

Factors Affecting Turnover Intention of Ohio State University Extension Program Assistants

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Abstract

Extension program assistants' turnover intention is a key indicator of human resource development practice and overall effectiveness of organizational leadership. We used a survey design with four instruments to investigate the factors that influenced 149 Ohio State University Extension program assistants' turnover intention. The data showed significant associations between employees' age, years of service, job satisfaction, supervisor satisfaction, organizational commitment, and turnover intention. Organizational commitment mediated the relationship between job satisfaction and turnover intention. The research concludes with recommendations that may help to decrease extension program assistants' turnover intention.

Keywords: extension program assistant; job satisfaction; organizational commitment; supervisor satisfaction; turnover; turnover intention

Introduction

Turnover intention often predicts actual quitting behavior (Bedeian, Kemery, & Pizzolatto, 1991; Griffeth, Hom, & Gaertner, 2000; Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Hom & Griffeth, 1991). Over the last 40 years, a number of studies have addressed turnover within Cooperative Extension organizations. Employee retention was a major internal challenge for Extension programs (ECOP LAC, 2005). Similarly, Safrit and Owen (2010) emphasized that Extension programs nationwide have experienced employee turnover and retention issues. According to Hom and Griffeth (1991), turnover intention was strongly indicative of a person's intent to voluntarily and permanently withdraw from an organization. Previous research in Extension showed positive relationships between employees' turnover intention and heavy workload, burnout, occupational stress, work-life balance, low salary, long work hours, late-night meetings, lack of recognition, and high requirements for advancement (Clark, 1981; Clark, Norland, & Smith, 1992; Harder, Gouldthorpe, & Goodwin, 2015; Kutilek, 2000; Rousan & Henderson, 1996; Safrit & Owen, 2010; Sears Jr., Urizar Jr., & Evans, 2000; Strong & Harder, 2009; Van Tilburg, 1987; Van Tilburg, 1988; Young, Stone, Aliaga, & Shuck, 2013). Lack of organizational commitment and low job satisfaction increase Extension employee turnover and turnover intention (Martin & Kaufman, 2013; Strong & Harder, 2009). In 1983, Whaples emphasized,

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“Poor morale, job dissatisfaction, burnout, and agent turnover continue to plague Extension in many states” (p. 1). Later, Clark (1992) examined stress, burnout, job satisfaction, and the intent to leave among extension directors. He reported that personal accomplishments, role overload, and role responsibility were major indicators of stress. The author concluded that a “higher level of burnout was associated with higher stress and strain levels and lower personal accomplishment” (p. 2).

Turnover level has also been examined among agricultural teachers (Blackburn, Bunch, & Haynes 2017; Tippens, Ricketts, Morgan, Navarro, & Flanders, 2013). Blackburn et al. (2017) reported that despite reporting overall work satisfaction, a high rate of turnover still existed among agricultural teachers. Tippens et al. (2013) found that agricultural teachers were generally satisfied with their job and do not intend to leave their current position, however, burnout was identified as a dissatisfaction factor.

In the 1970s, Cooperative Extension organizations increased recruitment of paraprofessionals, which significantly benefited the Extension system (Boyce, 1970; Parsons & Kiesow, 1975). These paraprofessionals are known as Extension program assistants. They are usually full- or part-time adults hired to work under the supervision of extension professionals (Parsons & Kiesow, 1975).

Ohio State University (OSU) Extension program assistants are key employees of the organization, who serve as first-line extension professionals and help extension educators. Extension program assistants are responsible for recruiting individuals for an educational program. They use standardized curriculum materials to provide informal education and use standardized evaluation instruments to assess the knowledge, attitudes, and behaviors of participants within a program. In the OSU Extension, there are 367 full-time extension educators and program assistants, of which almost 50% are classified as program assistants. Turnover among program assistants is a significant problem for extension. For example, according to an OSU human resources professional, in 2015, the turnover rate was 12.1% for all OSU Extension personnel and 7.0% for extension educators but ranged from 13.3% to 57.1% for extension program assistants across different program areas (Burns, A., personal communication, October 29, 2015, and August 17, 2016). Almost all studies of Cooperative Extension employee turnover investigated extension agents—called educators in some states—as subjects of study; however, no researchers examined explicitly turnover intention among extension program assistants notwithstanding that high turnover among this category of extension employees became a national issue. Because of the value of program assistants’ work, it is important to investigate the factors that affect the high rate of turnover in this category of extension employees.

