

The relationship of work engagement, work-life balance, and occupational commitment
on the decisions of agricultural educators to remain in the teaching profession

by

Nina R. Crutchfield, B.S.E., M.S.E., M.S.E.

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Approved

Scott Burris

Tim Murphy

David Doerfert

Gary Wingenbach

Fred Hartmeister
Dean of the Graduate School

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Abstract

The purpose of this study was to identify and describe agriculture teachers on factors related to career retention and to explore the relationships between agriculture teachers' work engagement, work-life balance, occupational commitment, and personal and career factors as related to the decision to remain in the teaching profession. The target population for this study was defined as experienced agricultural educators who had completed a minimum of four years of teaching experience, who were currently employed in a secondary agricultural education classroom for the 2009-2010 school calendar. The accessible population consisted of those experienced agricultural educators in the southern region of the United States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee. The study sought responses from a stratified random sample of those teachers to ensure geographical and gender representation equivalent that of the target population.

This study employed descriptive-correlational research procedures. The instrument was constructed utilizing portions of the four studies to measure the variables of interest. Independent samples t-tests revealed there were no statistical differences between genders on any responses. A regression analysis revealed a 25% variance in occupation commitment attributed to work-life balance and work engagement.

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Chapter I

Introduction

“I am an agriculture educator by choice and not by chance” (Ag teachers’ creed, n.d.). These words hang in offices and classrooms around the United States as tribute to the decision that agricultural educators make on an annual, even daily, basis. Teachers are in the profession by choice, despite experiencing increased demands and conflict created by professional expectations and personal life pressure.

The 2007-2010 National Research Agenda for Agricultural Education and Communications (Osborne, n.d.) identifies preparing and providing an abundance of fully qualified and highly motivate agricultural educators at all levels as a priority area. An extension of this action item is the focus of maintaining those qualified and motivated teachers once they secure employment. This is not a new problem. Metlife (Markow, 2008) reported that the percentage of teacher turnover at the end of the 2003-2004 school year was measurably larger than during the 1987-1988, 1990-1991, and 1993-1994 school years. The apparent increase was attributed to a greater number of teachers retiring and a greater number leaving the ranks of the profession (Markow, 2008). Summarizing trends in vacancies, Kantrovich (2007) reported a nationwide shortage of agricultural educators dating back to 1965 (see Figure 1).

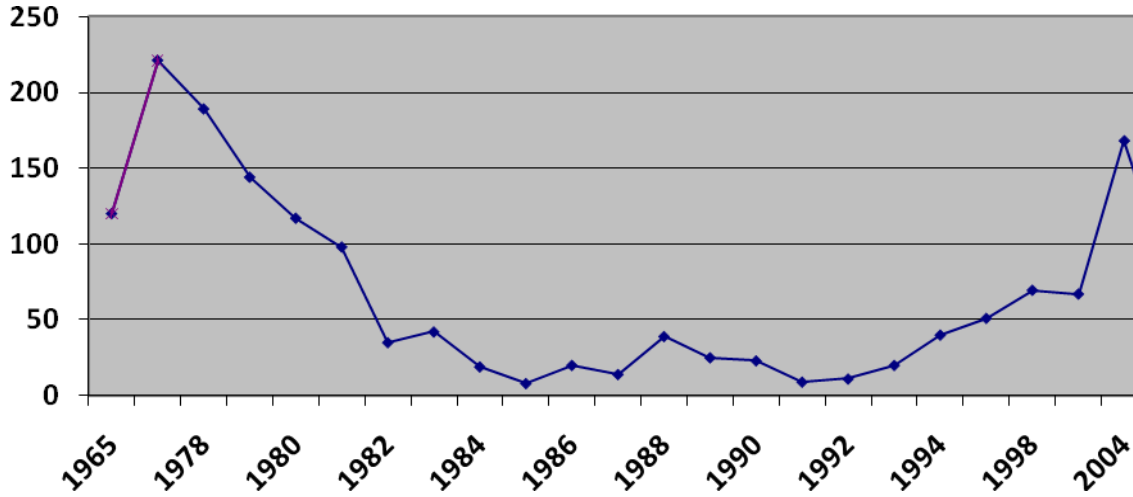


Figure 1. Number of agricultural education teachers needed but unavailable September 1 (Kantrovich, 2007).

Background and Setting

Known as a profession that eats its young (Archer, 1999; Osborne, 1992), the teaching profession can expect to lose between 30% and 50% of teachers within their first five years on the job (Darling-Hammond, 2003; Ingersoll, 2003; Levine & Haselkorn, 2008; Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2006; National Commission on Teaching and America's Future, 2003). For decades researchers have focused on determining the cause of teacher attrition in an effort to reduce its occurrence. Turnover rates are higher for teachers than other comparable professions. With a rate of 20%, teacher turnover is two percentage points higher than nurses and more than 12 points higher than college professors (Ingersoll, 2003).

Barnes, Crowe, and Schafer (2007) and The National Commission on Teaching and America's Future (2003) clearly outlined the recognition of an educator retention

problem. The loss of practicing educators results in costly annual recruitment and hiring cycles that only temporarily alleviate the symptoms of a much larger crisis. A problem continuing to drain tax dollars, undermine teaching quality, and hinder student achievement (Barnes et al., 2007; NCTAF, 2003).

Agricultural education classrooms are not immune to this quandary. With only 59% of traditionally trained agriculture education graduates entering the teaching profession and a high rate of attrition among early career teachers (Camp, Broyles, & Skelton, 2002), it has become increasingly difficult for school districts to recruit agricultural educators to fill vacancies in many states.

Why teachers leave. Understanding why teachers leave is an important factor when addressing the retention issue. Brill and McCartney (2008) stated that there are a “plethora of causes of teacher attrition, although most involve non-salary related dissatisfaction, such as excessive workload and high-stakes testing, disruptive student behavior, poor leadership and administration within schools, and views of teaching as a temporary profession” (p. 750). Former teachers reported a vast array of reasons to leave, everything from family and personal circumstances to a low degree of efficacy that led to low motivation; from demoralization to burnout (Borman & Dowling, 2008; Cano & Miller, 1992; Castillo & Cano, 1999; Newcomb, Betts, & Cano, 1987).

Cost to schools. Some argue that attrition is healthy, weeding out those who are less capable (Archer, 1999). Ingersoll (2003) explained that while examining teacher turnover from an organizational perspective, it is easy to recognize that some turnover, especially turnover of ineffective teachers is necessary and beneficial; however, excessive turnover results in the loss of effective teachers and is disruptive to school

cohesion and performance. School administrators and community members often believe that high turnover rates actually save districts and taxpayers money (Barnes et al., 2007). This money saving myth resonates with stories of how turnovers allow districts to cut costs by keeping teachers at the lower end of the salary scale, rather than expending funds to pay veterans for their years of experience (Barnes et al., 2007). However, the loss of teachers is a colossal drain on coffers as school districts increase expenditures in the form of increased costs of recruiting, hiring, and training new employees; reduced morale of remaining employees; degraded relationships between remaining employees; projection of an unfavorable image of the organization as a place to work; interruption of daily activities; organizational instability; and, diminished ability of the organization to grow (Barnes et al., 2007; Ingersoll, 2001; Mowday, 1984). According to NCTAF (Barnes et al., 2007), turnover requires school districts to spend between \$6,250 to \$70,000 per teacher to recruit, hire, and train replacements, depending on whether a district is non-urban or urban, respectively.

NCTAF (Barnes et al., 2007) also estimated the cost of remediating students who lacked expert teachers more than doubles that cost for school districts. For districts that experience a high degree of turnover, this cost is devastating to limited budgets and long term student success. It is clear that investing in teacher retention is more prudent than seeking new hires every year (Barnes et al., 2007; Ingersoll, 2003)

Cost to students. Good teachers are the most important factors in student success (Mishel, Alegretto, & Corcoran, 2008). The loss of those teachers compromises the quality of instruction and results in a negative effect on student performance (Allen, 2005; Ingersoll, 2001). While difficult to measure, new, inexperienced educators are far

less effective than their veteran counterparts (Day, Sammons, Kington, Gu, & Stobart, 2006). For years, NCTAF (Barnes et al., 2007; NCTAF 2002, 2003) highlighted the concern for the effect a parade of inexperience teachers has on student opportunities to learn by limiting their access to effective teachers before those teachers reach their peak of performance. Teachers who stay in the profession longer develop a higher degree of self efficacy (Rocca & Washburn, 2006), leading to greater effort to work with struggling or difficult students (Gibson & Dembo, 1984; Soodak & Podell, 1996). In 1999, Castillo and Cano reported that turnover of agricultural educators had greater impact because students can be enrolled in a secondary agriculture program for up to four years.

As early as 1978, Knight investigated why agricultural educators leave during their early years. Since that time, across all content and grade level specialties, researchers have asked the question “Why do teachers quit?” (Allen, 2005; Borman, 2008; Brill & McCartney, 2008; Castillo & Cano, 1999; Cochran-Smith, 2004; Day et al., 2006; Grissmer & Kirby, 1997; Ingersoll, 2001, 2003; Inman & Marlow, 2004; Levin, 2008; Ruhland, 2001; Singh & Billingsley, 1996). Only a few have truly asked “Why do teachers stay in the classroom?” (Cochran-Smith, 2004; Inman & Marlow, 2004; Levin, 2008; Nieto, 2003). It is far better to retain than to replace teachers. The benefits of a retained teacher are realized when the high cost of turnover is reduced (Ruhland, 2001). A teacher retained is a teacher recruited.

Recommendations persist in identifying the factors that lead teachers to choose to return to their classrooms year after year (Barnes et al., 2007; Ingersoll, 2001, 2003; Inman & Marlow, 2004; Knight, 1978; NCTAF, 2002, 2003).

Statement of Problem

Despite studies implying a focus on retention, close inspection of teacher shortage issues shows a tendency for researchers to focus on attrition, using subjects who have chosen to leave the teaching profession or surveying early career teachers wrestling with the choice of staying or leaving. Very few have attended to the question of why educators continue teaching (Cochran-Smith, 2004; Inman & Marlow, 2004; Nieto, 2003) or to identify similarities or differences between the leavers and stayers (Allen, 2005). The critical factors that move educators to remain in their classrooms, working with diverse student populations, reaching out to parents, and answering what is deemed a personal calling, are unknown. Gu and Day (2008) stressed that research was needed to identifying factors that influence and sustain commitment during times of change.

This study focused on the relationship of work engagement, work-life balance, and occupational commitment on the decisions of agricultural educators to remain in, rather than, the teaching profession. This study was an attempt to systematically process perceptions of experienced agricultural education professionals who chose to remain in the secondary education classroom. This study makes valuable contributions to researchers, teacher education institutions, professional organizations, and school administrators; if agricultural educator shortages are to be reduced, a clear understanding of the factors that influence their decision to remain must be gained.

Purpose of the Study

The purpose of this study was to identify and describe agriculture teachers on factors related to career retention and to explore the relationships between agriculture teachers' work engagement, work-life balance, occupational commitment, and personal

and career factors as related to the decision to remain in the teaching profession. Knowledge of these relationships may allow for a systematic approach to developing strategies to retain agricultural educators. The accessible population for this study consisted of experienced agricultural educators from the southern region of the United States who remained in the profession beyond four years.

Research Questions

The following research questions were developed to guide the focus of the study:

1. What are the demographic and career characteristics of experienced agricultural educators?
2. How does work engagement relate to agricultural educator retention?
3. How does work-life balance relate to agricultural educator retention?
4. How does occupational commitment relate to agricultural educator retention?
5. What are the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention?

Theoretical Framework

Attribution theory attempts to answer the questions “Why people do what they do” (Weiner et al., 1971). Heider (1958) described this vein of research as common sense psychology. He expressed his affinity for naïve psychology providing a picture of the environment that guides decision making and an adequate description to make prediction possible. Heider also stated that action depends on two sets of conditions: internal factors and external factors.

This explanation led to Weiner et al.’s (1971) identification of locus of control, stability, and controllability as causal dimensions of internal and external attributes.

While an infinite number of internal and external attributes influencing decisions can be identified, Weiner (1985) branded the primary factors as ability, effort, task differentiation, and chance or luck. Each attribute is subject to the causal dimensions, as summarized in Table 1.

Table 1

Weiner's (1985) Causal Dimensions of Attributes

Attribute	Locus of Control	Stability	Controllability
Ability	Internal	Stable	Controllable
Effort	Internal	Unstable	Controllable
Task Differentiation	External	Stable	Uncontrollable
Chance/Luck	External	Unstable	Uncontrollable

As Weiner's (1985) attribution theory evolved, various avenues of psychological research branched into educational settings. Social scientists explored teaching strategies and learning outcomes, schools as organizations, and adoption and diffusion of educational reform. Investigators explored job satisfaction, engagement and burnout, motivation, efficacy, commitment, and work-life balance through the lens of educators, seeking to find reasons behind their decisions to become teachers, to continue teaching despite obstacles, and to leave the profession.

While each of those research corridors is important, none act independently. Kelley (1973) postulated that attributes covary. Any behavior that occurs in the presence of another behavior covaries, influencing the decision (Kelley, 1973; Kelley & Michela, 1980). Kelley and Michela (1980) cautioned against drawing distinct lines between

cause and effect based on their theory of covariation. Perceptions of covariance can vary between subjects and between researchers. Kelley (1973) developed a conceptual model utilizing an ANOVA cube.

The three dimensions were persons (P), stimuli (S), and time (T). “The attribution of a given P’s response to a certain S on a particular occasion (T) depends on the perception of the degree of its *consensus* with the other P’s responses to S, its *consistency* with this P’s response to S at other T’s, and its *distinctiveness* from P’s response to other S’s” (Kelley & Michela, 1980, p 462). Consensus regards the person’s reaction as it compares to reactions of individuals. Consistency quantifies the reaction to the stimuli over time. Distinctiveness measures the frequency of reaction every time the stimuli occur. Kelley’s ANOVA cube implies patterns that lead to attributions (Kelley & Michela, 1980).

Work engagement, work-life balance, and occupational commitment and all factors affecting agricultural educator’s decisions to remain in the classroom, reach back to Heider, Weiner, and Kelley’s (1973) early efforts to explain behavior. While not the pure factors identified by Weiner (1985), each relates to ability, effort, and task differentiation. Because none occur in the absence of another, Kelley’s (1973) supposition that they covary provides impetus for further exploration.

Definition of Terms

Attrition—teachers who leave a teaching assignment for reasons other than retirement.

Experienced Agricultural Educator—teachers who have completed a minimum of four years of teaching experience, who have secured continuous employment in the secondary agricultural education classroom for the current school year.

Occupational Commitment—intent to teach as measured by Blau, Paul, and St. John (1993).

Retention—teachers who remain in the teaching profession as a classroom instructor.

Secondary Agricultural Educator—teacher engaging students in grades seventh through twelfth .

Work engagement- positive work-related state of fulfillment that is characterized by vigor, dedication, and absorption as measured by Schaufeli and Baker (2003).

Work-family conflict—form of inter-role conflict, work and family roles are incompatible (Greenhaus & Beutell, 1985) as measured by Gutek, Searle, and Klepa (1991).

Work-life balance—ability to manage the conflict between the pressures of work and family roles (Greenhaus & Beutell, 1985) as measured by Chaney (2007) and Gutek et al. (1991).

Limitations

For this study, a questionnaire was used to obtain data regarding work engagement, work-life balance, and occupational commitment of experience agricultural educators. The approach created a limitation in that responses were self-reported, possibly reducing validity of the study. While there are a number of extraneous variables that may influence individual decisions, this study was limited to exploring the relationships of work engagement, work-life balance, and occupational commitment. This study sought responses from secondary (grades seventh through twelfth) agricultural educators who had completed a minimum of four years of teaching experience, located in the southern region of the United States, including Alabama, Arkansas, Florida, Georgia,

Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee. The regional aspect of the study's sample limited generalizability of the statistical analysis.

Assumptions

It was assumed that study participants chose to remain in the teaching profession of their own volition. It was assumed they were truthful in their answers. It was also assumed that 1) the participant's reasons to stay were inversely opposed to the reasons others left the teaching profession (Certo & Fox, 2002); 2) their needs are met as agricultural educators; 3) the problem is complex and information will assist the profession in developing a strategy to keep agricultural educators in the classroom; 4) experienced agricultural educators, using their insights and perceptions, are better equipped to explain what influences their decision to remain; and, 5) it is impossible and impractical to survey all current, experienced agricultural educators.

Significance of the Problem

The findings of this study are significant to all levels of the education community. The ability to identify the factors that cause agricultural educators to remain, with the potential to influence those factors, are of interest to school administrators, state professional development officials, departments of higher education, and various research institutions that analyze educational issues. Insight into the relationships of work engagement, work-life balance, and commitment will provide valuable information for the design of interventions that will positively influence agricultural educators to remain in the profession and reduce the likelihood of turnover in local programs.

Introductory Summary

The education profession, including agricultural education, continues to experience a shortage of teachers. Retaining quality educators has been identified as a priority by the *National Research Agenda for Agricultural Education 2007-2010* (Osborne, n.d.). This study attempted to identify factors that influence agricultural educator's choice to remain in the profession beyond the fourth year of experience, highlighting the fact that a teacher retained is a teacher recruited. This information will be useful to participants and their families, local school districts, professional organizations, state departments of education, and teacher education institutions. This study may prove valuable in creating professional development that addresses the needs of agricultural educators through all stages of their teaching career, whether during the first year or the remaining twenty or more.

Chapter II

Review of Literature

Purpose of the Study

The purpose of this study was to identify and describe agriculture teachers on factors related to career retention and to explore the relationships between agriculture teachers' work engagement, work-life balance, occupational commitment, and personal and career factors as they relate to the decision to remain in the teaching profession. Knowledge of these relationships may allow for a systematic approach to developing strategies to retain agricultural educators. The accessible population for this study consisted of experienced agricultural educators from the southern region of the United States who remained in the profession beyond four years.

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4. How does occupational commitment relate to agricultural educator retention?
5. What are the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention?

Overview

There were reports of the impending teacher shortage across elementary and secondary ranks in the 1980's (Ockerbloom, 1983). Those cries continued to be heard

throughout the 1990's (Daugherty, 1998; Karge, 1992; Weston, 1997), and even now in the first decade of the 21st century (Cook & Boe, 2007; Gonzalez, Brown, & Slate, 2008; Ingersoll, 2001, 2003; Markow & Cooper, 2008; McLeskey & Billingsley, 2008). In our own contextual area of agricultural education, Knight (1978) identified the potential for calamity as early as early as the 1970's. Kantrovich (2007) reported a pattern of agricultural educator shortage reaching back to 1965.

In the 1980's and 90's, researchers focused on the characteristics of the teachers as the driving force behind whether or not one stays or goes (Chapman & Hutcheson, 1982; Haggstrom, Darling-Hammond, & Grissmer, 1988; Murnane, 1981; Murnane, Singer, & Willet, 1988). Grissmer and Kirby (1997) go so far as to blame the teacher shortage on the aging teacher population, identifying a U-shaped attrition rate that peaks during the early years of education careers and again during the retirement years. Others attribute the attrition to the subject taught, illuminating the fact that elementary school teachers have a higher rate of return than those working with high school populations (Bobbitt, Leich, Whitener, & Lynch, 1994; Boe, Bobbitt, Cook, Barkanic, & Mailsin, 1998; Murnane et al., 1991).

Looking for an alternative explanation, Ingersoll approached the phenomenon from a different perspective. He spent considerable time and energy determining the effects of the organization or school district on the teacher's decision to remain or leave (Ingersoll, 2001, 2003). He recognized that this approach to explaining employee attrition and turnover had been utilized in other arenas but lacked application to the teaching profession (Ingersoll, 2001). Ingersoll (2001) reported that the shortage of educators is not due to an increase in student population or the growing number of

retirees, it is due to the large number of teachers who leave teaching for other jobs.

These conclusions are supported by studies conducted by Allen (2005) and Certo and Fox (2002).

More recently, the common foci of research has included job satisfaction, burnout, school climate and cultural influences, induction, self efficacy, commitment to teaching, the effects of school reform efforts, and workload; all looking to explain why teachers leave the profession. Shirom (2003) defines burnout as a reaction to stress that creates negative work outcomes such as lack of commitment, increased absenteeism, lack of engagement, and eventual turnover. There are a plethora of variables that contribute to teacher burnout: student misbehavior and classroom management (Hastings & Bham, 2003); demands of home (Cinamon & Rich, 2005); large classes, working with special needs students, and student achievement (Maslach, Schaufeli, & Leiter, 2001).

