 level (2-tailed). As such, teachers' *feelings of negativity towards students* also showed substantial positive relationships with feelings of *negativity toward parents* ( $r = 0.60$ ) and *lack of personal accomplishment* ( $r = 0.50$ ). Thorough analysis of all variables and their correlations revealed 22 additional variables that had a moderate, positive relationship with the *negativity towards students'* variable.

To compare differences between novice and experienced teachers' perceptions of the factors that influenced their decision to leave the classroom, investigators used an independent samples *t*-test calculation for objective four. For methodological purposes, participants were either classified as novice (i.e., five or fewer years of experience) or experienced (i.e., more than five years of experience). As shown in Table 6, a statistically significant difference was found between novice and experienced teachers in the *compensation* construct,  $t(89) = 2.65$ ,  $p = .01$ . The difference between the two groups yielded a medium effect size (Cohen, 1990).

Table 6

*Agriculture Teacher Attrition Constructs of Influence and Differences between Professional Career Stages (n = 91)*

Construct	Novice (n = 45)		Experienced (n = 46)		t-test	p
	M	SD	M	SD		
Personal Factors	2.63	.70	2.46	.68	1.18	.24
Teacher Development	2.61	.67	2.44	.70	1.16	.25
Working Conditions	2.20	.71	1.98	.62	1.56	.12
Compensation	2.16	.90	1.71	.73	2.65	.01*

*Note.* Novice teachers reported 1-5 years of teaching experience. Experienced teachers included teachers who reported 6-15 years of experience (mid-career) and 16 or more years of experience (late career) (Huberman, 1989; National Association of Agricultural Educators, 2017a; White, 2008).

\* $p < .05$  level, 2-tailed

When comparing the individual teacher attrition variables of influence between groups, scores were significantly higher for novice teachers than experienced teachers in seven unique areas. Mean ( $M$ ), standard deviation ( $SD$ ),  $t$ -value ( $t$ ), significance ( $p$ ), and effect size are reported in Table 7. As noted in the table, researchers identified small to medium effect sizes for each statistical comparison (Cohen, 1990).

Table 7

*Significant Agriculture Teacher Attrition Influences (by construct) and Differences Between Professional Career Stages (n = 91)*

Influences by Construct	Novice (n = 45)		Experienced (n = 46)		t-test	p
	M	SD	M	SD		
Personal Factors						
Stress	3.42	1.22	2.85	1.05	2.41	.02* <sup>b</sup>
Lack of Personal Accomplishment	2.38	1.28	1.89	0.95	2.06	.04* <sup>a</sup>
Teacher Development						
Uncomfortable Preparing students for FFA CDEs	2.24	1.09	1.78	0.76	2.35	.02* <sup>a</sup>
Working Conditions						
Quality of Facilities	2.01	1.43	1.29	0.74	3.02	.00* <sup>b</sup>
Instructional Resources	2.07	1.47	1.32	0.85	2.98	.00* <sup>b</sup>
Interactions with Parents	2.72	1.55	2.10	1.36	2.02	.05* <sup>a</sup>
Compensation						
FFA Stipend	2.63	1.66	1.64	1.04	3.43	.00* <sup>b</sup>

Note. Measured on a scale from 1 (did not impact) to 5 (always).

\* $p < .05$  level, 2-tailed

<sup>a</sup> Small effect size.

<sup>b</sup> Medium effect size.

The findings of this study revealed significant factors impacting former agriculture teachers' decisions to leave classroom teaching in addition to behaviors and dispositions recalled by the former teachers in the time leading up to their exit. Statistical significance was also found when categorizing teachers by those who were novice versus experienced in consideration of factors influencing the decision to leave.