Conceptual Framework

For more than 60 years, social scientists have studied turnover phenomena to better understand employees’ mindset toward turnover intention and attitude toward the job. High turnover rates negatively impact organizational productivity and effectiveness (Long, Perumal, & Ajagbe, 2012). Early turnover models that were developed before 1980 created a foundation for research on turnover and turnover intention. March and Simon (1958), Mobley (1977), and Price (1977) were among the most influential scholars in turnover research. Their turnover models guide this investigation.

In their seminal 1958 work, March and Simon developed a turnover model that has influenced most turnover studies to date. In their model of turnover, an employee’s decision to leave was affected by two variables: (1) “perceived easy movement,” which is associated with perceived opportunities or alternatives; and (2) “perceived desirability of movement,” which is associated with an employee’s job satisfaction (Morrell, Loan-Clarke, & Wilkinson, 2001). Both factors independently affect an employee’s motivation to quit. Moreover, March and Simon (1958) differentiated employees by gender, age, and tenure. The March and Simon model perceives motivation only through job

satisfaction. Other factors such as stress (Kemery, Bedeian, Mossholder, & Toulaiatos, 1985; Morrell et al., 2001) and organizational commitment (Allen & Meyer, 1990) were not considered in the turnover process.

Mobley (1977) went further and presented an employee turnover model that expanded March and Simon's approach. Mobley added psychological elements in the turnover process to explain job dissatisfaction through a "withdrawal condition" of employees in the turnover process. Mobley's framework better explains employees' withdrawal behavior based on the cognitive process of understanding job satisfaction and intention to leave the job. There are three variables that describe withdrawal behavior: (1) "thinking of quitting" refers to when an employee considers quitting; (2) "intention to search" refers to an employee's decision to look for job alternatives outside the organization; and (3) "intention to quit" refers to an employee's decision to leave the organization sometime in future. However, Mobley's model of employee turnover does not include organizational commitment factors.

In 1977, Price presented a comprehensive model of voluntary turnover. Price (1977) defined turnover as leaving voluntarily. The initial Causal Model of Turnover included 11 determinants that affect turnover: routinization, opportunity, participation, integration, instrumental communication, pay, promotional opportunities, distributive justice, professionalism, kinship responsibility, and general training. The authors added job satisfaction and intent to stay later. Price (1977) examined the effect of organizational commitment as a mediator on the relationship between job satisfaction, its antecedents, and turnover intention. Price (1977) found that the original Causal Turnover Model to be "tentative and represents an attempt to construct a plausible synthesis of what is known about the variables that produce variations in turnover" (p. 549). Thirty years later, Price (2001) extended the Causal Model of Turnover. He divided causal factors into two groups: (1) exogenous variables, which included environmental, individual, and structural variables; and (2) endogenous or intervening variables, which included job satisfaction, organizational commitment, search behavior, and intent to stay. Among the major determinants of turnover were organizational commitment, job satisfaction, search behavior, and intent to stay. Price (2001) defined job satisfaction as a main predictor of organizational commitment and turnover intention.

Strong and Harder (2009) used Herzberg's motivational-hygiene theory to identify factors that affect Extension employee turnover and retention. They indicated that motivational factors included overall job satisfaction, employee professional development programs, mentoring programs, vocation, and supportive environment in the workplace. Comparatively, hygiene factors included inadequate salary, poor pay to workload ratio, financial opportunities outside Extension, heavy time obligations, unbalanced personal and professional life, and work-related stress. In our study, we measured employees' turnover intention using the Michigan organizational assessment questionnaire (MOAQ) (Cammann, Fichman, Jenkins, & Klesh, 1979). The MOAQ is an employee attitude survey that includes more than 350 items. The MOAQ includes 10 standardized modules. A second module measured an employee's general attitude including intention to turnover.

Based on the aforementioned turnover models and studies involving organizational commitment, job satisfaction, and supervisor satisfaction, we developed the following conceptual model (Figure 1) to frame this study. The conceptual model illustrates the primary factors that contribute to job satisfaction as a whole and demonstrates how job satisfaction, supervisor satisfaction, and organizational commitment relate to Extension program assistants' turnover intention. The direction of the arrows depicts the relationships among variables in the conceptual model. Dotted lines indicate a hypothesized mediating effect. We provided a literature review that supports the comprehensiveness of our conceptual model.