With so many reasons to leave, the question begs to be asked: why do some teachers chose to stay in the classroom while others are making an exodus? Are there personal characteristics, environmental influences, or is it simply the nature of the education profession?

Levin (2008) stated that “finding and keeping quality educators should be a preoccupation of every school, district, and government that is involved in education....High turnover of teachers imposes significant costs on an education system, not only in training and developing new teachers, but also in the lost productivity of experienced and capable people” (pg 223). Inman and Marlow (2004) looked to beginning teachers to identify positive aspects of teaching that lead to retention. The researchers identified external factors such as salary, collegiality, working conditions,

and job security as factors that influence early career teachers to remain in the profession (Inman & Marlow, 2004). They failed to explore any intrinsic factors that affect individuals' perceptions of those external factors.

Cochran-Smith (2004) highlighted the situation in her editorial appearing in the *Journal of Teacher Education*. She stated that the twenty-first century era of accountability resulted in teacher retention becoming the scourge of the nation's schools (Cochran-Smith, 2004). While Cochran-Smith (2004) extolled Ingersoll's macro-type approach to analyzing the situation, she refers to Nieto's (2003) work to get to the root of the issues affecting teacher retention. In her longitudinal study, Nieto (2003) created core study groups and facilitated the exploration of why teachers chose to stay in the profession despite obstacles and deprivations. She found that they remained more for matters of the heart, intrinsic reasons, rather than extrinsic rewards such as salary or prestige (Nieto, 2003). Nieto (2003) found teachers deeply engaged with their work, committed in all ways, and a common shared view of teaching "as a way to live in the world" (pg 101).

Certo and Fox (2002) reported the reasons for leaving were inverse variables for the reasons to stay. Approaching the phenomenon from this sanguine perspective, the literature reveals viable explanations answering the question of why teachers persist beyond the fourth year, including their degrees of work engagement, work-life balance, and occupational commitment.

Theoretical Framework

The theoretical framework for this study is based upon attribution theory as described by Heider (1958), Weiner et al. (1971), and Kelley (1973). In the early years

of the theory formation, Heider referred to the study of attribution as a common sense, naïve psychology. While not yet empirically measured, he began developing the guidelines that would allow research in the field to provide a picture of the environment that guides decision making and an adequate description to make prediction possible (Heider, 1958). Heider (1958) stated that action depends on two sets of conditions: internal factors and external factors.

Following on Heider's heels, Weiner et al. (1971) identified locus of control, stability, and controllability as causal dimensions of internal and external attributes. Weiner (1985) went on to recognize primary factors that affect attribution as ability, effort, task differentiation, and chance or luck. Each attribute is subject to the causal dimensions (see Table 1).

Howard Kelley (1973) focused on conditions that lead individuals to attribute a cause of action to interaction with their environment. Building on Weiner's causal dimensions, Kelley (1973) postulated that environmental interactions are compartmentalized into distinctiveness, consensus, and consistency. Behavior that only occurs when a particular environmental factor that is present is said to be high in distinctiveness. Consensus is the degree to which others respond similarly, while consistency is the scale of response when the environmental factor is present. When the factor is judged to have high distinctiveness, high consensus, and high consistency it is deemed an external attribution. The reciprocal is true, the low distinctiveness, low consensus, and low consistency identifies an internal attribution (Kelley, 1973). As a result, Kelley (1973) proposed that attributes covary. If the behavior always occurs in the

presence of another behavior, they are perceived to covary (Kelley, 1973; Kelley & Michela, 1980).

Kelley (1973) developed a conceptual model utilizing an ANOVA cube (see Figure 2). The three dimensions were persons (P), stimuli (S), and time (T). “The attribution of a given P’s response to a certain S on a particular occasion (T) depends on the perception of the degree of its *consensus* with the other P’s responses to S, its *consistency* with this P’s response to S at other Ts, and its *distinctiveness* from P’s response to other Ss” (Kelley & Michela, 1980, p 462). Kelley’s ANOVA cube implies patterns that lead to attributions (Kelley & Michela, 1980).

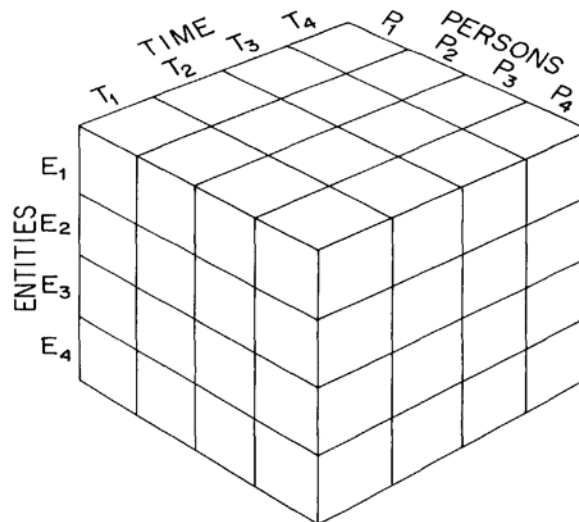


Figure 2. The analysis of variance framework for making causal inferences (Kelley, 1973).

Note. Kelley used entity (E) interchangeably with stimuli (S) (Kelley, 1973).

Kelley and Michela (1980) caution against drawing distinct lines between cause and effect based on their theory of covariation, recognizing that perceptions of covariance can vary between subjects and between researchers.

This study sought to answer the question, why do agricultural educators choose to remain in the classroom. Utilizing attribution theory, identification of the attributes that contribute to the decision developed. Bobeck (2002) identified attributes influencing educator's decisions to remain in the profession: relationships, career competence and skill, personal ownership of career, and a sense of humor. Pajares (1996) found that resilience and persistence relating directly to efficacy and one's ability to problem solve and cope with dilemmas attributed to teacher success. Bruening and Hoover (1991) stated that unresolved intrinsic and extrinsic factors lead to job dissatisfaction while teachers having a strong sense of purpose created successful students. Schaufeli, Bakker, and Salanova (2006) identified vigor, dedication and absorption as the attributes that create employees with an energetic and effective connection to their work activities leading to prolonged engagement. Pajak and Blase (1989) found that personal-life factors impact work lives, creating conflict between family and work commitments. Numerous other factors have reportedly influenced educators' career decisions. Teachers who left the profession describe various factors influencing their decision to leave: student discipline, growing requirements by reform efforts, lack of administrative support, low salary, poor facilities, lack of extrinsic reward for accomplishments, family commitments, retirement, and opportunities in other professions (Billingsly & Cross, 1991; Borman & Dowling, 2008; NCTAF, 2002, 2003; Grissmer & Kirby, 1997; Ingersoll, 2001, 2003; Stewart, Moore, & Flowers, 2004). However, these factors are reported inconsistently across research efforts.

Work Engagement

Brayfield and Rothe (1951) believed that job satisfaction could be inferred from an individual's attitude toward their work. As such, the Brayfield Index of Job Satisfaction has been used by previous researchers (Cano & Miller, 1992; Newcomb et al., 1987; Walker, Garton, & Kitchel, 2004). The instrument proved valuable when examining educational professionals, including those in agricultural education (Camp, 1987). Bruening and Hoover (1991) found that teachers who are satisfied with their work and have a strong sense of purpose will have programs that produce successful students. Personal fulfillment, a strong sense of purpose, and strong interpersonal relationships are indicators of job satisfaction (Pajak & Blase, 1989).

In the profession of agricultural education, practicing teachers have been found to be overall satisfied with their jobs when utilizing instruments based on the Brayfield Index of Job Satisfaction (Cano & Miller, 1992; Newcomb et al., 1987, Walker et al., 2004); however, most have experienced a degree of job dissatisfaction stemming from the factors associated with burnout (Newcomb et al., 1987). Focusing on Ohio's agricultural educators, Newcomb et al. (1987) studied the extent of burnout and its relation to job satisfaction and coping skills. They found that the teachers were not making use of recreation and self-care coping skills that could lead to a lower degree of burnout among the respondents (Newcomb et al., 1987). Cano and Miller (1992) also found Ohio's agricultural educators satisfied nine years later. They found that the teachers' age, position, years of experience, and level of education were not related to job satisfaction (Cano & Miller, 1992), contrary to Grady (1990) who stated that as the number of years of experience increased, the degree of job satisfaction increased. Walker

et al. (2004) confirmed Cano and Miller (1992) finding their sample of Missouri agricultural educators' overall satisfied with very little change in the degree of satisfaction from their first year to their current position.

Utilized in numerous studies (Chan 2003; Croom & Moore, 2003; Shirom, 2003; Smethem, 2007), the Maslach Burnout Instrument identifies the factors that lead to job dissatisfaction. Maslach et al. (2001) draw attention to the antecedents to job dissatisfaction—emotional exhaustion, depersonalization, and personal accomplishment. Choosing a more optimistic approach to research, Schaufeli et al. (2006) sought to measure work engagement, rather than Maslach's indicators of job satisfaction: emotional exhaustion, depersonalization, and lack of personal accomplishment (Maslach et al., 2001). Utilizing the Utrecht Work Engagement Scale, they illustrated that the constructs of vigor, dedication, and absorption were positive antipodes to the factors of job dissatisfaction, burnout, exhaustion, and cynicism. This approach stems for the field of positive psychology where human strength and optimal functioning are the dependent variables of interest (Schaufeli et al., 2006). In that light, engaged employees have a sense of energy and connection with their work; they are able to see themselves dealing well with the demands of their jobs (Schaufeli et al., 2006). Fredrickson (2001) postulated that positive emotions are a means of achieving psychological growth and improved well-being over time. This study examined the positive nature of being engaged in ones work and its influence on occupational commitment through the lens of experience educators.

Work-Life Balance

A fairly new vein of research, the exploration of work-life balance is becoming an increasing popular branch of vocational and organizational psychological research (Carlson & Kacmar, & Williams, 2000; Grzywacz & Marks, 2000). In 1985, Greenhaus and Beutell found that work-family conflict grows when either work or family roles are salient and central to a person's image of self; the more important the role is to the individual, the more effort they will invest that role. One should note teachers' personal lives are intimately linked to their performance in their professional lives (Day, 2008). The multiple roles assumed by educators (e.g. guide, friend, coach, surrogate parent, teacher, spouse, parent, sibling) influences both the professional life and the personal life (Flores & Day, 2006). Adams, King, and King (1996) reported that the relationship between work and family life is a bidirectional phenomenon, whereby both can interfere and support the other. Cinamon and Rich (2002a, 2002b, 2005) confirmed the interaction of work and family conflict. As one moves through different stages of life, roles change, as does one's sense of commitment to various roles; as life circumstances evolve, conflicts between work and family may evolve as well (Cinamon & Rich, 2002b). Flores and Day (2008) illustrated how teacher identities are shaped and reshaped over time. Those identities are influenced by personal and professional histories, professional training, school culture, and leadership influences (Flores & Day, 2006).

Guttek et al. (1991) examined the two most important domains in adult lives: work and family. The two roles are often in conflict, work with family (long hours, reduced presence at home, missed activities) and family with work (child illnesses and absenteeism) (Guttek et al., 1991). The more job involvement, the higher the work-family

conflict, leading to increased burnout, reduced job satisfaction, and reduced commitment (Adams et al., 1996). The more preoccupied and reduced effectiveness due to that preoccupation, the higher the work-family conflict (Guttek et al., 1991). There is a disproportion in the degree of conflict reported by gender (Cinamon & Rich, 2002a, 2005; Guttek et al., 1991). One should note that as experience grows, regardless of gender, work-life conflicts decline (Cinamon & Rich, 2005). Cinamon and Rich (2005) attribute this to the ability to adjust work requirements to accommodate family situations. Individuals who are work-oriented make accommodations that meet their need for challenges while allowing for career enrichment (Cinamon & Rich, 2005). Individuals who are family-oriented will seek accommodations to minimize conflicts with family requirements (Cinamon & Rich, 2005).

Pajak and Blase (1989) found that teachers perceived their personal lives having a positive influence on their professional lives. Fredrickson (2001) developed the broaden-and-build theory to explain the effect of positive emotions on work-life balance and the ability to develop resiliency as a result. This state of resiliency, or lack thereof, creates a link between work engagement, work-life balance, and occupational commitment.

Bruening and Hoover (1991) found that personal life factors do influence the professional performance of agricultural educators. Foster (2001) found that balancing work and personal lives was one of the most challenging aspects for female agricultural educators. Myers, Dyer, and Washburn (2005) confirmed her findings in a study of beginning agriscience teachers. Chaney (2007) found that as work-life balance increased, attrition decreased. Work taking away too much time from family and an inability to

balance work and personal commitments is a key factor in the decision to leave (Chaney, 2007).

Occupational Commitment

Commitment is an antecedent to teacher performance, burnout, attrition or retention, as well as teacher influences on student cognitive, social, behavioral, and affective outcomes (Day, 2008; Day et al., 2006; Singh & Billingsley, 1996). Past research focused on teachers' reasons for leaving (Allen, 2005). According to Day (2008), current researchers need to identify the factors that sustain their commitment, motivation, and effectiveness over the duration of their careers and lead to the decision to stay. Commitment is an outward expression of a teacher's psychological attachment to their profession, motivation, willingness to learn, and belief they do make a difference in the learning and achievement of students (Sammons et al., 2007). Commitment may rise or fall depending on the teacher's life and work experiences (Day, 2008).

Day, Elliot, and Kington (2005) identified commitment as a predictor of teacher performance, burnout, attrition, and influences on student cognitive, social, behavioral, and affective outcomes. Nias (1989) defined commitment as a sense of caring, dedication, and a sense of pride in their profession. Nais (1989) discussed four dimensions of teacher commitment that overlap and co-exist: caring for children, attainment of high occupational standards, seeing themselves as teachers, and viewing the teaching profession as a career one cannot afford to leave. Tyree (1996) confirmed Nias' (1989) findings when he reported four dimensions of commitment as caring, commitment as occupational competence, commitment as identity, and commitment as career-continuance. The need to engage with teachers with the same degree of commitment was

so great that teachers sought schools with a culture of commitment to sustain them (Nias, 1989). Tyree (1989) found, through personal interviews with teachers, that their ideological belief in commitment did not diminish over time but that there are times of waning due to external, environmental events. The personal and family changes affected the balance in their life but their overall commitment to teaching persisted (Tyree, 1989). Grady (1990) found that those who persisted in the teaching profession have a higher degree of initial commitment to teaching than those who leave.

Singh and Billingsley (1996) stated that commitment is an antecedent of retention. If employees are committed they are less likely to leave the organization (Singh & Billingsley, 1996). Gu and Day (2007) stressed that research needs to move toward identifying factors that influence commitment in an effort to sustain it during times of change. Personal factors, such as role conflicts, influence teacher's endeavors to sustain their professional commitment (Gu & Day, 2007; Singh & Billingsley, 1996).

Grady (1990) used initial commitment to teaching as a factor in evaluating agricultural educators' cognitive and emotional responses to professional success in his study of social learning theory. He found no difference in initial commitment between those who stayed in teaching and those who left. Knobloch and Whittington (2003) examined the differences in efficacy as it related to career commitment of agriculture teachers. They found that teachers who had a higher degree of career commitment were more resilient and maintained efficacy after the first ten weeks of school (Knobloch & Whittington, 2003). The researchers recommended that commitment be included in multiple regression analyses to determine its relationship with other factors (Knobloch & Whittington, 2003).

Professional Life Phases

A large body of research focuses on beginning and early career teachers (Archer 1999; Brill & McCartney, 2008; Burris, McLaughlin, Brashears, & Frazee, 2008; Ritz, 2009) because of the likelihood of attrition among the group. There continues to be calls to investigate the nature of experienced educators and what sustains them to remain in teaching (Inman & Marlow, 2004; Ingersoll, 2001, 2003; Knight, 1978; NCTAF, 2002, 2003).

Huberman (1993) first identified the career entry phase as one of survival and discovery characterized by the shock of reality in the classroom. The entry phase gives way to the stabilization phase where teachers make a conscious decision to either stay or leave (Huberman, 1993). Huberman's (1993) stabilization phase is characterized by the development of a professional identity, a sense of commitment and responsibility, and belonging to the profession. Stabilization gives way to a phase of diversification and change (Huberman, 1993). Teachers begin to broaden their instructional repertoire, design new assignments and become more flexible in their responses to students. Mid-career teachers find themselves taking stock in their career, reflecting on their current professional situation, and considering alternative opportunities (Huberman, 1993). Huberman (1993) found that the final stage of teachers' careers can go several different ways and even incorporate them all: serenity, affective distance, and conservatism. Teachers can feel rejuvenated, motivated, recommitted during this phase; begin working mechanically, anticipating everything that can happen in the classroom; and/or bemoan the newest students as undisciplined and untrained (Huberman, 1993).

The VITAE project (2001-2006) was a longitudinal study designed to extend Huberman's work and to explore variations in teachers' lives, work, and effectiveness throughout the various phases of their careers (Day, 2008). Using a sample of 300 teachers, across disciplines, the project examined influences upon and between teachers' professional and personal lives (Day, 2008). Qualitative in nature, the study illuminated six phases of educators' professional lives (Day, 2008). The early years, 0-3, are characterized by developing efficacy and requirement of high commitment on behalf of the inducted teachers (Day, 2008). Years 4-7 are characterized by increased confidence, development of identity as an educator, and the acceptance of additional responsibilities adding to their workload (Day, 2008). Years 8-15 find the teachers managing changes in their roles and identity in their professional and personal lives, sustained engagement, and making decisions about progression in their career (Day, 2008). Years 16-23 find teachers experiencing challenges with motivation and commitment, fighting professional stagnation, managing heavy workloads, facing increased demands in their personal lives, and making work-life balance a focus (Day, 2008). Years 24-30 prove the most challenging to sustaining motivation; most are holding on but losing motivation (Day, 2008). Teachers who persist beyond 30 years have high commitment or are looking to retire but are trapped (Day, 2008). Table 2 summarizes Day's professional life phases (2008).

Table 2

Professional Life Phases (Day, 2008)

Professional Life Phase	Characteristics of the Phase
Early induction, 0-3 years	Developing efficacy, requires high degree of commitment
Induction, 4-7 years	Characterized by increased confidence, development of identity as an educator, and acceptance of additional responsibilities adding to their workload
Early 8-15 years	Managing roles and identity in their professional and personal lives, sustained engagement, making decision about progression of their career
Mid, 16-23 years	Experiencing challenges with motivation and commitment, fighting professional stagnation, managing heavy workloads, facing increased demands in their personal lives, and making work-life balance a focus
Late, 24-30 years	Most challenging period for sustaining motivation, most are holding on but losing motivation
Sunset, 31 + years	High commitment or are looking to retire but are trapped

Note: Day identified the phases by the number of years of experience. The researcher added names to the phases for ease of identification.

As teachers get older and gain teaching experience they tend to develop coping skills that alleviate work stress (Croom & Moore, 2003), potentially reducing the degree of work-life conflict (Cinamon & Rich, 2005).

Gender

Burris et al. (2008), Chaney (2007), Lee (2009), and Ritz (2009) all recognize that the gender dynamic of the agricultural education profession is changing as more females become agricultural educators. Foster (2001) and Smethem (2007) found that female teachers feel torn between their career and their families. Cinamon and Rich (2005) found responses to work-family conflict statements to differ between males and females,

females reporting higher degrees of work-family conflict than males. The agricultural education profession is currently a male dominated career field (Kantrovich, 2007; Lee, 2009). Castillo and Cano (1999) found that female teachers leave the profession faster than males. Kersaint, Lewis, Potter, and Meisels (2007) found that those who remain in the teaching profession still value their family and responsibilities associated with it above all else, but females are more likely to leave for jobs that are less time consuming and reduce conflicts.

Summary

The literature review brings to light the surfeit amount of research done concerning the attrition of educators. In the process, the question of why teachers persist in the profession becomes salient. Questions of work engagement, work-life balance, and occupational commitment are all attributes that can be categorized according to Wiener et al.'s (1971) causal dimensions. One's perceived ability to teach influences personal work engagement, scale of work-life balance, and degree of commitment. This in turn affects the amount of effort that will be expended to practice and influence student outcomes, allowing one to determine the level of difficulty of any educational effort. An educator's locus of control, degree of stability and controllability, interacts and tends to covary. This study was designed to bring those factors together, determine if relationships exist, and probe why agricultural educators persist.