### Conclusions and Recommendations

The purpose of this study was to investigate factors associated with former Illinois school-based agriculture teachers' final decision to leave the profession. Previous studies have attempted

to determine attrition factors within agricultural education (Bennett et al., 2002; Chenevey et al., 2008; Murray et al., 2011; Rice et al., 2011; Sorensen et al., 2016b; Tippens et al., 2013; Torres et al., 2009; Walker et al., 2004); however, very few have provided evidence from teachers who have already exited the profession (Lemons et al., 2015). There has been an Agriculture Teacher Risk Assessment instrument developed (Greenhaw et al., 2017), however to date it has only been validated among current agriculture teachers in the state of Texas. This study provided responses from ninety-one ( $N = 91$ ) agriculture teachers who have left the profession within the last 10 years to help provide some clarification as to why agriculture teachers leave the profession in Illinois.

Researchers used objective one to describe the personal and professional characteristics of school-based agriculture teachers from Illinois who chose to leave the profession. On average, teachers in this study worked seven years in the classroom, with nearly half (49.5%,  $n = 45$ ) leaving the profession in less than five years. This finding is consistent with the literature suggesting the largest attrition group is early-career teachers (Grissmer & Kirby, 1987; Ingersoll et al., 2014; Sutcher et al., 2016). Interestingly, the late-career teachers comprised the smallest group with 7.7% ( $n = 7$ ), while mid-career teachers (those with 6-15 years of experience) comprised a higher than expected percentage with 42.8% ( $n = 39$ ). This may suggest additional time and financial resources should be allocated towards retention efforts for mid-career teachers.

When reviewing additional personal and professional characteristics, several other factors were deemed noteworthy. Of the respondents, 56% ( $n = 51$ ) identified as male and 44.0% ( $n = 40$ ) as female. This is almost identical to current demographic information reported from Illinois Agricultural Education state staff, as 57% of Illinois Agriculture teachers are male and 43% female, respectively (Facilitating Coordination in Agricultural Education, 2017). The demographic consistency between the sample and the population eliminates the assumption that one gender leaves the profession at higher attrition rate than the other.

Moreover, when examining salary information, it was evident school-based agriculture teachers from Illinois have the potential to increase their salaries after exiting the profession, with an average self-reported increase of 10.1% in their current positions. However, as the data revealed, compensation was reported as the least influential construct in the model. This finding, combined with the fact that approximately two-thirds (67%,  $n = 61$ ) of participants were already receiving additional compensation through an extended contract, provided the basis for researchers to conclude the compensation construct was not as influential as some might assume. This finding is inconsistent with literature that suggested inadequate compensation was a leading predictor in teacher attrition (Allen, 2005; Ingersoll, 2003; Sutcher et al., 2016). Additionally, the demographic data revealed more than one-third of teachers (36.3%,  $n = 33$ ) were still indecisive about whether or not they made the right decision to leave the profession. This may suggest an opportunity for the profession to reintroduce former agriculture teachers to the profession if the critical shortage of qualified teachers continues to be a concern. Additional research is needed to investigate teachers' perceived concerns related to compensation.

Researchers used objective two to identify factors impacting school-based agriculture teachers' final decision to leave the profession. Of the four constructs in the proposed model, personal factors were deemed the most influential construct, closely followed by teacher development, working conditions, and further down the list, compensation. While family or personal reasons were reported as the most significant influencer, it is interesting to note seven of the top 10 impact variables were from the working conditions category. This is consistent with literature suggesting poor working conditions as a prominent element in the decision to leave the teaching profession (Johnson & Birkeland, 2003). Moreover, objective two was used to determine the top affective factors associated within the conceptual model. These data provide a glimpse into

the behaviors and attitudes former agriculture teachers experienced during their last year in the profession. The lack of confidence to teach the curriculum was the leading variable, with several indicators also coming from the personal factors, teacher development, and working condition constructs.

After thorough examination of all attrition variables, it is evident several variables have the ability to influence teachers' decision to leave. While family or personal reasons are often perceived as a variable outside of the profession's control, many of those issues stem from the lack of work-life balance. This is often due to the out-of-classroom expectations, also a leading attrition factor in this study. This finding is supported by the literature that indicates agriculture teachers work well beyond the 40-hour work week and often struggle to balance their personal and professional time (Hainline et al., 2015; Lambert et al., 2011; Murray et al., 2011; Sorensen et al., 2016a; Torres et al., 2008). It is plausible to consider that attrition rates might decline if those in the profession (i.e., Agricultural Education State Staff, CTE Directors, Administrators) made a conscious effort to either (a) decrease the expectations placed upon its teachers, or (b) provide them with additional help/resources to manage the excessive workload.