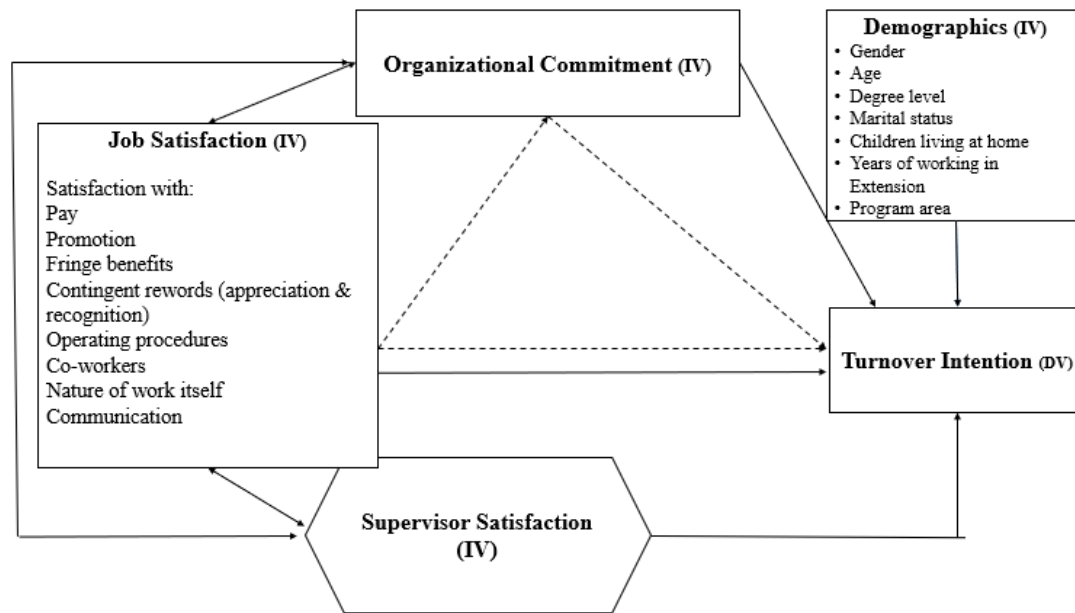


Figure 1. Conceptual model of employee's turnover intention.

Note: Dashed arrows inside of the model indicate an interaction (mediation) effect of organizational commitment on the relationship between job satisfaction and turnover intention.

Job satisfaction

Higher job satisfaction impacts employee effectiveness and job performance and helps organizations retain their employees (Heshizer, 1998). Locke (1976) characterized job satisfaction as enjoyable emotions from an individual's work experiences. Previous studies found that most agriculture teachers are satisfied with their work (Cano & Miller, 1992; Kitchel et al., 2012; Tippens et al., 2013; Walker, Garton, & Kitchel, 2004). Cano and Miller (1992) conducted a gender analysis of job satisfaction among agricultural education teachers. They found that the job satisfaction dimension included "achievement, advancement, recognition, responsibility, the work itself," and the job dissatisfaction dimension was comprised of "interpersonal relationship, policy and administration, salary, supervision/technical, and working conditions" (p. 43). Walker et al. (2004) indicated that all teachers were generally satisfied with their first-year teaching experience. However, the "lack of administrative support," "family issues," and "opportunities for advancement" were the reasons most frequently cited for leaving the profession (p. 35-36). Tippens et al. (2013) wrote that agricultural teachers were satisfied with the working conditions of their job and with items such as "classroom management," "administrative support," and "interaction with students" (p. 69). Kitchel et al. (2012) suggested that understanding job satisfaction within agricultural education has the potential to impact the future of the profession. Riggs and Beus (1993) reported that six factors are associated with Extension work satisfaction: the job itself, fringe benefits, authority to run programs, supervisors, salary, and opportunity for growth. Harder, Gouldthorpe, and Goodwin (2015) also examined Extension professionals' career satisfaction. They found that approximately 15% of participants reported they were somewhat or very dissatisfied with their job, and 5.2% reported being neither satisfied nor dissatisfied. In this study, we used Spector's (1985) *Job Satisfaction Survey* (JSS) to assess employees' job satisfaction through nine dimensions: pay, promotion, fringe benefits, contingent rewards, operating conditions, co-workers, nature of work, satisfaction with communication, and satisfaction with the supervisor.