Chapter III

Methodology

Purpose of the Study

The purpose of this study was to identify and describe agriculture teachers on factors related to career retention and to explore the relationships between agriculture teachers' work engagement, work-life balance, occupational commitment, and personal and career factors as they relate to the decision to remain in the teaching profession. Knowledge of these relationships may allow for a systematic approach to developing strategies to retain agricultural educators. The accessible population for this study consisted of experienced agricultural educators from the southern region of the United States who remained in the profession beyond four years.

Research Questions

The following research questions guided this study:

1. What are the demographic and career characteristics of experienced agricultural educators?
2. How does work engagement relate to agricultural educator retention?
3. How does work-life balance relate to agricultural educator retention?
4. How does occupational commitment relate to agricultural educator retention?
5. What are the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention?

Research Design

This study utilized descriptive-correlational research procedures to accomplish the purpose (Fraenkel & Wallen, 2006). According to Fraenkel and Wallen (2006),

correlational research explores the relationships that exist between one or more variables without any attempt to influence them. These types of study do not attempt to establish cause and effect, but rather endeavor to identify magnitudes of relationships that make it possible to predict the score of one variable based on the score of another (Fraenkel & Wallen, 2006). The variables of interest in this study were the degrees of work engagement, work-life balance, and occupational commitment experienced by agricultural educators who completed a minimum of four years of teaching experience. The correlational design measured the degree of the existing relationships between the identified factors that influenced the respondents' decision to continue to teach.

A major concern of all research is the threat to internal validity. Fraenkel and Wallen (2006) identified the threats to internal validity as subject characteristics, mortality, location, instrumentation, testing, history, maturation, attitude of subjects, regression, and implementation. While implementation, history, maturation, attitude of subjects, and regression are not applicable to a correlational study because no intervention occurs; subject characteristics, location, instrumentation, testing, and mortality are viewed as potential threats to interval validity in this study (Fraenkel & Wallen, 2006).

Subject characteristics may be statistically controlled by using partial correlations of extraneous variables. The extraneous variable is measured and thus held statistically constant (Fraenkel & Wallen, 2006). This study sought demographic information, including age, gender, program information, enrollment numbers, training, and years of experience. The information was measured in an effort to reduce error due to subject characteristics. To control location threat, the instrument must be completed in the same

environment by all respondents. The instrument was mailed to the respondents' place of employment, rather than home in an effort to hold that variable constant. In addition, the study was regional in nature to reduce residential influences.

The instrument was only administered once and completed independently by the respondents. As a result, the threat of instrument decay, multiple testing experience, and data collector influence were void. In an effort to control mortality, Dillman's (2007) and Shinn, Baker, and Briers' (2007) strategies were implemented to achieve a high response rate. To control for non-response error, steps were taken to compare early to late respondents, using "days to respond" as a continuous variable, and comparing respondents to non-respondents (Lindner, Murphy, & Briers, 2001).

Variables of Interest

The dependent variable of interest is the educators' decision to continue teaching secondary agriculture beyond four years.

The independent variables consisted of work engagement, work-life balance, and occupational commitment. Each variable was identified through the review of the literature and deemed to have an influence on the dependent variable.

Employees who have a sense of energy and connection with their work activities experience high degrees of vigor, dedication, and absorption (Schaufeli et al., 2006). The Utrecht Work Engagement Scale (UWES) was used to assess the degree of job satisfaction and engagement in the sample (Schaufeli & Bakker, 2003).

Cinamon and Rich (2005) identify the conflict between work and family as a factor that influences individual work engagement and commitment. The questionnaire utilized quantitative questions from two sources, Chaney (2007) and Gutek et al. (1991).

Five questions from Chaney's (2007) study address the respondent's perceptions of work-life balance. The questions relate to the value placed on creating balance and their perceived ability to do so. Gutek et al.'s (1991) eight questions look to measure the bidirectional occurrence of work interfering with family and family interfering with work.

Singh and Billingsley (1996) identified commitment as an antecedent of retention. Eleven questions from the Work Commitment Index (Blau et al., 1993) were used to measure the occupational commitment of the respondents.

Population

The target population for this study was defined as experienced agricultural educators who had completed a minimum of four years of teaching experience, who were currently employed in a secondary agricultural education classroom for the 2009-2010 school year. The accessible population consisted of those experienced agricultural educators in the southern region of the United States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee. The study sought responses from a stratified random sample of those teachers to ensure geographical and gender representation equivalent that of the target population.

Lists of current agricultural educators were secured from websites associated with state departments of agricultural education. Each year strenuous efforts are made by state directors of agricultural education to ensure their mailing lists are current and accurate. It was prudent to refrain from duplicating their efforts. While the lists were assumed accurate, it was not the aim of this study to gather data from the entire population. Teachers completing four or less years of teaching experience were removed from the

lists. Compilation of the remaining educators resulted in a population of 1,705 ($N = 1,705$) agricultural educators in the southern region. Following Krejcie and Morgan's (1970) formula for determining sample size, the study sought responses from 314 ($n = 314$) participants to ensure a 95% confidence level and .05 alpha level. A stratified sample was gleaned from the state lists reflective of the regional representation. It was further stratified for gender to ensure the female perceptions were expressed in the data. Schaufeli et al. (2006) found a slight difference in work engagement between males and females. Foster (2001) stresses the struggle female agriculture teachers experience between balancing professional and personal commitments. Table 3 reflects the stratification for gender.

Table 3

Stratification of Sample (N = 1705, n = 314)

State	<i>Population</i>		Sample <i>n</i>	<i>Male</i>			<i>Female</i>		
	<i>f</i>	<i>%</i>		<i>f</i>	<i>%</i>	<i>n</i>	<i>f</i>	<i>%</i>	<i>n</i>
Alabama	248	15	47	224	90	42	24	10	5
Arkansas	183	11	34	166	91	31	17	9	3
Georgia	227	13	41	186	82	34	41	18	7
Florida	219	13	41	134	61	25	85	39	16
Louisiana	167	10	31	131	78	24	36	22	7
Mississippi	121	7	22	107	88	19	14	12	3
North Carolina	259	15	47	196	76	36	63	24	11
South Carolina	69	4	13	55	80	10	14	20	3
Tennessee	212	12	38	173	82	31	39	18	7
Total	1705	100	314	1372	80	252	333	20	62

To obtain the sample from the lists, male and female participants were numbered separately and consecutively. A list of random numbers was generated using Microsoft Excel software. Individuals with the corresponding numbers were pulled for inclusion in the stratified random sample.

Procedures

Permission was obtained from IRB (502046) prior to the study (Appendix A). The instrument was sent to sample participants early in the academic year. The fall semester was selected based on the nature of events during that time. It was not a time of standardized testing preparation or professional development. Waiting until October, yet prior to the winter holidays, reduced the likelihood that responses were the result of any optimism created by the start of a fresh school year or the anticipation of winter break.

Instrumentation

Instrumentation for this study consisted of pieces from four different instruments used independently by researchers to measure the independent variables of interest.

Work engagement. The study incorporated the Utrecht Work Engagement Scale, or UWES, to measure work engagement (Schaufeli & Bakker, 2003). The instrument was chosen because of its association with job satisfaction rather than dissatisfaction, and its use with over 22,000 subjects. Having established a high degree of validity and reliability across occupations and cultures, it was a good fit for this study. The instrument measured participant vigor, dedication, and absorption, stemming from positive psychology; antipode variables to exhaustion, cynicism, and lack of professional efficacy (Schaufeli et al., 2006).

Schaufeli et al. (2006) defined the 3 factors of the UWES:

Vigor is the high level of energy and mental resilience while working, the willingness to invest effort in one's work and persist even in the face of difficulties.

Dedication is being strongly involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge.

Absorption is when one is fully concentrated and happily engrossed in one's work, where time passes quickly, and one has difficulty detaching themselves.

The seventeen item UWES is a published instrument, available from Schaufeli's website www.schaufeli.com.

Fraenkel and Wallen (2006) define reliability as the degree to which scores obtained with an instrument are consistent measures of whatever is being measured. The UWES, consisting of vigor, dedication, and absorption, was administered in ten countries from twenty-seven studies, between 1999 and 2003, across thirteen occupational categories. There were 2,313 ($n = 2,313$) respondents, including teachers, in the aggregate data (Schaufeli & Bakker, 2003). The Cronbach's alpha coefficients for the three factors are as follows: 0.86 (vigor), 0.92 (dedication), and 0.80 (absorption). The entire UWES yielded Cronbach's α of .94.

The degree to which correct inferences may be made based on the results of the instrument (Fraenkel & Wallen, 2006), or validity, was determined by the instrument's authors. Utilizing a database of fifteen studies, the researchers conducted factor analysis to compare the Maslach Burnout Inventory (Maslach et al., 2001) and the Utrecht Work Engagement Scale (Schaufeli & Bakker, 2003). They found the three dimensions of burnout—exhaustion, cynicism, and professional efficacy, were negatively correlated to the three dimensions of work engagement—vigor, dedication, and absorption (see Table 4).

Table 4

*Pearson's Correlation Coefficients Between Maslach's Burnout and UWES (n = 6,726)
(Schaufeli & Bakker, 2003)*

Variable	Vigor	Dedication	Absorption	UWES
Exhaustion	-0.40	-0.33	-0.19	-0.36
Cynicism	-0.53	-0.65	-0.44	-0.61
Reduced Professional Efficacy	-0.65	-0.70	-0.56	-0.70

Age was found to have a weak, positive correlation with the UWES factors: vigor $r = .05$, dedication $r = .14$, and absorption $r = .17$. Older employees feel slightly more engaged than younger employees.

Schaufeli and Bakker (2003) found no difference between men and women's mean scores for vigor. They reported only a slight difference in dedication and absorption based on gender. As a result, computing gender-specific normalized scores was unnecessary in their study.

Work-Life Balance. Chaney (2007) explored work-family balance as a factor influencing the attrition of early career teachers in Texas. Defining work-life balance as a person's control over conditions in their professional work and personal life, Chaney (2007) explained that a balance is struck when one can manage both professional work and personal life without sacrificing either. She created five questions that address participant perceptions of balance achievement and the belief that achieving balance influences the decision to remain or leave the profession. She reported a Cronbach's α of .95 for the three items identified as balance achievement and .76 for the two items related

to a belief in balance. The items were grammatically adjusted to read from the first person perspective for this study.

Because Chaney's five questions measured only the respondent's perception of balance achievement, eight items from Gutek et al. (1991) work-family conflict instrument were included. Gutek et al. (1991) stated that work-family role conflict occurs when work interferes with family or family interferes with work. Four items measure work-family conflict ($\alpha = .83$), while the remaining four items measure family-work conflict ($\alpha = .83$); resulting in a correlation coefficient of .26. The items were reverse coded by the authors so that a high score identified high conflict. For this study, the scale was reversed to eliminate the need for reverse coding during analysis.

Occupational Commitment. A portion of Blau et al.'s (1993) Work Commitment Index was used to measure agricultural educator's commitment to teaching. The omitted items measured job saliency, work ethic, and organizational commitment; all variables unrelated to the research questions of this study. Blau et al. (1993) defined occupational commitment as one's attitude, including affect, belief, and behavioral intention, toward their chosen occupation. The remaining 11 questions addressed occupational commitment having an alpha coefficient of .91. The authors used a confirmatory factor analysis to test the discriminant validity of the instrument constructs, making identification of the 11 job commitment variables possible. Six items were reverse coded so that a high score indicated a high degree of occupational commitment. Those items can be seen in Appendix B.

Data Collection

Initial contact was made via email on September 21, 2009, introducing the researcher, identifying the purpose of the study, explaining the voluntary nature of responding, and the degree of confidentiality to anticipate from the researcher (Appendix C). The contact was made early in the work week to reduce interference of extra job responsibilities that cluster at the end of the school week (ie. athletic events, livestock exhibitions, grade reporting, etc.). Consecutive contacts were made in the same time frame for the same reasons. Dillman (2007) stated that the instrument should follow three days after the initial contact. The researcher deviated from Dillman's recommendations based on Shinn et al. (2007) study of response patterns that reported response rate frequencies tended to be higher on Tuesdays and Wednesdays. Table 5 summarizes the timeline for data collection procedures.

Table 5

Timeline for Data Collection Procedures (Dillman, 2007; Shinn et al., 2007)

Date	Procedure
September 21, 2009	Email pre-notice (Appendix C)
September 28, 2009	Email web link and instructions (Appendix D)
October 5, 2009	Email reminder, web link, and instructions (Appendix E)
October 29, 2009	Paper copy (Appendix B), with cover letter (Appendix F), mailed to non-responders
November 2, 2009	Final email reminder, web link, and instructions (Appendix G)
November 12, 2009	Phone non-responders for verbal completion of the paper questionnaire (Appendix B)

Note. The paper copy was mailed October 29th with the intention of arrival at the school on Monday, November 2, sorting by school staff, and placement in the participant's mailbox for retrieval on Tuesday, November 3.

A reminder email (Appendix D) to complete the web based instrument followed one week later as prescribed by Dillman (2007). The fourth contact (Appendix B) was via a paper copy, mailed to non-respondent's school address. The paper copy included a letter (Appendix F) requesting completion of paper copy as well as a link to the web based version, a stamped and self-addressed return envelop, and the paper instrument. This contact was delayed due to major events occurring during the month of October. Many of the states represented by the sample hold state fairs and livestock exhibitions

and the National FFA Organization conducts their annual convention during the middle weeks of October. The researcher was aware of the large percentage of agricultural educators that would be in attendance at those activities and chose to delay mailing the questionnaire. It was obvious that if the teachers were away from their classrooms, the questionnaire could be lost, reducing response rates. The final contact (Appendix G) was made with non-respondents via email, urging them to complete either the paper or electronic instrument.

The respondents were coded and entered into SPSS version 15. The coded information allowed the researcher to determine non-response for continuing contact during data collection. Following the conclusion of data gathering, the codes were discarded.

After obtaining less than 100% response, the researcher contacted 20 nonrespondents and conducted the survey by telephone (Appendix B) as recommended by Lindner et al. (2001).

Response Rate

The researcher obtained 56% response rate ($n = 314$). The responses were analyzed for state of residence and gender to ensure adequate representation of the data. The responses were closely aligned with the desired state representation as well as the gender differentiation as summarized by Table 6.

Table 6

Stratification of Respondents (N = 1705)

State	Sample <i>n</i>	Desired % of <i>n</i>	Response of sample		Male		Female	
			<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Alabama	47	15	24	13.5	22	91.7	2	8.3
Arkansas	34	11	26	14.7	23	88.5	3	11.5
Georgia	41	13	20	11.3	13	65.0	7	35.0
Florida	41	13	27	15.3	21	77.8	6	22.2
Louisiana	31	10	17	9.6	13	76.5	4	23.5
Mississippi	22	7	14	7.9	12	85.7	2	14.3
North Carolina	47	15	21	11.9	16	76.2	5	23.8
South Carolina	13	4	8	4.5	6	75.0	2	25.0
Tennessee	38	12	20	11.3	18	90.0	2	10.0

Note. The desired gender representation was 80% male, 20% female.

Nonresponse Error

According to Lindner et al. (2001), there are three steps to controlling nonresponse error and its influence on external validity of the data: comparison of early to late respondents, using “days to respond” as a regression variable, and comparing respondents to nonrespondents. The data were analyzed using all three methods to determine threats to external validity.

Comparison of early to late respondents. Responses were compared between early and late respondents utilizing an independent samples t-test. The analysis yield no differences between the two group response means for the factors of vigor ($t(119) = 0.05$,

$p > .05$, $r = .04$), dedication ($t(119) = 1.03$, $p > .05$, $r = .09$), absorption ($t(119) = 0.54$, $p > .05$, $r = .05$), perceptions of creating balance ($t(119) = -0.01$, $p > .05$, $r = .01$), work interfering with family ($t(119) = 0.88$, $p > .05$, $r = .08$), family interfering with work ($t(120) = -1.07$, $p > .05$, $r = .10$), and occupational commitment ($t(118) = 1.42$, $p > .05$, $r = .13$).

Days to respond as a regression variable. Utilizing “days to respond” as a regression variable revealed that timing of response accounted for no influence on vigor, dedication, absorption, perceptions of creating balance, work interfering with family, family interfering with work, and occupational commitment. Table 7 summarizes the data.

Table 7

Regression of "Days To Respond" On Characteristics (n = 177)

Variable	<i>R</i>	<i>R</i> ²	<i>B</i>	<i>SE B</i>	β
Model	.34	.11			
Vigor			-.02	.19	-.12
Dedication			.45	.18	-.34
Absorption			.00	.15	.00
Perceptions of creating balance			.05	.10	.04
Work interfering with family			-.09	.07	-.12
Family interfering with work			.07	.10	.05
Commitment			.07	.10	.07

Adjusted $R^2 = .07$ For Model: $F_{(7,154)} = 2.82$; $p < .05$

Comparison of respondents to nonrespondents. Utilization of an independent samples t-test yielded differences in the means of responders and nonrespondents for the work engagement factors, vigor ($t(174) = 3.36$, $p < .05$, $r = .25$), dedication ($t(173) = 4.84$, $p < .05$, $r = .35$), and absorption ($t(174) = 3.83$, $p < .05$, $r = .28$). Mean scores revealed that responders ($M = 5.79$, $SE = 0.07$) were more vigorous than nonresponders ($M = 5.13$, $SE = 0.17$); responders ($M = 6.21$, $SE = 0.06$) were more dedicated than nonresponders ($M = 5.35$, $SE = 0.19$); and responders ($M = 5.91$, $SE = 0.06$) were more absorbed than nonresponders ($M = 5.18$, $SE = 0.20$). As a result, caution was taken when generalizing the data beyond the sample population.

Data Analysis

Data from the questionnaire was loaded into the Statistical Package for the Social Sciences (SPSS) version 15.0 for Microsoft Windows. The alpha level for determining statistical significance was established a priori at 0.05 ($\alpha = 0.05$).

Research Question One: What are the demographic and career characteristics of experienced agricultural educators? To answer research question one, the experienced agricultural educator ($n = 314$) characteristics were analyzed for state of residence, gender, highest educational degree held, type of training received, annual contract length, age, years of teaching experience, number of students in the agricultural education program, number of co-teachers in the program, and the number and age of children living at home. Frequency, percentages, and mode were used to analyze the categorical data. Frequencies, percentages, measures of central tendency and variability were used to analyze the ordinal data.

Research Question Two: How does work engagement relate to agricultural educator retention? To answer research question two, mean scores, ranges, and standard deviations were used to analyze the data, measuring the degree of work engagement reported by experienced agricultural educators ($n = 314$). The data measured were summated scores from the seventeen item Utrecht Work Engagement Scale (Schaufeli & Baker, 2003). The three factors, vigor, dedication, and absorption, were reported using a seven-point Likert-type scale. Pearson product-moment coefficients were calculated to identify the relationships between the years of teaching experience, professional life phases, and work engagement of respondents.

Research Question Three: How does work-life balance relate to agricultural educator retention? The word *superiors* was changed to *administration* in one item to reflect the school setting. To answer research question three, mean scores, ranges, and standard deviations were used to analyze the data, measuring the degree of work-life balance reported by experienced agricultural educators ($n = 314$). These data consisted of summated scores from thirteen items created by Chaney (2007) and Gutak et al. (1991). Mean scores were rated using a six-point Likert-type scale. Pearson product-moment coefficients were calculated to identify the relationships between the years of teaching experience, professional life phases, and work-life balance of respondents.

Research Question Four: How does commitment relate to agricultural educator retention? To answer research question four, mean scores, ranges, and standard deviations were used to analyze the data, measuring the degree of commitment reported by experienced agricultural educators ($n = 314$). Six items were reverse coded so that a high score indicated a high degree of commitment. The data consisted of summated scores from 11 items found in the Work Commitment Index (Blau et al., 1993). Mean scores were rated using a six-point Likert-type scale. Pearson product-moment coefficients were calculated to identify the relationships between the years of teaching experience, professional life phases, and commitment of respondents.

Research Questions Five: What are the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention? To answer research question five, Pearson Product Moments used to determine if a relationship between the variables exists. The extent of those relationships was then explored using regression analysis.

Summary

This study utilized a descriptive, correlational design. The accessible population of experienced agricultural educators in the southern region of the United States served as the participants in the study. The accessible population consisted of 1705 ($N = 1705$) agricultural educators with more than four years of teaching experience. The 177 participants completed either an electronic or paper instrument to identify the degree of influence exerted by their work engagement, commitment, and work-life balance on their decision to remain in the agricultural education profession. Caution should be taken when generalizing this study beyond the sample due to the difference between responders and nonresponders on the factor of absorption and overall work engagement.