National and state agricultural education staff must be mindful of expectations (evening/weekend events, additional paperwork) they are placing upon their teachers, specifically novice teachers who have not developed techniques to deal with the stressors of the job and/or achieving a work-life balance. Furthermore, as the inability to feel caught up was identified as a top attrition factor, and more than three-quarters (76.9%,  $n = 70$ ) of those leaving the profession were last employed within a single-teacher department, providing additional assistance for those teachers is essential. Support groups, such as the local FFA alumni or advisory council, could provide some assistance in these areas; however, hiring additional help may prove to be the best course of action. Boone and Boone (2009) suggested agriculture teachers may have an easier ability to balance their home life with work when employed within a multi-teacher department. Creation of additional multi-teacher agricultural departments, or at minimum hiring an assistant FFA advisor, may help increase the retention rates in the profession to distribute excessive workload among various people within the program.

Moreover, lack of confidence to teach the curriculum and the ability to teach students could be improved through purposeful modification of existing teacher preparation programs and additional professional development opportunities for pre-service teachers. Additional research identifying specific pedagogical or agricultural content knowledge gaps should be conducted to provide direction for additional coursework or professional development opportunities.

Objective three sought to determine if a relationship existed among the participants' personal and professional characteristics, four attrition/retention constructs, and various items of influence. Moderate to substantially strong relationships were reported among all constructs, except personal factors with compensation. This provides some validity within the conceptual model that items are significantly related, excluding the relationship between the two previously mentioned. When examining attrition factors with the frequency one considers leaving the profession, several items proved to have a moderate correlation, including out of classroom expectations and paperwork. This finding helps confirm the concern that excessive expectations placed on teachers is detrimental to the profession. Furthermore, the significant correlations among teachers' feelings of negativity towards students and 22 other attrition influences bear further investigation. Linear regression analysis should be conducted with a larger sample to predict the impact of teachers' feeling of negatively towards students on their decision to leave.

Data reported from objective four revealed differences among teachers across their professional career span. When examining the four constructs, only compensation proved to be a statistically significant variable between novice and experienced teachers. The data reveal that novice teachers find elements within the compensation construct as more important than the veteran teachers. One possible explanation is that the experienced teachers are less concerned about money because they would typically be higher on the salary schedule, due to additional years of experience. Other significant differences between novice and experienced teachers revealed that novice teachers have higher levels of stress, feelings of lack of personal accomplishment, are uncomfortable preparing students for CDEs, and are concerned more about the quality of facilities, lack of instructional resources, interactions with parents, and the lack of a FFA stipend. This may suggest a need for some specific focus areas for professional development in this demographic.

The collective findings of this study could present an opening for conversation among vested stakeholders in agricultural education regarding the state of the profession and the future trajectory of the profession. Dialogue should be initiated among the various groups of agriculture teachers, state Department of Education staff, state FFA staff, and agriculture teacher educators. This dialogue should focus on how these findings can be used to inform future practices within agricultural education to ensure the state culture is one that encourages retention of qualified teachers as opposed to promoting practices that lead to increased attrition. The overall organizational culture within the various vested stakeholder organizations should be critically examined with the idea of promotion of retention and minimization of attrition factors in mind.

This study is unique in that no other previous research that examines agriculture teachers who have left the profession have explored a sample of this magnitude. Although the results help narrow the expansive list of variables that may contribute to a teacher's decision to leave, more investigation is warranted with a larger, diverse sample of teachers from other states to draw conclusions or make predictions for the definitive reasons teachers choose to leave. Based on the findings, modifications should be made to refine the survey instrument. Furthermore, relevant qualitative research should be conducted to investigate potential factors that would positively influence a current school-based agriculture teachers' decision to stay and a former teacher's decision to return to the profession.

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