Chapter IV

Findings

Chapter two provided the background indicating a need for further research into the retention of agricultural educators. It provided the grounds for exploring work engagement, work-life balance, and occupational commitment as potential influences on retention. Chapter three described the methods used to explore the variables of interest and their influence on the dependent variable, teacher retention. This chapter outlines the results of those methods of statistical analysis.

Purpose of the Study

The purpose of this study was to identify and describe agriculture teachers on factors related to career retention and to explore the relationships between agriculture teachers' work engagement, work-life balance, occupational commitment, and personal and career factors as they relate to the decision to remain in the teaching profession. Knowledge of these relationships may allow for a systematic approach to developing strategies to retain agricultural educators. The accessible population for this study consisted of experienced agricultural educators from the southern region of the United States who remained in the profession beyond four years.

Research Questions

The following research questions guided this study:

1. What are the demographic and career characteristics of experienced agricultural educators?
2. How does work engagement relate to agricultural educator retention?
3. How does work-life balance relate to agricultural educator retention?

4. How does occupational commitment relate to agricultural educator retention?
5. What are the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention?

Population

The target population for this study consisted of secondary agricultural educators who had completed a minimum of four years of teaching experience in the secondary agricultural education classroom. The study was limited to those accessible agricultural educators from the states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee, having a minimum of four years of teaching experience.

There were 1705 ($N = 1705$) experienced agricultural educators in the nine states comprising the accessible population. The sample population ($n = 314$) was calculated using Krejcie and Morgan's (1970) formula. The sample ($n = 314$) mirrored geographic representation by state, as well as gender. The study achieved 56% response rate. (See Table 2 *Stratification of Sample* and Table 5 *Stratification of Respondents*).

Research Question One

The first research question addressed the demographic and career characteristics of experienced agricultural educators. The data were analyzed with regard to individual characteristics (gender, type of professional training, highest degree held, age, years of teaching experience), family characteristics (number of children living in the home, age of those children), and agricultural education program characteristics (length of annual contract, number of agricultural educators in the program, number of students enrolled in the program).

Individual Characteristics. Less than one fifth of the experienced teachers, 18.6% ($n = 33$), in the study were female. The majority of the respondents were male agricultural educators consisting of 81.4% ($n = 144$). Teachers were asked to identify their professional training. Most of the respondents, 84.2% ($n = 149$), received a traditional four-year degree in agricultural education. Nearly two thirds of the respondents, 63.6% ($n = 112$), reported achieving a master's degree or higher. Table 8 summarizes the respondents' gender, type of professional training, and highest degree held.

Table 8

Summary of Demographic Data of Experienced Agricultural Educators (n = 177)

Demographic	<i>f</i>	%	Mode
Gender			Male
Female	33	18.6	
Male	144	81.4	
Type of Professional Training ^a			Traditional
Traditional, four-year degree	149	84.2	
Alternative certification	27	15.3	
Highest degree held ^a			Masters
Bachelors	43	24.3	
Bachelors +	21	11.9	
Masters	55	31.1	
Masters +	41	23.2	
Specialist	12	6.8	
Doctoral	4	2.3	

^a One response missing

The average age of respondents was 45.78 years ($SD = 9.97$), ranging between 27 and 67 years old. Teachers were asked to indicate their number of years of teaching experience. Responses ranged from 5 to 42 years with a mean of 19.95 ($SD = 10.11$).

Table 9 summarizes the age and years of experience of the respondents.

Table 9

Respondents' Age and Years of Teaching Experience (n = 176)

Characteristic	<i>M</i>	<i>MD</i>	<i>SD</i>	Range
Age	45.78	47.00	9.97	27-67
Years of teaching experience	19.94	19.50	10.11	5-42

Day (2008) identified professional life phases of teachers' careers. Teachers classified in Day's (2008) early induction phase, 0-3 years, were not of interest in this study of experienced agricultural educators. This study began with teachers who had completed a minimum of four years of teaching, placing them in their fifth year at the time of instrument distribution. Utilizing teachers in their fifth year and over, 13.0% ($n = 176$) of the respondents were in the induction stage of their career with 5-7 years of experience, 24.9% ($n = 176$) were in the early phase with 8-15 years experience, 22.0% were in the mid phase with 16-23 years of experience, 24.3% were in the late phase with 24-30 years of experience, and the remaining 15.3% were in the sunset phase of their career with 31 or more years of teaching experience. Table 10 summarizes the professional life phases of the respondents.

Table 10

Summary of Professional Life Phases of Experienced Agricultural Educators (n = 176)

Professional Life Phase	<i>f</i>	%	Mode
Induction, 5-7 years	23	13.0	Early Phase
Early, 8-15 years	44	24.9	
Mid, 16-23 years	39	22.0	
Late, 24-30 years	43	24.3	
Sunset, 31+ years	27	15.3	

Note. Researcher gave names to the phases; Day (2008) used only range of years to identify the categories.

Family Characteristics. Respondents were asked to provide information about their family characteristics. Over half, 61.8% ($n = 177$), reported having children living in their home. If children were reported, teachers were asked to provide the total number in the home as well as their ages. Of those with children, answers ranged from one child to six children in the home. In an open response question, teachers were asked to identify the ages of the children. The youngest reported was three weeks, the oldest 34 years. Respondents most frequently reported teenage children at home ($n = 47$). A number of respondents reported adult-aged children living in their home ($n = 27$). A total of 38 teachers ($n = 38$) reported having more than one child in the home with ages spanning across two or more age categories. One teacher reported as many as two adult children,

two teens, and two preschool grandchildren living in their home. Table 11 provides a summary of the family characteristics of respondents.

Table 11

Family Characteristics of Respondents (n = 177)

Characteristic	<i>f</i>	%	Mode
Report no children living in home	68	38.4	Have children living in home
Report children living in home	109	61.8	
Number of children in the home			Two children
One child	32	18.1	
Two children	51	28.8	
Three children	19	10.7	
Four children	3	1.7	
Five children	3	1.7	
Six children	1	0.6	
Age of children ^a			Teen
Preschool (0-5 years)	35	23.0	
Elementary age (6-12 years)	43	28.3	
Teen (13-18 years)	47	30.9	
Adult (19 years and over)	27	17.8	

Note^a. Teachers reporting more than one child often reported children in two or more age categories.

Program characteristics. Data concerning the respondents' work environments were also sought. Respondents were asked to report the length of their annual contract with their school district, the number of agricultural education teachers in their program, and the number of students enrolled in their program. Nearly three-fourths, 73.4% ($n = 176$), of the respondents reported securing a 12 month contract. The remaining responses included 11.5 months at 1.7% ($n = 176$), 11 months at 6.2% ($n = 176$), 10.5 months 6.2% ($n = 176$), 10 months at 9.6% ($n = 176$), and nine months at 2.3% ($n = 176$). Operating in a single teacher department was reported the most frequently at 49.2% ($n = 87$), followed by two teacher departments at 33.3% ($n = 59$), three teacher departments at 10.7% ($n = 19$), four teacher departments at 2.3% ($n = 4$). One educator worked in an eight teacher program (0.6%, $n = 1$). Two teachers reported a half-time instructor as well ($n = 2$). The educator contract length and number of teachers in the program are summarized in Table 12.

Table 12

Respondents' Annual Contract Length and Number of Teachers in the Program
(*n* = 176)

Characteristic	<i>f</i>	%	Mode
Annual contract length			12 month
12-month	130	73.4	
11 ½-month	3	1.7	
11-month	11	6.2	
10 ½-month	11	6.2	
10-month	17	9.6	
9-month	4	2.3	
Number of teachers in program ^a			Single teacher
Single teacher	87	49.2	
One and half teachers	1	0.6	
Two teachers	59	33.3	
Three teachers	19	10.7	
Three and half teachers	1	0.6	
Four teachers	4	2.3	
Eight teachers	1	0.6	

^a Five missing responses.

Teachers were asked to identify the number of students enrolled in their agricultural education program. The average number of students per program was 94.7 ($SD = 50.39$). The responses ranged from 11 to 450 students. Table 13 summarizes the data with relation to student enrollment.

Table 13

Student enrollment Central Tendencies (n = 164)

<i>M</i>	<i>Md</i>	<i>SD</i>	Range
94.70	85.0	50.39	11-450

Research Question Two

The second research question asked how work engagement relates to agricultural educator retention. The degree of teacher work engagement was measured using the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003). The data consisted of three factors, vigor, dedication, and absorption, identified by the authors in the seventeen item instrument. Participants were asked to rate themselves on a seven point Likert-type scale: 1) *never*; 2) *almost never/a few times a year or less*; 3) *rarely/once a month or less*; 4) *sometimes/a few times a month*; 5) *often/once a week*; 6) *very often/a few times a week*; and, 7) *always/every day*.

Vigor. Six statements comprised the data for vigor. *At my work I feel bursting with energy*, garnered 10.7% ($n = 177$) of the responses as always/every day, 46.9% ($n = 177$) very often/a few times a week, and 20.3% ($n = 177$) often/once a week. The remaining responses included 16.4% ($n = 177$) sometimes/a few times a month, 2.8% (n

= 177) rarely/once a month or less, 1.7% ($n = 177$) almost never/a few times a year or less, and 1.1% ($n = 177$) never.

The second item, *at my job I feel strong and vigorous*, received 15.3% ($n = 177$) of responses as always/every day, 48.6% ($n = 177$) very often/a few times a week, and 20.9% ($n = 177$) often/once a week. The remaining responses included 10.7% ($n = 177$) sometimes/a few times a month, 3.4% ($n = 177$) rarely/once a month or less, 0.6% ($n = 177$) almost never/a few times a year or less, and 0.6% ($n = 177$) never.

The third item, *when I get up in the morning, I feel like going to work*, received 31.6% ($n = 177$) responding always/every day, 34.5% ($n = 177$) very often/a few times a week, and 18.1% ($n = 177$) often/once a week. The remaining responses included 10.7% ($n = 177$) sometimes/a few times a month, 1.7% ($n = 177$) rarely/once a month or less, 2.3% ($n = 177$) almost never/a few times a year or less, and 1.1% ($n = 177$) never.

The fourth item, *I can continue working for very long periods of time*, received 29.4% ($n = 177$) responding always/every day, 48.0% ($n = 177$) very often/a few times a week, and 14.7% ($n = 177$) often/once a week. The remaining responses included 7.3% ($n = 177$) sometimes/a few times a month, 0.6% ($n = 177$) rarely/once a month or less. There were no responses for almost never/a few times a month or never.

The fifth item, *at my job, I am very resilient, mentally*, received 19.8% ($n = 177$) responding always/every day, 41.8% ($n = 177$) very often/a few times a week, and 26.0% ($n = 177$) often/once a week. The remaining responses included 8.5% ($n = 177$) sometimes/a few times a month, 3.4% ($n = 177$) rarely/once a month or less, and 0.6% ($n = 177$) almost never/a few times a year or less. There were no responses for never.

The sixth item, *at my work I always persevere, even when things do not go well*, received 38.4% ($n = 176$) responding always/every day, 31.1% ($n = 176$) very often/a few times a week, and 22.0% ($n = 176$) often/once a week. The remaining responses included 6.2% ($n = 176$) sometimes/a few times a month and 1.7% ($n = 176$) rarely/once a month or less. There were no responses for almost never/a few times a year or less and never.

Table 14 summarizes the data for vigor as reported from the UWES (Schaufeli & Bakker, 2003).

Table 14
UWES—Vigor Frequencies (n = 177)

Statement	1		2		3		4		5		6		7	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	2	1.1	3	1.7	5	2.8	29	16.4	36	20.3	83	46.9	19	10.7
2	1	0.6	1	0.6	6	3.4	19	10.7	37	20.9	86	48.6	27	15.3
3	2	1.1	4	2.3	3	1.7	19	10.7	32	18.1	61	34.5	56	31.6
4	0	0.0	0	0.0	1	0.6	13	7.3	26	14.7	85	48.0	52	29.4
5	0	0.0	1	0.6	6	3.4	15	8.5	46	26.0	74	41.8	35	19.8
6 ^a	0	0.0	0	0.0	3	1.7	11	6.2	39	22.0	55	31.1	68	38.4

Note. Statement 1: *At my work, I feel bursting with energy.* Statement 2: *At my job, I feel strong and vigorous.* Statement 3: *When I get up in the morning, I feel like going to work.* Statement 4: *I can continue working for very long periods at a time.* Statement 5: *At my job, I am very resilient, mentally.* Statement 6: *At my work I always persevere, even when things do not go well.*

Note. 1 = Never; 2 = Almost Never/A few times a year or less; 3 = Rarely/Once a month or less; 4 = Sometimes/A few times a month; 5 = Often/Once a week; 6 = Very often/A few times a week; 7 = Always/Every day.

Note^a. One response missing ($n = 176$)

Vigor was the first factor in measuring respondents' degree of work engagement. It was necessary to calculate an average score for vigor responses so that it could be used in determining overall work engagement for this study, as well as exploring correlations with other variables of interest. For statement one, *at my work, I feel bursting with energy*, the average response was 5.37 ($SD = 1.18$). Statement two, *at my job, I feel strong and vigorous*, yielded a mean of 5.58 ($SD = 1.08$). Statement three, *when I get up in the morning, I feel like going to work*, produced a mean of 5.72 ($SD = 1.29$). Statement four, *I can continue working for very long periods at a time*, generated a mean of 5.98 ($SD = 0.89$). Statement five, *at my job, I am very resilient, mentally*, garnered a mean of 5.64 ($SD = 1.04$). Statement six, *at my work I always persevere, even when things do not go well*, bore a mean of 5.99 ($SD = 1.01$). The average score vigor was 5.71 ($SD = 0.84$). Table 15 summarizes the mean scores for the statements associated with vigor.

Table 15

UWES—Vigor Mean Scores (n = 177)

Statement	<i>M</i>	<i>Md</i>	<i>SD</i>	Range
At my work, I feel bursting with energy.	5.37	6.00	1.18	1-7
At my job, I feel strong and vigorous.	5.58	6.00	1.08	1-7
When I get up in the morning, I feel like going to work.	5.72	6.00	1.29	1-7
I can continue working for very long periods at a time.	5.98	6.00	0.89	3-7
At my job, I am very resilient, mentally.	5.64	6.00	1.04	2-7
At my work I always persevere, even when things do not go well. ^a	5.99	6.00	1.01	3-7
Average score of vigor responses (n = 176)	5.71		0.84	

Note^a. One response was missing and was not used in calculating the mean for vigor responses.

An independent samples t-test revealed that on average, men had more vigor ($M = 5.77$, $SE = 0.07$) than females ($M = 5.44$, $SE = 0.18$). This difference was not significant ($t(174) = 1.74$, $p > .05$; effect size $r = .13$).

Dedication. Five statements comprised the data for dedication. The first item, *I find the work that I do full of meaning and purpose*, garnered 42.9% ($n = 177$) of the responses as always/every day, 36.2% ($n = 177$) very often/a few times a week, and 10.2% ($n = 177$) often/once a week. The remaining responses included 9.6% ($n = 177$) sometimes/a few times a month, 0.6% ($n = 177$) rarely/once a month or less, 0.6% ($n = 177$) almost never/a few times a year or less. There were no responses for never.

The second item, *I am enthusiastic about my job*, received 37.9% ($n = 176$) responding always/every day, 40.1% ($n = 176$) very often/a few times a week, and 11.3% ($n = 176$) often/once a week. The remaining responses included 8.5% ($n = 176$) sometimes/a few times a month, 1.1% ($n = 176$) rarely/once a month or less, and 0.6% ($n = 176$) almost never/a few times a year or less. There were no responses for never.

The third item, *my job inspires me*, received 28.2% ($n = 177$) responding always/every day, 41.2% ($n = 177$) very often/a few times a week, and 18.1% ($n = 177$) often/once a week. The remaining responses included 9.0% ($n = 177$) sometimes/a few times a month, 2.8% ($n = 177$) rarely/once a month or less, 0.6% ($n = 177$) almost never/a few times a year or less. There were no responses for never.

The fourth item, *I am proud of the work that I do*, received 57.1% ($n = 176$) responding always/every day, 33.3% ($n = 176$) very often/a few times a week, and 6.2% ($n = 176$) often/once a week. The remaining responses, 2.8% ($n = 176$) were reported for sometimes/a few times a month. There were no responses for rarely/once a month or less, almost never/a few times a year or less, or never.

The fifth item, *to me, my job is challenging*, received 45.2% ($n = 177$) responding always/every day, 33.9% ($n = 177$) very often/a few times a week, and 13.0% ($n = 177$) often/once a week. The remaining responses included 4.0% ($n = 177$) sometimes/a few times a month, 3.4% ($n = 177$) rarely/once a month or less, and 0.6% ($n = 177$) almost never/a few times a year or less. There were no responses for never.

Table 16 summarizes the data for dedication as reported from the UWES (Schaufeli & Bakker, 2003).

Table 16

UWES—Dedication Frequencies (n = 177)

Statement	1		2		3		4		5		6		7	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
1	0	0.0	1	0.6	1	0.6	17	9.6	18	10.2	64	36.2	76	42.9
2 ^a	0	0.0	1	0.6	2	1.1	15	8.5	20	11.3	71	40.1	67	37.9
3	0	0.0	1	0.6	5	2.8	16	9.0	32	18.1	73	41.2	50	28.2
4 ^a	0	0.0	0	0.0	0	0.0	5	2.8	11	6.2	59	33.3	101	57.1
5	0	0.0	1	0.6	6	3.4	7	4.0	23	13.0	60	33.9	80	45.2

Note. Statement 1: *I find the work that I do full of meaning and purpose.* Statement 2: *I am enthusiastic about my job.* Statement 3: *My job inspires me.* Statement 4: *I am proud of the work that I do.* Statement 5: *To me, my job is challenging.*

Note. 1 = Never; 2 = Almost Never/A few times a year or less; 3 = Rarely/Once a month or less; 4 = Sometimes/A few times a month; 5 = Often/Once a week; 6 = Very often/A few times a week; 7 = Always/Every day.

Note^a. One response missing.

Dedication was the second factor in measuring respondents' degree of work engagement. It was necessary to calculate an average score for dedication responses so that it could be used in determining overall work engagement for this study, as well as exploring correlations with other variables of interest. For statement one, *I find the work that I do full of meaning and purpose*, the average response was 6.10 ($SD = 1.03$). Statement two, *I am enthusiastic about my job*, yielded a mean of 6.04 ($SD = 1.02$). Statement three, *my job inspires me*, produced a mean of 5.81 ($SD = 1.07$). Statement four, *I am proud of the work that I do*, generated a mean of 6.45 ($SD = 0.74$). Statement

five, *to me, my job is challenging*, garnered a mean of 6.12 ($SD = 1.06$). The average score for dedication was 6.11 ($SD = 0.79$). Table 17 summarizes the mean scores for the statements associated with dedication.

Table 17

UWES—Dedication Mean Scores (n = 177)

Statement	<i>M</i>	<i>Md</i>	<i>SD</i>	Range
I find the work that I do full of meaning and purpose.	6.10	6.00	1.03	2-7
I am enthusiastic about my job. ^a	6.04	6.00	1.02	2-7
My job inspires me.	5.81	6.00	1.07	2-7
I am proud of the work that I do. ^a	6.45	7.00	0.74	4-7
To me, my job is challenging.	6.12	6.00	1.06	2-7
Average score of dedication responses (n = 175)	6.11		0.79	

Note^a. One response missing and was not used in calculating the mean score for dedication responses.

An independent samples t-test revealed that on average, women were more dedicated ($M = 6.12$, $SE = 0.14$) than males ($M = 6.11$, $SE = 0.07$). This difference was not significant ($t(173) = -0.10$, $p > .05$; effect size $r = .01$).

Absorption. Six statements comprised the data for absorption. The first item, *time flies when I'm working*, garnered 48.6% ($n = 177$) of the responses as always/every day, 34.5% ($n = 177$) very often/a few times a week, and 10.2% ($n = 177$) often/once a week. The remaining responses included 4.5% ($n = 177$) sometimes/a few times a

month, 1.7% ($n = 177$) rarely/once a month or less, 0.6% ($n = 177$), and almost never/a few times a year or less. There were no responses for never.

The second item, *when I am working, I forget everything else around me*, received 23.2% ($n = 176$) of responses as always/every day, 33.9% ($n = 176$) very often/a few times a week, and 16.4% ($n = 176$) often/once a week. The remaining responses included 12.4% ($n = 176$) sometimes/a few times a month, 7.9% ($n = 176$) rarely/once a month or less, 2.3% ($n = 176$) almost never/a few times a year or less, and 3.4% ($n = 176$) never.

The third item, *I feel happy when I am working intensely*, received 39.5% ($n = 177$) responding always/every day, 37.9% ($n = 177$) very often/a few times a week, and 13.6% ($n = 177$) often/once a week. The remaining responses included 7.3% ($n = 177$) for sometimes/a few times a month and 1.7% ($n = 177$). There were no responses almost never/a few times a year or less, or never.

The fourth item, *I am immersed in my work*, received 35.0% ($n = 176$) responding always/every day, 42.4% ($n = 176$) very often/a few times a week, and 15.3% ($n = 176$) often/once a week. The remaining responses included 5.6% ($n = 176$) sometimes/a few times a month and 1.1% ($n = 176$) rarely/once a month or less. There were no responses for almost never/a few times a month or never.

The fifth item, *I get carried away when I'm working*, received 28.2% ($n = 177$) responding always/every day, 37.9% ($n = 177$) very often/a few times a week, and 21.5% ($n = 177$) often/once a week. The remaining responses included 8.5% ($n = 177$) sometimes/a few times a month, 1.1% ($n = 177$) rarely/once a month or less, 0.6% ($n = 177$) almost never/a few times a year or less, and 2.3% ($n = 177$) for never.

The sixth item, *it is difficult to detach myself from my job*, received 31.1% ($n = 177$) responding always/every day, 29.9% ($n = 177$) very often/a few times a week, and 20.9% ($n = 177$) often/once a week. The remaining responses included 10.7% ($n = 177$) sometimes/a few times a month, 3.4% ($n = 177$) rarely/once a month or less, 0.6% ($n = 177$) almost never/a few times a year or less, and 3.4% ($n = 177$) never. Table 18 summarizes the data for absorption as reported from the UWES (Schaufeli & Bakker, 2003).

Table 18
UWES—Absorption Frequencies (n = 177)

Statement	1		2		3		4		5		6		7	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	0	0.0	1	0.6	3	1.7	8	4.5	18	10.2	61	34.5	86	48.6
2 ^a	6	3.4	4	2.3	14	7.9	22	12.4	29	16.4	60	33.9	41	23.2
3	0	0.0	0	0.0	3	1.7	13	7.3	24	13.6	67	37.9	70	39.5
4 ^a	0	0.0	0	0.0	2	1.1	10	5.6	27	15.3	75	42.4	62	35.0
5	4	2.3	1	0.6	2	1.1	15	8.5	38	21.5	67	37.9	50	28.2
6	6	3.4	1	0.6	6	3.4	19	10.7	37	20.9	53	29.9	55	31.1

Note. Statement 1: *Time flies when I'm working*. Statement 2: *When I am working, I forget everything else around me*. Statement 3: *I feel happy when I am working intensely*. Statement 4: *I am immersed in my work*. Statement 5: *I get carried away when I'm working*. Statement 6: *It is difficult to detach myself from my job*.

Note. 1 = Never; 2 = Almost Never/A few times a year or less; 3 = Rarely/Once a month or less; 4 = Sometimes/A few times a month; 5 = Often/Once a week; 6 = Very often/A few times a week; 7 = Always/Every day.

Note^a. One response missing.

Absorption was the third factor in measuring respondents' degree of work engagement. It was necessary to calculate an average score for absorption responses so that it could be used in determining overall work engagement for this study, as well as exploring correlations with other variables of interest. For statement one, *time flies when I'm working*, the average response was 6.22 ($SD = 0.98$). Statement two, *when I am working, I forget everything else around me*, yielded a mean of 5.32 ($SD = 1.54$). Statement three, *I feel happy when I am working intensely*, produced a mean of 6.06 ($SD = 0.99$). Statement four, *I am immersed in my work*, generated a mean of 6.05 ($SD = 0.92$). Statement five, *I get carried away when I'm working*, garnered a mean of 5.73 ($SD = 1.24$). Statement six, *it is difficult to detach myself from my job*, bore a mean of 5.59 ($SD = 1.43$). The average score absorption was 5.83 ($SD = 0.84$). Table 19 summarizes the mean scores for the statements associated with absorption reported from the UWES (Schaufeli & Bakker, 2003).

Table 19

UWES—Absorption Mean Scores (n = 177)

Statement	<i>M</i>	<i>Md</i>	<i>SD</i>	Range
Time flies when I'm working.	6.22	6.00	0.98	2-7
When I am working, I forget everything else around me. ^a	5.32	6.00	1.54	1-7
I feel happy when I am working intensely.	6.06	6.00	0.99	3-7
I am immersed in my work. ^a	6.05	6.00	0.92	3-7
I get carried away when I'm working.	5.73	6.00	1.24	1-7
It is difficult to detach myself from my job.	5.59	6.00	1.43	1-7
Average score of absorption responses (n = 175)	5.83		0.84	

Note^a. One response missing was not used to calculate the mean score for absorption responses.

An independent samples t-test revealed that on average, men ($M = 5.83$, $SE = 0.07$) and women ($M = 5.83$, $SE = 0.15$) were equally absorbed in their work.

To gauge overall work engagement, it was necessary to calculate the average score of the three factors, vigor, dedication, and absorption. The grand mean for work engagement was 5.87 ($SD = 0.75$) ($n = 173$). Table 20 summarizes the mean data for the three factors of work engagement reported from the UWES (Schaufeli & Bakker, 2003).

Table 20

UWES—Mean Scores For Work Engagement Factors

Factor	<i>M</i>	<i>Md</i>	<i>SD</i>
Vigor (<i>n</i> = 176)	5.71	5.83	0.84
Dedication (<i>n</i> = 175)	6.11	6.40	0.79
Absorption (<i>n</i> = 176)	5.83	6.00	0.84
Engagement average score (<i>n</i> = 173)	5.87	6.06	0.75

Note. Four scores were missing and were not used to calculate the grand mean for job satisfaction and engagement.

Work Engagement and Retention. Teachers who remain in the teaching profession as a classroom instructor were considered retained, thus professional life categories, a reflection of years of experience, was utilized as the dependent variable. To describe the relationship between work engagement and agricultural educator retention, a Pearson Product Moment Correlation analysis was conducted. Professional life phase was correlated with the three factors, vigor, dedication, and absorption, and the average score as reported for work engagement. From the sample (*n* = 173), the data analysis indicated a positive correlation of low magnitude (Davis, 1971) between overall work engagement and professional life phase ($r = .19$). The data reveal positive correlations of low magnitudes between professional life phase and vigor ($r = .17$), dedication ($r = .19$) and absorption ($r = .14$). Table 21 summarizes the relationship between professional life phase and the factors of engagement.

Table 21

Pearson Product Moment Correlations (r) Between Professional Life Phase, Factors of Engagement, and Engagement (n = 173)

Characteristic	1	2	3	4	5
1. Professional Life Phase	-	.17	.19	.14	.19
2. Vigor		-	.81	.72	.93
3. Dedication			-	.71	.91
4. Absorption				-	.90
5. Engagement					-

* $p < .05$ a priori

Research Question Three

The fourth research question asked how work-life balance related to agricultural educator retention. The degree of work-life balance was measured using five statements from Chaney (2007) and eight statements from Gutak et al. (1991). The 11 items addressed respondents' perception of work-life balance, the degree of work interfering with family, and the degree of family interfering with work. Participants were asked to rate themselves on a six point Likert-type scale: 1) *strongly disagree*; 2) *moderately disagree*, 3) *slightly disagree*; 4) *slightly agree*; 5) *moderately agree*; and, 6) *strongly agree*.

Perceptions of work-life balance. The first item was *you are able to balance quality time between your work and your family/personal commitments*. Respondents reported 16.4% ($n = 177$) strongly agree, 34.5% ($n = 177$) moderately agree, and 19.8%

($n = 177$) slightly agree. The remaining responses included 11.3% ($n = 177$) slightly disagree, 12.4% ($n = 177$) moderately disagree, and 5.6% ($n = 177$) strongly disagree.

The second item was *you are able to balance work demands without unreasonable compromises on family/personal responsibilities*. Respondents reported 13.6% ($n = 177$) strongly agree, 31.6% ($n = 177$) moderately agree, and 24.3% ($n = 177$) slightly agree. The remaining responses included 12.4% ($n = 177$) slightly disagree, 14.7% ($n = 177$) moderately disagree, and 3.4% ($n = 177$) strongly disagree.

The third item was *you are able to have a fulfilling personal life and adequately perform your work responsibilities*. Respondents reported 24.3% ($n = 176$) strongly agree, 33.3% ($n = 176$) moderately agree, and 23.2% ($n = 176$) slightly agree. The remaining responses included 5.6% ($n = 176$) slightly disagree, 9.6% ($n = 176$) moderately disagree, and 3.4% ($n = 176$) strongly disagree.

The fourth item was *a good work-life balance for agriscience teachers helps provide a more effective and successful agricultural education profession*. Respondents reported 53.1% ($n = 177$) strongly agree, 33.9% ($n = 177$) moderately agree, and 9.0% ($n = 177$) slightly agree. The remaining responses included 2.3% ($n = 177$) slightly disagree, 1.1% ($n = 177$) moderately disagree, and 0.6% ($n = 177$) strongly disagree.

The fifth item was *a good work-life balance for agriscience teachers helps retain teachers in the profession*. Respondents reported 56.5% ($n = 175$) strongly agree, 31.6% ($n = 175$) moderately agree, and 9.0% ($n = 175$) slightly agree. The remaining responses, 1.7% ($n = 175$) were in the moderately disagree category. There were no responses for slightly disagree or strongly disagree.

Table 22 summarizes the data for perceptions of work-life balance as reported by respondent agricultural education teachers.

Table 22

Perceptions of Work-Life Balance Frequencies (n = 177)

Statement	1		2		3		4		5		6	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	10	5.6	22	12.4	20	11.3	35	19.8	61	34.5	29	16.4
2	6	3.4	26	14.7	22	12.4	43	24.3	56	31.6	24	13.6
3 ^a	6	3.4	17	9.6	10	5.6	41	23.2	59	33.3	43	24.3
4	1	0.6	2	1.1	4	2.3	16	9.0	60	33.9	94	53.1
5 ^b	0	0.0	0	0.0	3	1.7	16	9.0	56	31.6	100	56.5

Note. Statement 1: *You are able to balance quality time between your work and your family/personal commitments.* Statement 2: *You are able to balance work demands without unreasonable compromises on family/personal responsibilities.* Statement 3: *You are able to have a fulfilling personal life and adequately perform your work responsibilities.* Statement 4: *A good work-life balance for agriscience teachers helps provide a more effective and successful agricultural education profession.* Statement 5: *A good work-life balance for agriscience teachers helps retain teachers in the profession.*

Note. 1 = Strongly Disagree; 2 = Moderately Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Moderately Agree; 6 = Strongly Agree.

^aOne response missing.

^bTwo responses missing.

Perception of work-life balance was the first factor in measuring respondents' degree of work-life balance. It was necessary to calculate an average score for perceptions of work-life balance responses so that it could be used in determining overall work-life balance for this study, as well as exploring correlations with other variables of interest. For statement one, *you are able to balance quality time between your work and*

your family/personal commitments, the average response was 4.14 ($SD = 1.45$).

Statement two, *you are able to balance work demands without unreasonable compromises on family/personal responsibilities*, yielded a mean of 4.07 ($SD = 1.37$).

Statement three, *you are able to have a fulfilling personal life and adequately perform your work responsibilities*, produced a mean of 4.47 ($SD = 1.36$). Statement four, *a good work-life balance for agriscience teachers helps provide a more effective and successful agricultural education profession*, generated a mean of 5.34 ($SD = 0.89$). Statement five, *a good work-life balance for agriscience teachers helps retain teachers in the profession*, garnered a mean of 5.43 ($SD = 0.80$). Table 23 summarizes the mean scores for the statements associated with perceptions of work-life balance.

Table 23

Perceptions of Work-Life Balance Mean Scores (n = 177)

Statement	<i>M</i>	<i>Md</i>	<i>SD</i>	Range
You are able to balance quality time between your work and your family/personal commitments.	4.14	5.00	1.45	1-6
You are able to balance work demands without unreasonable compromises on family/personal responsibilities.	4.07	4.00	1.37	1-6
You are able to have a fulfilling personal life and adequately perform your work responsibilities. ^a	4.47	5.00	1.36	1-6
A good work-life balance for agriscience teachers helps provide a more effective and successful agricultural education profession.	5.34	6.00	0.89	1-6
A good work-life balance for agriscience teachers helps retain teachers in the profession. ^b	5.43	6.00	0.80	1-6
Average score of perceptions of work-life balance responses (n = 174)	4.69		0.93	

^aOne response missing.^bTwo responses missing.

An independent samples t-test revealed that on average, men perceived creating more balance ($M = 4.73$, $SE = 0.07$) than females ($M = 4.51$, $SE = 0.19$). This difference was not significant ($t(172) = 1.22$, $p > .05$; effect size $r = .09$).

Work interfering with family. *After work, I come home too tired to do some of the things I'd like to do* generated responses of 15.3% ($n = 177$) strongly agree, 24.3% (n

= 177) moderately agree, and 26.6% ($n = 177$) slightly agree. There were no responses for moderately agree. The remaining responses included 14.7% ($n = 177$) slightly disagree, 9.6% ($n = 177$) moderately disagree, and 9.6% ($n = 177$) strongly disagree.

The second item was *on the job, I have so much work to do that it takes away from my personal interests*. Respondents reported 14.7% ($n = 176$) strongly agree, 27.7% ($n = 176$) moderately agree, and 22.6% ($n = 176$) slightly agree. The remaining responses included 15.8% ($n = 176$) slightly disagree, 11.3% ($n = 176$) moderately disagree, and 7.3.0% ($n = 176$) strongly disagree.

The third item was *my family/friends dislike how often I am preoccupied with my work while I am at home*. Respondents reported 8.5% ($n = 177$) strongly agree, 14.7% ($n = 177$) moderately agree, and 21.5% ($n = 177$) slightly agree. The remaining responses included 19.2% ($n = 177$) slightly disagree, 19.8% ($n = 177$) moderately disagree, and 15.4% ($n = 177$) strongly disagree.

The final item was *my work takes up time that I'd like to spend with family/friends*. Respondents reported 13.6% ($n = 176$) strongly agree, 16.9% ($n = 176$) moderately agree, and 23.7% ($n = 176$) slightly agree. The remaining responses included 19.2% ($n = 176$) slightly disagree, 13.0% ($n = 176$) moderately disagree, and 13.0% ($n = 176$) strongly disagree.

Table 24 summarizes the data for work interfering with family life as reported by respondent agricultural education teachers.

Table 24

Work Interfering With Family Life Frequencies (n = 177)

Statement	1		2		3		4		5		6	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	17	9.6	17	9.6	26	14.7	47	26.6	43	24.3	27	15.3
2 ^a	13	7.3	20	11.3	28	15.8	40	22.6	49	27.7	26	14.7
3	15	8.5	26	14.7	38	21.5	34	19.2	35	19.8	29	16.4
4 ^a	24	13.6	30	16.9	42	23.7	34	19.2	23	13.0	23	13.0

Note. Statement 1: *After work, I come home too tired to do some of the things I'd like to do.* Statement 2: *On the job, I have so much work to do that it takes away from my personal interests.* Statement 3: *My family/friends dislike how often I am preoccupied with my work while I am at home.* Statement 4: *My work takes up time that I'd like to spend with family/friends.*

Note. 1 = Strongly Disagree; 2 = Moderately Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Moderately Agree; 6 = Strongly Agree.

^aOne response missing.

Work interfering with family life was the second factor in measuring respondents' degree of work-life balance. It was necessary to calculate an average score for work interfering with family responses to determine overall work-life balance for this study. For statement one, *after work, I come home too tired to do some of the things I'd like to do*, the average response was 3.92 ($SD = 1.50$). Statement two, *on the job, I have so much work to do that it takes away from my personal interests*, yielded a mean of 3.97 ($SD = 1.47$). Statement three, *my family/friends dislike how often I am preoccupied with my work while I am at home*, produced a mean of 3.24 ($SD = 1.54$). Statement four, *my*

work takes up time that I'd like to spend with family/friends, generated a mean of 3.60 ($SD = 1.57$).

Table 25 summarizes the mean scores for the statements associated with work interfering with family life.

Table 25

Work Interfering With Family Life Mean Scores (n = 177)

Statement	<i>M</i>	<i>Md</i>	<i>SD</i>	Range
After work, I come home too tired to do some of the things I'd like to do.	3.92	4.00	1.50	1-6
On the job, I have so much work to do that it takes away from my personal interests. ^a	3.97	4.00	1.47	1-6
My family/friends dislike how often I am preoccupied with my work while I am at home.	3.24	3.00	1.54	1-6
My work takes up time that I'd like to spend with family/friends. ^a	3.60	4.00	1.57	1-6
Average score of work interfering with family life responses (n = 175)	3.68		1.31	

Note^a. One response missing and was not used to calculate the mean score for work interfering with family life responses.

An independent samples t-test revealed that on average, females reported more work interfering with family ($M = 3.91$, $SE = 0.23$) than males ($M = 3.63$, $SE = 0.10$).

This difference was not significant ($t(173) = -1.10$, $p > .05$; effect size $r = .08$).

Family interfering with work. *I'm often too tired at work because of the things I have to do at home* generated responses of 2.3% ($n = 177$) strongly agree, 4.5% ($n = 177$) moderately agree, and 16.9% ($n = 177$) slightly agree. The remaining responses

included 20.3% ($n = 177$) slightly disagree, 26.0% ($n = 177$) moderately disagree, and 29.9% ($n = 177$) strongly disagree.

The second item was *my personal demands are so great that it takes away from my work*. Respondents reported 0.6% ($n = 177$) as strongly agree, 4.5% ($n = 177$) moderately agree, and 7.9% ($n = 177$) slightly agree. The remaining responses included 19.8% ($n = 177$) slightly disagree, 32.2% ($n = 177$) moderately disagree, and 35.0% ($n = 177$) strongly disagree.

The third item was *my administration and peers dislike how often I am preoccupied with my personal life while at work*. Respondents reported 1.1% ($n = 177$) strongly agree, 1.7% ($n = 177$) moderately agree, and 4.0% ($n = 177$) slightly agree. The remaining responses included 7.9% ($n = 177$) slightly disagree, 16.4% ($n = 177$) moderately disagree, and 68.9% ($n = 177$) strongly disagree.

The final item was *my personal life takes up time that I'd like to spend at work*. Respondents reported 0.6% ($n = 177$) strongly agree, 0.6% ($n = 177$) moderately agree, and 0.6% ($n = 177$) slightly agree. The remaining responses included 13.6% ($n = 177$) slightly disagree, 18.6% ($n = 177$) moderately disagree, and 66.1% ($n = 177$) strongly disagree.

Table 26 summarizes the data for family interfering with work.

Table 26

Family Interfering With Work Life Frequencies (n = 177)

Statement	1		2		3		4		5		6	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	53	29.9	46	26.0	36	20.3	30	16.9	8	4.5	4	2.3
2	62	35.0	57	32.2	35	19.8	14	7.9	8	4.5	1	0.6
3	122	68.9	29	16.4	14	7.9	7	4.0	3	1.7	2	1.1
4	177	66.1	33	18.6	24	13.6	1	0.6	1	0.6	1	0.6

Note. Statement 1: *I'm often too tired at work because of the things I have to do at home.* Statement 2: *My personal demands are so great that it takes away from my work.* Statement 3: *My administration and peers dislike how often I am preoccupied with my personal life while at work.* Statement 4: *My personal life takes up time that I'd like to spend at work.*

Note. 1 = Strongly Disagree; 2 = Moderately Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Moderately Agree; 6 = Strongly Agree.

Family interfering with work life was the third factor in measuring respondents' degree of work-life balance. It was necessary to calculate an average score for family interfering with work responses to determine overall work-life balance for this study. For statement one, *I'm often too tired at work because of the things I have to do at home*, the average response was 2.47 ($SD = 1.32$). Statement two, *my personal demands are so great that it takes away from my work*, yielded a mean of 2.16 ($SD = 1.16$). Statement three, *my administration and peers dislike how often I am preoccupied with my personal life while at work*, produced a mean of 1.56 ($SD = 1.04$). Statement four, *my personal life takes up time that I'd like to spend at work*, generated a mean of 1.53 ($SD = 0.86$).

Table 27 summarizes the mean scores for the statements associated with family interfering with work life.

Table 27

Family Interfering With Work Life Mean Scores (n = 177)

Statement	<i>M</i>	<i>Md</i>	<i>SD</i>	Range
I'm often too tired at work because of the things I have to do at home.	2.47	2.00	1.32	1-6
My personal demands are so great that it takes away from my work.	2.16	2.00	1.16	1-6
My administration and peers dislike how often I am preoccupied with my personal life while at work.	1.57	1.00	1.04	1-6
My personal life takes up time that I'd like to spend at work.	1.53	1.00	0.86	1-6
Average score of family interfering with work life responses	1.93		0.86	

An independent samples t-test revealed that on average, males reported more family interference with work ($M = 1.96$, $SE = 0.08$) than females ($M = 1.81$, $SE = 0.11$). This difference was not significant ($t(175) = 1.09$, $p > .05$; effect size $r = .08$).

To gauge overall work-life balance, it was necessary to calculate the average score of the three factors, perceptions of work-life balance, work interference with family life, and family interference with work life. The grand mean for work-life balance was 3.44 ($SD = 0.54$) ($n = 173$). Table 28 summarizes the mean data for the three factors of work-life balance.

Table 28

Mean Scores for Work-Life Balance Factors

Factor	<i>M</i>	<i>Md</i>	<i>SD</i>
Perceptions of creating balance (<i>n</i> = 174)	4.69	4.80	0.93
Work interfering with family (<i>n</i> = 175)	3.68	3.75	1.31
Family interfering with work (<i>n</i> = 177)	1.93	1.75	0.86
Work-life balance average score (<i>n</i> = 173)	3.44	3.47	0.54

Work-life Balance and Retention. Teachers who remain in the teaching profession as a classroom instructor were considered retained. To describe the relationship between work-life balance in relation to agricultural educator retention a Pearson Product Moment Correlation was conducted. Professional life phase was correlated with perception of creating work-life balance, work interfering with family, and family interfering with work, and the average score as reported for work-life balance. From the sample (*n* = 173), the data analysis indicated a negligible correlation (Davis, 1971) between work-life balance and professional life phase ($r = .02$). Phase of professional life yielded negative, low to negligible magnitude correlations with work interfering with family ($r = -.12$) and family interfering with work ($r = -.06$). The data does reveal a positive correlation of moderate magnitude between the perception of

creating balance and the phase of professional life ($r = .25$). Table 29 summarizes the correlations for work-life balance and professional life phase.

Table 29

Pearson-Product-Moment Correlations (r) Between Professional Life Phase and Work-life Balance (n = 173)

Characteristic	1	2	3	4	5
1. Professional life phases	-	.25	-.12	-.06	.02
2. Perceptions of creating work-life balance		-	-.41	-.27	.09
3. Work interference with family			-	.31	.75
4. Family interference with work				-	.64
5. Work-life balance					-

* $p < .05$ a priori

Research Question Four

The third research question asked how occupational commitment related to agricultural educator retention. The degree of teacher occupational commitment was measured using a portion of Blau et al.'s Work Commitment Index (1993). The index

consisted of 11 questions that addressed respondents' occupational commitment.

Participants were asked to rate themselves on a six point Likert-type scale: 1) *strongly disagree*; 2) *moderately disagree*, 3) *slightly disagree*; 4) *slightly agree*; 5) *moderately agree*; and, 6) *strongly agree*. Items one, four, six, eight, 10, and 11 were reverse coded so that a high score indicated a high degree of commitment.

The first item was *if I could, I would go into a different occupation*. This item was reverse coded so that a high score would reflect the respondent's desire to remain in the occupation. Respondents reported 38.4% ($n = 176$) strongly agree, 18.6% ($n = 176$) moderately agree, and 8.5% ($n = 176$) slightly agree. The remaining responses included 15.8% ($n = 176$) slightly disagree, 14.7% ($n = 176$) moderately disagree, and 3.4% ($n = 176$) strongly disagree.

The second item was *I can see myself in this occupation for many years*. Respondents reported 43.5% ($n = 177$) strongly agree, 26.6% ($n = 177$) moderately agree, and 15.8% ($n = 177$) slightly agree. The remaining responses included 6.2% ($n = 177$) slightly disagree, 5.1% ($n = 177$) moderately disagree, and 2.8% ($n = 177$) strongly disagree.

The third item was *my chosen occupation is a good choice*. Respondents reported 54.8% ($n = 177$) strongly agree, 32.2% ($n = 177$) moderately agree, and 8.5% ($n = 177$) slightly agree. The remaining responses included 1.1% ($n = 177$) slightly disagree, 1.1% ($n = 177$) moderately disagree, and 2.3% ($n = 177$) strongly disagree.

The fourth item was *if I could, I would not choose this occupation*. This item was reverse coded so that a high score indicated a respondent's desire to chose this occupation. Respondents reported 51.4% ($n = 177$) strongly agree, 26.0% ($n = 177$)

moderately agree, and 5.1% ($n = 177$) slightly agree. The remaining responses included 9.6% ($n = 177$) slightly disagree, 4.5% ($n = 177$) moderately disagree, and 3.4% ($n = 177$) strongly disagree.

The fifth item was *if I had no need for more money, I would still continue in this occupation*. Respondents reported 24.9% ($n = 177$) strongly agree, 23.7% ($n = 177$) moderately agree, and 18.1% ($n = 177$) slightly agree. The remaining responses included 9.0% ($n = 177$) slightly disagree, 6.2% ($n = 177$) moderately disagree, and 17.5% ($n = 177$) strongly disagree.

The sixth item was *sometimes I am dissatisfied with this occupation*. This item was reverse coded so that a high score reflected the respondent's satisfaction with the occupation. Respondents reported 14.7% ($n = 177$) strongly agree, 14.1% ($n = 177$) moderately agree, and 13.0% ($n = 177$) slightly agree. The remaining responses included 33.3% ($n = 177$) slightly disagree, 15.8% ($n = 177$) moderately disagree, and 9.0% ($n = 177$) strongly disagree.

The seventh item was *I like my occupation too well to give it up*. Respondents reported 33.3% ($n = 176$) strongly agree, 35.0% ($n = 176$) moderately agree, and 13.6% ($n = 176$) slightly agree. The remaining responses included 7.9% ($n = 176$) slightly disagree, 5.1% ($n = 176$) moderately disagree, and 4.5% ($n = 176$) strongly disagree.

The eighth item was *my education was not for this occupation*. This item was reverse coded so a high score reflected the respondent's occupational training for this occupation. Respondents reported 70.2% ($n = 177$) strongly agree, 10.7% ($n = 177$) moderately agree, and 5.6% ($n = 177$) slightly agree. The remaining responses included

3.4% ($n = 177$) slightly disagree, 4.0% ($n = 177$) moderately disagree, and 6.2% ($n = 177$) strongly disagree.

The ninth item was *I have the ideal occupation for my life's work*. Respondents reported 39.0% ($n = 176$) strongly agree, 32.8% ($n = 176$) moderately agree, and 15.3% ($n = 176$) slightly agree. The remaining responses included 5.6% ($n = 176$) slightly disagree, 3.4% ($n = 176$) moderately disagree, and 3.4% ($n = 176$) strongly disagree.

The tenth item was *I wish I had chosen a different occupation*. This item was reverse coded so that a high score reflected the respondent's choice of this occupation. Respondents reported 52.5% ($n = 174$) strongly agree, 19.8% ($n = 174$) moderately agree, and 9.6% ($n = 174$) slightly agree. The remaining responses included 10.2% ($n = 174$) slightly disagree, 2.3% ($n = 174$) moderately disagree, and 4.0% ($n = 174$) strongly disagree.

The final item was *I am disappointed that I entered this occupation*. This item was reverse coded so that a high score indicated the respondents' pleasure with entering this occupation. Respondents reported 67.8% ($n = 177$) strongly agree, 17.5% ($n = 177$) moderately agree, and 6.8% ($n = 177$) slightly agree. The remaining responses included 4.0% ($n = 177$) slightly disagree, 1.1% ($n = 177$) moderately disagree, and 2.8% ($n = 177$) strongly disagree. Table 30 summarizes the responses to the occupational commitment statements.

Table 30

Occupational Commitment Frequencies (n = 177)

Statement	1		2		3		4		5		6	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1 ^a	6	3.4	26	14.7	28	15.8	15	8.5	33	18.6	68	38.4
2	5	2.8	9	5.1	11	6.2	28	15.8	47	26.6	77	43.5
3	4	2.3	2	1.1	2	1.1	15	8.5	57	32.2	97	54.8
4	6	3.4	8	4.5	17	9.6	9	5.1	46	26.0	91	51.4
5 ^a	31	17.5	11	6.2	16	9.0	32	18.1	42	23.7	44	24.9
6	16	9.0	28	15.8	59	33.3	23	13.0	25	14.1	26	14.7
7 ^a	8	4.5	9	5.1	14	7.9	24	13.6	62	35.0	59	33.3
8	11	6.2	7	4.0	6	3.4	10	5.6	19	10.7	124	70.1
9 ^a	6	3.4	6	3.4	10	5.6	27	15.3	58	32.8	69	39.0
10 ^b	7	4.0	4	2.3	18	10.2	17	9.6	35	19.8	93	52.5
11	5	2.8	2	1.1	7	4.0	12	6.8	31	17.5	120	67.8

Note. Statement 1: *If I could, I would go into a different occupation.* Statement 2: *I can see myself in this occupation for many years.* Statement 3: *My chosen occupation is a good choice.* Statement 4: *If I could, I would not choose this occupation.* Statement 5: *If I had no need for more money, I would still continue in this occupation.* Statement 6: *Sometimes I am dissatisfied with this occupation.* Statement 7: *I like my occupation too well to give it up.* Statement 8: *My education was not for this occupation.* Statement 9: *I have the ideal occupation for my life's work.* Statement 10: *I wish I had chosen a different occupation.* Statement 11: *I am disappointed that I entered this occupation.*

Note. 1 = Strongly Disagree; 2 = Moderately Disagree; 3 = Slightly Disagree; 4 = Slightly Agree; 5 = Moderately Agree; 6 = Strongly Agree.

^aOne response missing.

^bThree responses missing.

To gauge the overall occupational commitment of the respondents, it was necessary to calculate the average score of the 11 items. The grand mean for occupational commitment was 4.75 ($SD = 0.93$) ($n = 170$). Note that items one, four, six, eight, 10, and 11 were reverse coded. The original mean score for item one was 2.60 ($SD = 1.63$) ($n = 176$). The original mean for item four was 2.00 ($SD = 1.38$) ($n = 177$). The original mean score for item six was 3.49 ($SD = 1.51$) ($n = 177$). The original mean score for item eight was 1.79 ($SD = 1.49$) ($n = 177$). The original mean score for item 10 was 2.00 ($SD = 1.38$) ($n = 174$). The original mean score for item 11 was 1.62 ($SD = 1.15$) ($n = 177$). Table 31 summarizes the mean data for occupational commitment.

Table 31

Occupational Commitment Mean Scores (n = 177)

Statement	<i>M</i>	<i>Md</i>	<i>SD</i>	Range
If I could, I would go into a different occupation. ^{a,c} (original <i>M</i> = 2.60)	4.40	5.00	1.63	1-6
I can see myself in this occupation for many years.	4.89	5.00	1.32	1-6
My chosen occupation is a good choice.	5.32	6.00	1.02	1-6
If I could, I would not choose this occupation. ^c (original <i>M</i> = 2.00)	5.00	6.00	1.38	1-6
If I had no need for more money, I would still continue in this occupation. ^a	3.99	4.00	1.78	1-6
Sometimes I am dissatisfied with this occupation. ^c (original <i>M</i> = 3.49)	3.51	3.00	1.51	1-6
I like my occupation too well to give it up. ^a	4.70	5.00	1.38	1-6
My education was not for this occupation. ^c (original <i>M</i> = 1.79)	5.21	6.00	1.49	1-6
I have the ideal occupation for my life's work. ^a	4.89	5.00	1.27	1-6
I wish I had chosen a different occupation. ^{b,c} (original <i>M</i> = 1.38)	5.00	6.00	1.38	1-6
I am disappointed that I entered this occupation. ^c (original <i>M</i> = 1.15)	5.38	6.00	1.15	1-6
Average score of occupational commitment responses (n = 170)	4.75		0.93	

^a One response missing and was not used in calculating the mean score for commitment responses.

^b Three responses missing and were not used in calculating the mean score for commitment responses.

^c Statement was reverse coded so that a high response indicates a high degree of commitment.

An independent samples t-test revealed that on average, men were more occupationally committed ($M = 4.78, SE = 0.08$) than females ($M = 4.60, SE = 0.19$). This difference was not significant ($t(168) = 0.99, p > .05$; effect size $r = .08$).

Occupational Commitment and Retention. Teachers who remain in the teaching profession as a classroom instructor were considered retained. To describe the relationship between occupational commitment and agricultural educator retention, a Pearson Product Moment Correlation was conducted. Professional life phase, an expression of years of experience, was correlated with the average score as reported for occupational commitment. From the sample ($n = 169$), the data analysis indicated a negative correlation of low magnitude (Davis, 1971) between professional life phase and occupational commitment. Table 32 summarizes the relationship between professional life phase and occupational commitment.

Table 32

Pearson-Product-Moment Correlations (r) Between Professional Life Phase and Occupational Commitment ($n = 168$)

Characteristic	1	2
1. Professional life phase ($n = 176$)	-	-.12
2. Occupational Commitment ($n = 170$)	-	-

* $p < .05$ a priori

Research Question 5

The final research question explores the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural

educator retention. Utilizing the summated data from the four previous research questions, Pearson product moments and analyses of variance were conducted.

Professional life phase. Utilizing professional life phase, a reflection of the years of teaching experience, as the dependent variable, a regression analysis was conducted to determine the degree of influence exerted by the factors of work engagement and work-life balance, as well as the occupational commitment variable. The coefficient of determination yielded very little variance of the dependent variable ($R^2 = .08, p < .05$). Table 33 summarizes the relationship between professional life phases and the independent variables.

Table 33

Regression Analysis Between Work Engagement, Work-Life Balance, and Occupational Commitment on Professional Life Phase (n = 176)

Variable	<i>R</i>	<i>R</i> ²	<i>B</i>	<i>SE</i>	β
Model	.28	.08			
Vigor			0.19	0.23	0.12
Dedication			-0.05	0.22	-0.03
Absorption			0.05	0.19	0.03
Perceptions of creating balance			0.27	0.13	0.19
Work interfering with family			-0.04	0.08	-0.04
Family interfering with work			0.00	0.13	0.00
Occupational commitment			0.01	0.12	0.00

Adjusted $R^2 = 0.04$

For Model: $F_{(7, 154)} = 1.86; p < .05$

Correlation of occupational commitment, work engagement, and work-life

balance. To explore the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention, a Pearson Product Moment Correlation was used. Positive relationships of moderate

magnitude existed between occupational commitment and vigor ($r = .42$), dedication ($r = .41$), and perceptions of work-life balance ($r = .38$). A positive relationship of low magnitude exists between occupational commitment and absorption ($r = .27$). A negative relationship of low magnitude exists between occupational commitment and work interfering with family ($r = -.24$) and family interfering with work ($r = .31$). Table 34 summarizes the correlations between occupational commitment and the factors of work engagement and work-life balance.

Table 34

Pearson Product Moment Correlations between Occupational Commitment and the Factors of Work Engagement and Work-life Balance (n = 169)

Characteristic	1	2	3	4	5	6	7
1. Occupational commitment	-	.43	.41	.29	.38	-.24	-.31
2. Vigor		-	.81	.72	.40	-.23	-.17
3. Dedication			-	.71	.37	-.18	-.17
4. Absorption				-	.20	-.02	.04
5. Perceptions of creating work-life balance					-	-.41	-.27
6. Work interfering with family						-	.31
7. Family interfering with work							-

* $p < .05$ a priori

Regression of occupational commitment and the factors of work engagement and work-life balance. Based on the magnitude of the correlations between occupational commitment and the factors of engagement and work-life balance, a regression analysis was performed to determine the amount of variance in occupational commitment that could be attributed to the factors of work engagement and work-life balance.

The coefficient of determination yielded 25% variance of occupational commitment as explained by the influence of vigor, dedication, absorption, perceptions of work-life balance, work interfering with family, and family interfering with work ($R^2 = .25, p < .05$). Table 35 summarizes the regression of occupational commitment and the factors of work engagement and work-life balance.

Table 35

Regression of Work Engagement and Work-Life Balance on Occupational Commitment (n = 170)

Variable	<i>R</i>	R^2	<i>B</i>	<i>SE</i>	β
Model	.50	.25			
Vigor			.13	.15	.11
Dedication			.16	.15	.14
Absorption			.08	.12	.07
Perceptions of Balance			.20	.08	.16
Work interfering with family			-.03	.06	-.04
Family interfering with work			-.22	.08	-.20
Adjusted $R^2 = .22$					
For Model: $F_{(6, 155)} = 8.74; p < .05$					

Chapter V

Conclusions, Implications, and Recommendations

Chapter four described the statistical analysis of data and the results of the study. The purpose of this chapter is to give meaning to the findings, expand on them in relation to the body of literature that already exists, and provide direction for future endeavors.

Purpose of the Study

The purpose of this study was to identify and describe agriculture teachers on factors related to career retention and to explore the relationships between agriculture teachers' work engagement, work-life balance, occupational commitment, and personal and career factors as they relate to the decision to remain in the teaching profession. Knowledge of these relationships may allow for a systematic approach to developing strategies to retain agricultural educators. The accessible population for this study consisted of experienced agricultural educators from the southern region of the United States who remained in the profession beyond four years.

Research Questions

The following research questions guided this study:

1. What are the demographic and career characteristics of experienced agricultural educators?
2. How does work engagement relate to agricultural educator retention?
3. How does work-life balance relate to agricultural educator retention?
4. How does occupational commitment relate to agricultural educator retention?

5. What are the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention?

Limitations of the Study

For this study, a questionnaire was used to obtain data regarding work engagement, work-life balance, and occupational commitment of experienced agricultural educators. The approach created a limitation in that responses were self-reported, possibly reducing validity of the study. While there are a number of extraneous variables that may influence individual decisions, this study was limited to exploring the relationships of work engagement, work-life balance, and occupational commitment. This study sought responses from agricultural educators who had completed a minimum of four years of teaching experience, located in the southern region of the United States, including Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee. The regional aspect of the study's sample limited generalizability of the statistical analysis to the geographical region studied.

Research Design

This study utilized descriptive-correlational research procedures to accomplish the purpose (Fraenkel & Wallen, 2006). According to Fraenkel and Wallen (2006), correlational research explores the relationships that exist between one or more variables without any attempt to influence them. These types of study do not attempt to establish cause and effect, but rather endeavor to identify magnitudes of relationships that make it possible to predict the score of one variable based on the score of another (Fraenkel & Wallen, 2006). The variables of interest in this study were the degrees of work

engagement, work-life balance, and occupational commitment experienced by agricultural educators who had a minimum of four years teaching experience. The correlational design measured the degree of the existing relationships between the identified factors that influenced the respondents' decision to continue to teach, as expressed by professional life phase.

A major concern of all research is the potential influence of extraneous variables that could provide an alternative explanation for the relationships found in data. Fraenkel and Wallen (2006) identified those threats to internal validity as subject characteristics, mortality, location, instrumentation, testing, history, maturation, attitude of subjects, regression, and implementation. While implementation, history, maturation, attitude of subjects, and regression are not applicable to a correlational study because no intervention occurs; subject characteristics, location, instrumentation, testing, and mortality are viewed as potential threats to interval validity in this study (Fraenkel & Wallen, 2006).

Subject characteristics may be statistically controlled by using partial correlations of extraneous variables. The extraneous variable is measured and thus held statistically constant (Fraenkel & Wallen, 2006). This study sought demographic information, including personal, family, and program data. The information was measured in an effort to reduce error due to subject characteristics. To control location threat, the instrument was mailed to the respondents' place of employment, rather than home in an effort to hold that variable constant. In addition, the study was regional in nature to reduce residential influences.

The instrument was only administered once and completed independently by the respondents. As a result, the threat of instrument decay, multiple testing experience, and data collector influence were void. In an effort to control mortality, Dillman's (2007) and Shinn et al.'s (2007) strategies were implemented to achieve a high response rate. To control for non-response error, steps were taken to compare early to late respondents, using "days to respond" as a continuous variable, and comparing respondents to non-respondents (Lindner et al., 2001).

Population and Sample

The target population for this study was defined as experienced agricultural educators with a minimum of four years of teaching experience, who were currently employed in a secondary agricultural education classroom for the 2009-2010 school year. The study sought responses from a stratified random sample of those teachers working in the southern region of the United States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee. Lists of current, agricultural educators were secured from websites associated with state departments of agricultural education. Teachers had completed four or few years of teaching experience were removed from the lists. Compilation of the remaining educators resulted in an accessible population of 1705 ($N = 1705$) agricultural educators in the southern region. Following Krejcie and Morgan's (1970) formula for determining sample size, the study sought responses from 314 ($n = 314$) participants to ensure a 95% confidence level and .05 alpha level. A stratified sample was gleaned from the state lists reflective of the regional representation, as well as gender representation. The study achieved a 56% response rate with stratified representation closely mirroring the desired stratification.

Instrumentation

Instrumentation for this study consisted of pieces from four different instruments used independently by researchers to measure the independent variables of interest.

Work engagement. The study incorporated the Utrecht Work Engagement Scale, or UWES, to measure work engagement and job satisfaction (Schaufeli & Bakker, 2003). The instrument was chosen because of its association with job satisfaction rather than dissatisfaction, and its use with over 22,000 subjects. Having established a high degree of validity and reliability across occupations and cultures, it was a good fit for this study. The instrument measured participant vigor, dedication, and absorption, stemming from positive psychology; antipode variables to exhaustion, cynicism, and lack of professional efficacy (Schaufeli et al., 2006).

Work-Life Balance. Chaney (2007) explored work-family balance as a factor influencing the attrition of early career teachers in Texas. Defining work-life balance as a person's control over conditions in their professional work and personal life, Chaney (2007) explained that a balance is struck when one can manage both professional work and personal life without sacrificing either. She created five questions that address participant perceptions of balance achievement and the belief that achieving balance influences the decision to remain or leave the profession.

Because Chaney's five questions measured only the respondent's perception of balance achievement, eight items from Gutek et al.'s (1991) work-family conflict instrument were included. Gutek et al. (1991) stated that work-family role conflict occurs when work interferes with family or family interferes with work. Four items

measured work-family conflict, while the remaining four items measured family-work conflict.

Occupational Commitment. A portion of Blau et al.'s (1993) Work Commitment Index was used to measure agricultural educator's commitment to teaching. The omitted items measure job saliency, work ethic, and organizational commitment; all variables unrelated to the research questions of this study. Blau et al. (1993) defined occupational commitment as one's attitude, including affect, belief, and behavioral intention, toward their chosen occupation. Items one, four, six, eight, 10, and 11 were reverse coded so that a high score indicated a high degree of commitment (see Appendix B).

Data Collection

The instrument was administered utilizing a mixed-mode method of delivery. Following Dillman's (2007) recommendations, as well as those from Shinn et al. (2007), to maximize response rate, potential study participants were contacted electronically with an prenotice email (Appendix C) identifying the purpose of the study, explaining the voluntary nature of responding, and the degree of confidentiality to anticipate from the researcher. Data collection was launched by sending sample participants the electronic cover letter (Appendix D) outlining consent to participate and provided the link to the electronic instrument (Appendix B). A week later, a follow up email (Appendix E) was sent. The fourth contact was a paper instrument with another cover letter (Appendix F) and a self-addressed, stamped return envelop. The final contact was an electronic email requesting the potential participant complete either the paper or electronic instrument (Appendix G).

The respondents were coded and entered into Statistical Package for Social Sciences (SPSS) version 15 for Microsoft Windows. The coded information allowed the researcher to determine non-response for continuing contact during data collection. Following the conclusion of data gathering, the codes were discarded.

The researcher obtained a 56% response rate from the experienced agricultural educators in the southern region of the United States ($n = 314$). After obtaining less than 100% response, the researcher contacted 20 nonrespondents and conducted the survey by telephone as recommended by Lindner et al. (2001).

Data Analysis

The data collected in this study were entered into and analyzed using the Statistical Package for Social Sciences (SPSS) version 15.0 computer program for Microsoft Windows. The alpha level was established a priori at 0.05 ($\alpha = 0.05$).

To answer research question one, participant characteristics were analyzed for gender, state of residence, age, type of professional training, highest degree held, number of children in the home, ages of those children, annual contract length, number of teachers in their program, and the number of students in their program. Frequencies, percentages, and mode were used to report the categorical data. Mean and standard deviation were used to report the age, years of teaching experience, and the number of students in the respondents' programs.

To answer research question two, frequencies, percentages, mean scores, and standard deviations were used to analyze the three factors, vigor ($n = 176$), dedication ($n = 175$), and absorption ($n = 176$) of work engagement. A grand mean and standard deviation ($n = 173$) reported participants' overall response to the 17-item Utrecht Work

Engagement Scale (Schaufeli & Bakker, 2003). An independent sample t-test was run to compare the responses of males and females. A Pearson Product Moment Correlation was used to determine the influence of work engagement on professional life phase reported by the sample.

To answer research question three, frequencies, percentages, mean scores, and standard deviations were used to analyze the three factors, perceptions of creating balance ($n = 174$), work interfering with family ($n = 175$), and family interfering with work ($n = 177$), of work-life balance. A grand mean and standard deviation ($n = 173$) reported participants' overall response to the 13-item portion (Chaney 2007; Gutek et al., 1991) measuring work-life balance. An independent sample t-test was run to compare the responses of males and females. A Pearson Product Moment Correlation was used to determine the influence of work-life balance on professional life phase reported by the sample.

To answer research question four, items one, four, six, eight, 10, and 11 were reverse coded (Appendix B) so that a high score indicated a high degree of commitment. Frequencies, percentages, mean scores, and standard deviations were used to analyze occupational commitment ($n = 170$). A grand mean and standard deviation reported participants' overall response to Blau et al.'s (1993) 11-item occupational commitment portion of their Work Commitment Index. An independent sample t-test was run to compare the responses of males and females. A Pearson Product Moment Correlation was used to determine the influence of occupational commitment on professional life phase reported by the sample.

To answer research question five, Pearson product moments and regression analyses were conducted. Utilizing professional life phase, a reflection of the years of teaching experience, as the dependent variable, a regression analysis was conducted to determine the degree of influence exerted by the factors of work engagement and work-life balance, as well as the occupational commitment variable. To explore the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention, a Pearson Product Moment Correlation was used. Based on the magnitude of the correlations between occupational commitment and the factors of engagement and work-life balance, a regression analysis was performed to determine the amount of variance in occupational commitment that could be attributed to the factors of work engagement and work-life balance.

Summary of Findings

Research question one. Study participants ($n = 177$) were asked to provide demographic data in three categories, personal, family, and agricultural education program characteristics. The majority of respondents were male (81.4%, $n = 144$), less than one-fifth were female (18.6%, $n = 33$). The mean age for the teachers was 45.78 years ($SD = 9.97$) with a range of 27 to 67 years. From the sample ($n = 176$), 84.2% ($n = 149$) received traditional education training at a four-year institution. The remaining 15.3% ($n = 27$) reported participating in alternative certification programs.

The level of education ranged from completion of a Doctoral program (2.3%, $n = 4$) to a Bachelors degree (24.3%, $n = 43$). A little over one-fifth of respondents (11.9%, $n = 21$) had education hours beyond the bachelors, while 31.1% ($n = 55$) had achieved a

Masters degree. Nearly a quarter of the teachers (23.2%, $n = 41$) had completed hours beyond the Masters degree with 6.8% ($n = 12$) having achieved the level of Specialist.

Over half of the respondents (61.6%, $n = 177$) had children living in their home. Of those children, the ages ranged from three weeks to thirty-four years. The children were of preschool age (23.0%, $n = 35$), elementary school age (28.3%, $n = 43$), teenagers (30.9%, $n = 47$) and adult age, defined as 19 years and over (17.8%, $n = 27$). Thirty eight teachers ($n = 38$) had more than one child with ages spanning across two or more age categories. One teacher had as many as two adult children, two teenagers, and two grandchildren living in their home.

Nearly three-fourths of the respondents (73.4%, $n = 176$) work under a 12 month contract. The remaining teachers varied between 11.5 months (1.7%, $n = 176$), 11 months (6.2%, $n = 176$), 10.5 months (6.2%, $n = 176$), 10 months (9.6%, $n = 176$), and nine months (2.3%, $n = 176$).

Single teacher departments (49.2%, $n = 87$) were the most common among the study participants. This was followed by two teacher departments (33.3%, $n = 59$) and three teacher departments (10.7%, $n = 19$). Four teachers (2.3%, $n = 4$) worked in a four teacher department and one (0.6%, $n = 1$) worked in a large program of eight teachers. Two teachers worked in a program that had a half time teacher increasing their numbers to one and a half (0.6%, $n = 1$) and three and a half (0.6%, $n = 1$).

The final demographic information requested concerned enrollment in the teachers' program. Student enrollment ranged from 11 students to 450. The average number was 94.7 ($SD = 50.39$).

Research question two. The Utrecht Work Engagement Scale (Schaufeli & Bakker, 2003) was used to gauge the level of work engagement of study participants. The scale consisted of a 17-item instrument with a seven point Likert-type scale ranging from 1 = never to 7 = always/every day. The instrument measured vigor ($M = 5.71$, $SD = 0.84$, $n = 176$), dedication ($M = 6.11$, $SD = 0.79$, $n = 175$), and absorption ($M = 5.83$, $SD = 0.84$, $n = 176$). The grand mean ($n = 173$) for work engagement was 5.87 ($SD = 0.75$). The independent samples t-test found no difference between responses with regards to gender.

A Pearson Product Moment Correlation between professional life phase and the factors of vigor ($r = .17$), dedication ($r = .19$), and absorption ($r = .14$) showed a positive correlation of low magnitude (Davis, 1971). There was a positive, low magnitude correlation with overall work engagement ($r = .19$), as well.

Research question three. Two instruments were combined to measure participants' degree of work-life balance. The first five questions (Chaney, 2007) gauged perceptions of work-life balance, while the remaining eight (Gutak et al., 1991) examined the degree of work interfering with family and family interfering with work. The summated scores from a 6-point Likert-type scale ranged from 1 = strongly disagree to 6 = strongly agree.

The instrument measured perceptions of creating balance ($M = 4.69$, $SD = 0.93$, $n = 174$), work interfering with family ($M = 3.17$, $SD = 1.13$, $n = 175$), and absorption ($M = 1.94$, $SD = 1.75$, $n = 177$). The grand mean ($n = 173$) for work-life balance was 3.27 ($SD = 0.45$). The independent samples t-test found no difference between responses with regards to gender.

A Pearson Product Moment Correlation between professional life phase and the factors of perceptions of creating balance ($r = .25$), dedication ($r = -.12$), and absorption ($r = -.06$). There was negligible magnitude correlation with overall work-life balance ($r = .02$), as well.

Research question four. Occupational commitment was measured using the 11-item portion of Blau et al.'s Work Commitment Index (1993) that addressed this factor. The summated items were reported in means and standard deviations from 1 = strongly disagree to 6 = strongly agree Likert-type scale. The mean score ($n = 171$) for occupational commitment was 4.75 ($SD = 0.90$). The independent samples t-test found no difference between responses with regards to gender.

A Pearson Product Moment Correlation between professional life phases and occupational commitment ($r = -.12$) showed a negative correlation of low magnitude (Davis, 1971).

Research question five. The final research question explores relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention. Utilizing the summated data from the four previous research questions, Pearson product moments, regression analyses, and analysis of covariance were conducted.

Professional life phase. Utilizing professional life phase, a reflection of the years of teaching experience, as the dependent variable, a regression analysis was conducted to determine the degree of influence exerted by the factors of work engagement and work-life balance, as well as the occupational commitment variable. The coefficient of determination yielded very little variance of the dependent variable ($R^2 = .08, p < .05$).

Correlation of work engagement, work-life balance, and occupational

commitment. To explore the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention, a Pearson Product Moment Correlation was used. Positive relationships of moderate magnitude existed between occupational commitment and vigor ($r = .42$), dedication ($r = .41$), and perceptions of work-life balance ($r = .38$). A positive relationship of low magnitude exists between occupational commitment and absorption ($r = .27$). A negative relationship of low magnitude exists between occupational commitment and work interfering with family ($r = -.24$) and family interfering with work ($r = -.31$).

Regression of occupational commitment and the factors of work engagement

and work-life balance. Based on the magnitude of the correlations between occupational commitment and the factors of engagement and work-life balance, a regression analysis was performed to determine the amount of variance in occupational commitment that could be attributed to the factors of work engagement and work-life balance. The coefficient of determination yielded 25% variance of occupational commitment as explained by the influence of vigor, dedication, absorption, perceptions of work-life balance, work interfering with family, and family interfering with work ($R^2 = .25$, $p < .05$).

Conclusions: Research question one

Personal characteristics. Approximately four-fifths of the teachers in the study were male (81.4%). This was consistent with the accessible population's gender breakdown of 80% male and 20% female. This reveals a male dominated profession,

which is contrary to the education profession as a whole. The US Department of Labor (2008) reports 56% of secondary teachers are female. This study's gender representation is slightly lower than Lee's (2009) report of 28.3% female agricultural education teachers nationwide.

The experienced agricultural educators in this study ranged in age of 27 to 67 years, with an average of 19.94 years of teaching experience. Lee (2009) reported the 12.97 years as the average for agricultural educators, with 17.6% having taught 25 or more years. This study found 36.9% of the participants had taught 25 or more years. Utilizing Day's (2008) professional life phases it is easier to see the patterns in the careers of the experienced southern region agricultural educators. Beginning with the less experienced teachers, 13% are still in the induction phase (5-7 years), 24.9% are in the early phase (8-15 years), 22.0% are in the mid phase (16-23 years), and 24.3% are in the late phase (24-30 years). The final group (15.3%) continues in the profession during their sunset years of experience (30+ years).

Family characteristics. Over half (61.8%) of the teachers had children, with 43% reporting more than one child in the home. Ages of the children ranged between three weeks and 33 year old adult-children. School age children (59.2%) were more frequent than preschool (23.0%) and adults (17.8%). One teacher had two teens, two adult children, and two preschool grandchildren living in the home.

Program characteristics. Nearly three-fourths of the teachers (73.4%) secured a 12 month contract. The remaining teachers worked 11.5 months (1.7%), 11 months (6.2%), 10.5 months (6.2%), 10 months (9.6%), and nine months (2.3%).

Teachers most frequently worked in a single teacher department (49.2%). The remaining respondents work in multiple teacher departments (48.7%). This is closely aligned with Lee's (2009) reported single teacher programs (49.6%) and multiple teacher programs (50.4%).

The experienced southern region agricultural educators had program enrollments ranging from 11 to 450. The average number of students per teacher was 94.7 students, slightly under Lee's (2009) average of 114.3 per teacher.

Implications: Research question one

Over 15% of the respondents are past the point of retirement. While a testament to their resilience in a number of ways, it could be traumatic if they were a true representation of the target population ($N = 1705$). If so, there were over 250 teachers that are at the point of leaving the profession at any given time in the represented states. Looking at the late phase respondents, there were another 24.3% edging closer to that perennial marker. Those percentages have real implications for the future need for agricultural educators in the southern region of the United States.

Beginning teacher studies report a historical increase in the number of females in the agricultural education profession (Burris et al., 2008). As the gender demographics change, it will become imperative to consider the profession from both gender perspectives. As a whole the literature relating to the experiences of educators tends to be from a feminine perspective due to the fact that the majority of all educators are female (US Bureau of Labor Statistics, 2008). As the number of female agricultural educators grows, so will the applicability of this body of literature to this branch of social science. Cinamon and Rich (2005) expressed concern that reporting of work-life balance

fell into traditional gender roles and that males reported more family interfering with work, while women reported more work interfering with family. Pajak and Blase (1989) cautioned that female teachers experience more conflict between the role of teacher and that of a parent. This study found there to be no difference between male and female responses with regards to work engagement, work-life balance, or occupational commitment at this point in time.

With a mean age of 45.78 years, it is not surprising that over half of the teachers have children in their home or that they are in the mid to late phase of their professional life. As such, these educators are working to manage changing personal roles as well as professional roles. They are at the juncture of making permanent career and family decisions. According to Day (2008) this is where they either reengage or disengage from their profession. As such, there is implication that their ability to maintain work engagement, create balance between their work and family life, and stay committed to their occupation will influence their choice to remain in the profession.

These agricultural educators sought higher degrees of education. Less than one quarter of the teachers (24.3%) remain at the Bachelors degree level. The remaining teachers continue to develop themselves professionally with 11.9% Bachelors +, 31.1% Masters, 23.2% Masters +, 6.8% Specialists, and 2.3% Doctors. Thobega and Miller (2003) cautioned that while increased education led to increased job satisfaction, it was inversely related to the intent to remain in the classroom.

A snapshot of the average teacher in this study reveals someone who is as likely to work in a single teacher department as a multi-teacher department, has an extended 12 month contract, and averages 94.7 students. The extended contract implies the teacher is

being compensated for the extended days of work required beyond the daily attendance of students. For those that work alone, there is no one to share the burden of student enrollments or extra activities beyond the hours of instruction. Findings from this study identify a potential degree of conflict when the teacher's work interferes with family.

Conclusions: Research question two

Work engagement was broken into the factors of vigor, dedication, and absorption (Schaufeli & Bakker, 2003). The 7-point Likert-type scale ranged from 1) Never, 2) Almost Never/A few times a year or less, 3) Rarely/Once a month or less, 4) Sometimes/A few times a month, 5) Often/Once a week, 6) Very often/A few times a week, and 7) Always/Every day.

Vigor. The overall average for the study participants in the area of vigor was 5.71 (*SD* 0.75). As a result, the teachers reported feeling vigorous at work between once a week and a few times a week according to the UWES.

Dedication. The overall average for the study participants in the area of dedication was 6.11 (*SD* 0.79). As a result, the teachers reported feeling dedicated to their work between a few times a week and every day according to the UWES.

Absorption. The overall average for the study participants in the area of absorption was 5.87 (*SD* 0.84). As a result, the teachers reported feeling absorbed in their work between once a week and a few times a week according to the UWES.

Overall work engagement. The grand mean for engagement was 5.87 (*SD* 0.75). This indicated that teachers felt engaged with their work once a week to a few times a week. Caution should be taken when generalizing the scores contributing to the

measurement of work engagement, due to the fact that there was a difference in responses between responders and nonresponders, creating a threat to external validity.

Professional life phase was correlated with the three factors, vigor, dedication, and absorption, and the grand mean for work engagement. From the sample ($n = 173$), the data analysis indicated positive correlations of low magnitude between professional life phases and vigor ($r = .17$), dedication ($r = .19$) and absorption ($r = .14$).

Implications: Research question two

The data suggests there is a positive relationship between work engagement and professional life phase; however, the magnitude of the relationship was low and teachers who had exited the profession were not compared in this study. Schaufeli et al. (2006) reported that gender has a weak positive relationship with work engagement. This study found no significant relation to gender.

Conclusions: Research question three

This study combined two instruments to measure the degree of work-life balance for agricultural educators. The first five questions were taken from Chaney (2007) and addressed the teacher's perception of their ability to create balance between their work and family life, as well as their perception of its importance to the agricultural education profession. The remaining eight questions were taken from Gutek et al. (1991). Their instrument compared the degree of conflict between work and family life. Four questions explored work conflicting with family and four explored family conflicting with work.

Perceptions of creating balance. The mean score for perceptions of creating balance was 4.69 ($SD = 0.93$). As a result, the teachers reported that they slightly to

moderately agreed with the importance of creating balance for themselves and for the agricultural education profession.

Work interfering with family. The mean score for work interfering with family was 3.68 ($SD = 1.31$). The teachers do experience a slight to moderate conflict with work interfering with family.

Family interfering with work. The mean score for family interfering with work was 1.93 ($SD = 0.86$). The teachers do not experience a conflict of family interfering with work.

These contributed to a grand mean for work-life balance of 3.44 ($SD = 0.54$). Overall, the teachers believe that creating work-life balance is important and believe they are able to do so. They do experience a degree of work conflicting with their family but do not feel the bidirectional conflict of family on work.

Professional life phase was correlated with the three factors, perception of creating work-life balance, work interfering with family, and family interfering with work, and the grand mean as reported for work-life balance. From the sample ($n = 173$), professional life phase yielded a negative, low to negligible magnitude correlations with work interfering with family ($r = -.12$) and family interfering with work ($r = -.06$). The data does reveal a positive correlation of moderate magnitude between the perception of creating balance and professional life phase ($r = .25$).

Implications: Research question three

Overall, the teachers believe that creating work-life balance is important and believe they are able to do so. They do experience a degree of work conflicting with their family but did not report the bi-directional conflict of family on work. Perceptions of

creating balance were negatively correlated with the conflicts. So as the teachers' perceptions of being able to create balance and finding it important to the profession increased, their degree of conflict between work and family declined. In addition, teachers reported more conflict between work and family than the reverse. This mirrors Gutek et al.'s (1991) findings. Intuitively, the items measuring work interfering with family and family interfering with work seem to be opposites. This study did not support that assumption. It is possible that perception of creating balance plays a larger role than anticipated or revealed in this study.

This study did find that the teacher's perceptions of creating balance and the phases of professional life was the only relationship of any magnitude ($r = .25$) with regards to retention. This is not unexpected as Day (2008) stated that teacher's personal lives are linked to their professional roles. While Chaney (2007) found that as work-life balance increased attrition decreased, this study did not make the connection that as work-life balance increased, retention increased. Only a negligible, positive relationship was found to exist between the two.

Conclusions: Research question four

Occupational commitment was measured using an 11-item portion of Blau et al.'s (1993) Work Commitment Index. The six-point Likert-type scale ranged from 1) strongly disagree, 2) moderately disagree, 3) slightly disagree, 4) slightly agree, 5) moderately agree, and, 6) strongly agree. The overall average for the study participants in the area of occupational commitment 4.75 ($SD = 0.92$). This indicated that teachers felt moderately to strongly committed to their occupation.

Professional life phase and occupational commitment were correlated. From the sample ($n = 176$), the data analysis indicated a positive correlation of low magnitude (Davis, 1971) between occupational commitment and professional life phases ($r = .12$).

Implications: Research question four

According to the results of this study, the teachers were committed to their occupation. Sammons et al. (2007) defined commitment as the degree of psychological attachment teachers have to their profession. These teachers saw themselves continuing in the profession they feel was a good choice for them and fits their life's work. Sammons et al. (2007) cautioned that commitment declines in later years and that new teachers are no less committed than teachers in middle to later phases of their professional career. While this study found a positive relationship between professional life phase, the magnitude ($r = .12$) was such that it would support Sammons et al.'s (2007) recommendation for caution.

Conclusions: Research question five

The final research question explores the relationships between work engagement and work-life balance in relation to occupational commitment influencing agricultural educator retention. Utilizing the summated data from the four previous research questions, Pearson product-moment correlations and regression analyses were conducted.

Professional life phase. Utilizing professional life phase, a reflection of the years of teaching experience, as the dependent variable, a regression analysis was conducted to determine the degree of influence exerted by the factors of work engagement and work-life balance, as well as the occupational commitment variable. The coefficient of

determination, while statistically significant, yielded very little variance of the dependent variables ($R^2 = .08, p < .05$).

Correlation of occupational commitment, work engagement, and work-life balance. To explore the relationships between work engagement and work-life balance in relation to occupational commitment, a Pearson Product Moment Correlation was used. Positive relationships of moderate magnitude existed between occupational commitment and vigor ($r = .42$), dedication ($r = .41$), and perceptions of work-life balance ($r = .38$). A positive relationship of low magnitude exists between occupational commitment and absorption ($r = .27$). A negative relationship of low magnitude exists between occupational commitment and work interfering with family ($r = -.24$) and family interfering with work ($r = -.31$).

Regression of occupational commitment and the factors of work engagement and work-life balance. Based on the magnitude of the correlations between occupational commitment and the factors of engagement and work-life balance, a regression analysis was performed to determine the amount of variance in occupational commitment that could be attributed to the factors of work engagement and work-life balance. The coefficient of determination yielded 25% variance of occupational commitment as explained by the influence of vigor, dedication, absorption, perceptions of work-life balance, work interfering with family, and family interfering with work ($R^2 = .25, p < .05$).

Implications: Research question five

The final purpose of this study was to explore the relationships between work engagement and work-life balance in relation to occupational commitment influencing

agricultural educator retention. Using professional life phase as a dependent variable, the data reveals only 4% of variance can be attributed to work engagement, work-life balance, and occupational commitment. This was to be expected in light of the plethora of variables that influence a teacher's decision to remain in the profession (Brill & McCartney, 2008).

The correlation coefficients revealed low to moderate, positive relationships between the factors of work engagement, work-life balance, and occupational commitment. As a result, a regression analysis was used to determine the degree of effect that could be attributed to the factors of work engagement and work-life balance. Revealing 25% of the variance in occupational commitment can be attributed to vigor, dedication, absorption, perceptions of work-life balance, work interfering with family, and family interfering with work is an important result of this study. According to Day (2008), commitment is a predictor of attrition. Inversely, it will be a predictor of retention (Certo & Fox, 2002). Knowing the factors of work engagement and work-life balance impact occupational commitment could assist the profession in retaining teachers.

Recommendations

Recommendations for research. The instrument used in this study was created using pieces derived from previous studies. Previous researchers independently determined the validity and reliability of those instruments. Due to the lack of variability in this study's data, future researchers should analyze the composite instrument, using factor analysis, to determine the overall validity and reliability for use as an independent research instrument.

Teachers were asked to report the number of students in the agricultural education program. From the responses, it was apparent that the question should be clarified so that teachers report the number of students they instruct and number of FFA members they advise. Once that information is consistent, future efforts should attempt to measure the influence the teacher's perceived workload influences work engagement, work-life balance, and occupational commitment.

Findings from this study and the body of literature focus primarily on either the stayers or leavers. Future efforts should look to compare the groups in an effort to discern the similarities and/or differences in their degree of long term commitment. Grady's (1990) efforts need to be extended and replicated to determine if there truly is no difference in commitment between stayers and leavers, and explore their degree of work engagement and work-life balance. In an effort to do so, the Blau et al. (1993) instrument should be altered. It was the experience of the researcher when administering the instrument via the phone that respondents had a difficult time interpreting several questions to give the appropriate answers. The questions resulting in distress were the negatively phrased items, causing the respondents to debate whether to provide a positive or negative response. Future exploration of commitment should also include instruments specific to educational settings and teachers, measuring their commitment to the profession, to students, to their subject matter, to creating social influences, as suggested by Tyree (1996). In addition, researchers should look for factors that erode commitment (Day & Gu, 2008).

Furthermore, a path analysis should be conducted to extend the regression model of the influence of vigor, dedication, absorption, perceptions of work-life balance, work

interfering with family, and family interfering with work on occupational commitment. The literature does not suggest a path; however, Kelley and Michela's (1980) summation that the attribution of a person's response to certain stimuli on a particular occasion depends on the perception of the degree of consensus and consistency of responses of the person to other stimuli and at other points in time suggests there is a path of covariance. The findings of this study lead to a preliminary hypothesis that one's degree of job engagement is influenced by work-life balance, which in turn affects the degree of occupational commitment. Figure 3 proposes a potential path analysis to be explored based on the results of this study.



Figure 3. Proposed path analysis.

The VITAE project (Day, 2008) was a longitudinal, qualitative study that needs to be empirically explored among the agricultural education profession. The categories he created, and this study's researcher labeled, need to be quantitatively validated. In addition, this study did not include the early induction phase educators in the sample, limiting the ability to compare the degree of commitment between entry level educators and their experienced counterparts.

Gender issues need to continue to be explored. As the agricultural education profession continues to experience a growth in the number of females, it will be imperative to evaluate the changes in the profession that occur as a result. Foster (2001)

recommended that spousal support should be explored, adding a dimension to the study of work-life balance for agricultural educators in the future. Ingersoll (2002) said that we lose a lot of female teachers to personal/family commitments. If his findings hold true for agricultural education it could have significant impact as the number of female agricultural educators increase, finding them to remain only a short period of time before leaving to fulfill family commitments.

Future researchers should look to include efficacy in their study of commitment of agricultural educators. The literature infers relationships (Grady, 1990; Pajares, 1996) but fails to study the two variables simultaneously.

Recommendations for practice. Based on the findings of this study the following recommendations for practice are made:

1. Local school administrators seek ways to create a culture of commitment in their buildings. Nais (1989) found that teachers sought out schools and fellow educators who have the same degree of commitment they feel reflected their own.
2. School administrators and state agricultural education staff increase awareness of the reported conflict that exists when work interferes with the agricultural educators' family life. When teachers assume too much responsibility for activities beyond classroom instruction, there is the potential for negative impact on their commitment to remain. Formal mentoring programs for early career educators should include exercises that coach individuals on creating balance between their work responsibilities and family responsibilities.
3. Agricultural education professional organizations take ownership of professional development events, create mentoring programs that match agricultural educators

late in their career with those in the early and middle stages, in an effort to share strategies and coping skills for creating balance and reengaging participants in their profession. By influencing these two factors, the professional organization will lead the effort to sustain commitment for the profession.

4. While efforts to increase the number of students majoring in agricultural education have appear to be working in a number of states, those efforts will not sustain educators once they are in the classroom. Post-secondary agricultural education programs examine their role in providing researched-based professional development events that reengage teachers in the profession and influence implementation of work-life balance strategies.
5. This study found 24.3% of teacher with 24-30 years experience and 15.3% teaching beyond 30 years. Administrators, state agricultural education staff, teacher educators, and the teacher professional organizations in their respective states to prepare for the eventual turnover of these instructors within the next ten years due to retirement. With the current economic stress on schools to cut budget requirements, an agricultural education program is a high cost that can be eliminated with the retirement of a teacher. In some locations, it will take extreme community support to keep that from occurring. It will be imperative that there are highly committed agricultural educators ready to assume the empty positions.

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Appendices

Appendix A: IRB approval letter



October 28, 2009

Dr. Scott Burris
Ag Ed & Communications
Mail Stop: 2131

Regarding: 502046 The Relationship of Job Satisfaction and Engagement, Self-Efficacy, Commitment, and Work-Life Balance on the Decisions of Agricultural Educators to Remain in the Teaching Profession

Dr. Scott Burris:

The Texas Tech University Protection of Human Subjects Committee approved your claim for an exemption for the proposal referenced above on October 26, 2009.

Exempt research is not subject to continuing review. However, any modifications that (a) change the research in a substantial way, (b) might change the basis for exemption, or (c) might introduce any additional risk to subjects must be reported to the IRB before they are implemented.

To report such changes, you must send a new claim for exemption or a proposal for expedited or full board review to the IRB. Extension of exempt status for exempt projects that have not changed is automatic.

The IRB will send annual reminders that ask you to update the status of your research project. Once you have completed your research, you must inform the Coordinator of the Committee either by responding to the annual reminder or by notifying the Coordinator by memo or e-mail (donna.peters@ttu.edu) so that the file for your project can be closed.

Sincerely,

A handwritten signature in black ink that reads "Rosemary Cogan".

Rosemary Cogan, Ph.D., ABPP
Protection of Human Subjects Committee

203 Holden Hall | Box 41035 | Lubbock, Texas 79409-1035 | T 806.742.3884 | F 806.742.3892

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Appendix B: Instrument

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, place the '0' (zero) in the space in front of the statement. If you have had this feeling, indicate how often you feel it by placing the appropriate number (from 1 to 6) in the blank that best describes how frequently you feel that way.

	Almost Never	Rarely	Sometimes	Often	Very Often	Always
0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

1. _____ At my work, I feel bursting with energy
2. _____ I find the work that I do full of meaning and purpose
3. _____ Time flies when I'm working
4. _____ At my job, I feel strong and vigorous
5. _____ I am enthusiastic about my job
6. _____ When I am working, I forget everything else around me
7. _____ My job inspires me
8. _____ When I get up in the morning, I feel like going to work
9. _____ I feel happy when I am working intensely
10. _____ I am proud on the work that I do
11. _____ I am immersed in my work
12. _____ I can continue working for very long periods at a time
13. _____ To me, my job is challenging
14. _____ I get carried away when I'm working
15. _____ At my job, I am very resilient, mentally
16. _____ It is difficult to detach myself from my job
17. _____ At my work I always persevere, even when things do not go well

The following 11 statements concern your view of your job. Please read each statement carefully and decide if you agree or disagree. Please place the appropriate number (from 1 to 6) in the blank that best describes how much you agree or disagree.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

30. _____ If I could, I would go into a different occupation.*
31. _____ I can see myself in this occupation for many years.
32. _____ My chosen occupation is a good choice.
33. _____ If I could, I would not choose this occupation.*
34. _____ If I had no need for more money, I would still continue in this occupation.

- 35. _____ Sometimes I am dissatisfied with this occupation.*
- 36. _____ I like my occupation too well to give it up.
- 37. _____ My education was not for this occupation.*
- 38. _____ I have the ideal occupation for my life's work.
- 39. _____ I wish I had chosen a different occupation.*
- 40. _____ I am disappointed that I entered this occupation. *

*Items reverse coded in data analysis so that a high score indicated a high degree of occupational commitment.

The following 13 statements concern your involvement with your job. Please read each statement carefully and decide if you agree or disagree. Please place the appropriate number (from 1 to 6) in the blank that best describes how much you agree or disagree.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

- 41. _____ You are able to balance quality time between your work and your family/personal commitments.
- 42. _____ You are able to balance work demands without unreasonable compromises on family/personal responsibilities.
- 43. _____ You are able to have a fulfilling personal life and adequately perform your work responsibilities.
- 44. _____ A good work-life balance for agriscience teachers helps provide a more effective and successful agricultural education profession.
- 45. _____ A good work-life balance for agriscience teachers helps retain teachers in the profession.
- 46. _____ After work, I come home too tired to do some of the things I'd like to do.
- 47. _____ On the job, I have so much work to do that it takes away from my personal interests.
- 48. _____ My family/friends dislike how often I am preoccupied with my work while I am at home.
- 49. _____ My work takes up time that I'd like to spend with family/friends.
- 50. _____ I'm often too tired at work because of the things I have to do at home.
- 51. _____ My personal demands are so great that it takes away from my work.
- 52. _____ My administration and peers dislike how often I am preoccupied with my personal life while at work.
- 53. _____ My personal life takes up time that I'd like to spend at work.

Open response: Why do you continue to teach agricultural education?

Appendix C: Pre-notice Email

Dear [First Name],

In a few days you will receive a request, via email, to complete an online questionnaire for an important regional research project being conducted by a doctoral candidate from both Texas Tech University and Texas A&M University.

It concerns variables that have an effect on agriculture teachers' decisions to remain in teaching. This survey instrument is intended for experienced agriculture teachers who are currently teaching in the secondary classroom and will only require 15 minutes of your time.

I am writing in advance because many people like to know ahead of time that they will be contacted. The study is an important one that will help our profession identify factors that influence agricultural educators to continue teaching and potentially be used to design professional development events to meet the needs of experienced educators.

Thank you for your time and consideration. It's only with the generous help of people such as yourself that the research can be successful.

Sincerely,
Nina Crutchfield, Doctoral Candidate
Scott Burris, TTU Dissertation Co-advisor
Gary Wingenbach, TAMU Dissertation Co-advisor

Appendix D: Cover letter and agreement email

Dear [FirstName],

It is not known why agricultural educators choose to remain in the teaching profession. As a former agriscience teacher myself, I am asking your help in determining the influences that result in agriscience teachers' deciding to make agriscience teaching their life's work. We would appreciate it if you would spend fifteen minutes responding to the online questionnaire.

Here is a link to the survey: [SurveyLink]

Your responses, together with others, will be combined and used for statistical summaries only. **Your participation in this study is voluntary and you may refuse to answer any question.** Your input is important to the study and to the profession. It is imperative that we receive your responses by October 9th in order to include them in the data analysis.

The answers you provide will be kept confidential to the extent permitted by law. The data will be seen only by the researchers and password protected to ensure confidentiality of your responses. Your responses will be destroyed once the data have been tallied. There are no foreseeable risks to you as a participant in this project; nor are there any direct benefits.

If you have any questions, please contact me at 501-827-1866 or by e-mail at nina.r.crutchfield@ttu.edu. If I am not available when you call, please leave a message and I will call back.

If you have questions about your rights as a participant in this research project, please contact the Texas Tech University Institutional Review Board Human Protections Administrator at 806-742-3884 or by e-mail at ORS@ttu.edu.

Sincerely,
Nina Crutchfield, Doctoral Candidate
Scott Burris, TTU Dissertation Co-Chair
Gary Wingenbach, TAMU Dissertation Co-Chair

Appendix E: Follow-up Email

Dear [FirstName],

Earlier in the week you received a link to an online questionnaire seeking your opinions concerning the factors that lead agricultural educators to remain in the classroom.

If you have already completed and submitted the questionnaire, please accept our sincere thanks. If not and if possible, please take 15 minutes to complete it today. It is imperative that we receive your responses by October 9th in order to include them in the data analysis.

Your responses are very important. The survey link is here: [Survey Link]

A great deal of research exists on why agriculture teachers leave the profession but virtually none on why they stay. Being a former agriculture teacher myself, I believe your opinions are valuable. Your responses are very important not only to the AgEd profession but to me.

Thank you again for your time and consideration.

Sincerely,
Nina Crutchfield, Doctoral Candidate
Scott Burris, TTU Dissertation Co-chair
Gary Wingenbach, TAMU Dissertation Co-chair

Appendix F: Paper Instrument Cover Letter

Dear [FirstName],

We sent a link to an online questionnaire to you and other experienced agriculture teachers in the southern region that asked your opinion concerning the factors influencing your decision to remain in the classroom.

To the best of our knowledge, you have not yet completed this survey. We are sending a paper copy to ensure that your responses are included and to ensure accurate results.

Although we sent questionnaires to teachers in the southern region and many have responded, it's only by hearing from nearly everyone that we can ensure that the results are truly representative of our area. We hope that you will complete the questionnaire soon. It is imperative that we receive your responses by October 9th in order to include them in the data analysis.

If you are not a current agriculture teacher, or if for any reason you choose not to answer the questionnaire, please return it in the self-addressed/stamped envelope.

Protecting the confidentiality of people's answers is very important to us, as well as to Texas Tech University and Texas A&M University. Your identity will in no way be associated with your answers. Your identity will never be revealed.

If you have any questions about the survey, please contact me at 501-827-1866 or by e-mail at nina.r.crutchfield@ttu.edu. If I am not available when you call, please leave a message and I will call back.

If you have questions about your rights as a participant in this research project, please contact the Texas Tech University Institutional Review Board (IRB) Human Protections Administrator at 806-742-3884 or by e-mail at ORS@ttu.edu.

Sincerely,
Nina Crutchfield, Doctoral Candidate
Scott Burris, TTU Dissertation Co-Chair
Gary Wingenbach, TAMU Dissertation Co-Chair

Appendix G: Final Follow-Up Email

Dear [FirstName],

We realize your time is limited, but we are writing again to ask for your help in responding to the questionnaire addressing your decision to remain in teaching. We would like to have the input from every agriculture teacher in the southern region.

To the best of our knowledge, you have not yet completed this survey. Although we have asked experienced teachers from all areas of the southern region, it's only by hearing from nearly everyone that we can be sure that the results are truly representative.

A great deal of research exists on why agriculture teachers leave the profession but virtually none on why they remain. Being a former agriculture teacher myself, I believe your opinions are valuable and can help the profession.

Please, consider this short survey, either the electronic version or the paper copy you received in the mail. It is imperative that we receive your responses by October 9th in order to include them in the data analysis.

The survey is still available at [SurveyLink]

If you have been identified incorrectly, meaning you are not an experience agriculture teacher with 5 or more years of experience, please send an e-mail to nina.r.crutchfield@ttu.edu. Please also let me know if you have difficulty accessing or submitting the questionnaire.

If you have any questions about the survey, please contact me at 501-827-1866 or via e-mail. If I am not available when you call, please leave a message and I will call back.

Thank you again for your time and consideration.

Sincerely,

Nina Crutchfield, Doctoral Candidate

Scott Burris, TTU Dissertation Co-chair

Gary Wingenbach, TAMU Dissertation Co-chair