Supervisor satisfaction

Previous studies found that employees' satisfaction with their supervisor relates to their satisfaction with work and ultimate turnover intention (Adebayo & Ogunsina, 2011; DeConinck & Stilwell, 2004; Scarpello & Vandenberg, 1987). However, according to Scarpello and Vandenberg (1987), satisfaction with supervisor indicates the degree of satisfaction with only the immediate supervisor and is different than being satisfied with the work environment or the work itself. Adebayo and Ogunsina (2011) reported that the nature of supervision is an important factor that influences an individual's satisfaction with work. DeConinck and Stilwell (2004) studied supervisor satisfaction in a model of turnover and found that supervisor satisfaction has a direct effect on worker withdrawal cognition. DeConinck and Stilwell (2004) concluded, "an employee may be satisfied with pay but dissatisfied with the supervisor" (p. 230). In 1987, Scarpello and Vandenberg developed the *Satisfaction with My Supervisor Scale* (SWMSS) specifically to assess "subordinate satisfaction with supervision," rather than work environment, with 18 items (p. 462). Scarpello and Vandenberg wrote that "currently available job satisfaction questionnaires are inadequate for measuring the satisfaction with the supervisor construct ... they intended to assess satisfaction with multiple job facets, only one of which is supervision" (1987, p. 448). In this study, we viewed supervisor satisfaction as a separate construct that allowed the researcher to measure supervisor satisfaction with a more robust scale and to ask more questions. Therefore, the subscale for supervisor satisfaction was omitted from the JSS and replaced with a more robust scale measuring satisfaction with supervisors. We used Scarpello's (1987) SWMSS to better understand employees' attitudes and perceptions toward their supervisors.

Organizational commitment

Previous studies have demonstrated that organizational commitment is an important predictor of employee turnover intention as well as actual turnover (Carter, Pounder, Lawrence, & Wozniak, 1989; Lumley, Tladinyane & Ferreira, 2011; McCracken, Smith, & Soundi, 1984; Meyer & Allen, 1991; Mowday, Porter, & Steers, 1982; Porter & Smith 1970). McCracken et al. (1984) wrote that commitment is equal to dedication. The authors emphasized that many Extension agents devote their life to serve Extension clientele. Also, they indicated that those agents who are intrinsically motivated provide better service. Carter et al. (1989) found a negative correlation between organizational commitment and intention to leave the organization. Martin and Kaufman (2013) found a strong and negative correlation between intent to quit and job satisfaction as well as between intent to leave and organizational commitment. The authors concluded that Extension agents who were satisfied with their job and committed to the organization do not intend to leave their job. Meyer and Allen (1991) identified three forms of organizational commitment: (1) affective commitment, which is associated with employees' attachment to, identification with, and involvement in the organization; (2) continuous commitment, which is associated with employees' recognition of the expense of turnover; and (3) normative commitment, which is associated with employees' perceptions and feelings regarding staying with the organization. In 1970, Porter and Smith defined organizational commitment as "an individual's identification with involvement in a particular organization" ... based on ... "(1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to maintain membership in the organization" (p. 27). The term "organizational commitment" was adopted from Mowday, Steers, and Porter's (1979) definition and, in this study, is viewed as the relative strength of a program assistant's identification and involvement in OSU Extension. In our research, we used the Mowday et al. (1979) questionnaire to measure extension employees' organizational commitment, which is further detailed in the method section.

The literature review indicated that low job satisfaction, low supervisor satisfaction, and lack of organizational commitment influence employee-turnover intention. Moreover, there is a general

agreement in the literature that employee turnover intention is the best predictor of actual turnover behavior (Mowday, Koberg, & McArthur, 1984; Steele & Ovalle, 1984). However, a gap exists with regard to the degree of effect, direction, path, and the interactive effects (moderation and mediation) found among the previously investigated variables across turnover models (Mitchell & Lee, 2001; Price, 2001).

Purpose and Research Questions

Our purpose for the study reported here was to investigate factors that affect turnover intention of OSU Extension program assistants. We explored the relationships between turnover intention and demographic variables, job satisfaction, supervisor satisfaction, and organizational commitment. Our study was guided by the following research questions:

1. What is the relationship between OSU Extension program assistants' turnover intention and the demographic variables of age, gender, degree level, program area, marital status, children living at home, and years of service?
2. What is the relationship between turnover intention and the independent variables of job satisfaction, supervisor satisfaction, and organizational commitment?
3. To what extent does organizational commitment mediate the relationship between job satisfaction and turnover intention?

Methods

We used survey methods to address the three research questions of the study reported here. Specifically, we used an online questionnaire to measure employees' turnover intention and other employment-related variables. We developed a questionnaire using four existing instruments that have been extensively used in previous research. We also included seven demographic questions. We obtained permission to use the instruments from the original authors. A panel of seven Extension educators, program assistants, and academic faculty members with expertise in survey methodology and Extension employees' satisfaction with work environments reviewed the instrument for face and content validity. The panel of experts determined that the instrument is sufficiently valid. A summary of the instruments used to measure Extension program assistants' turnover intention, including Cronbach alpha coefficients from the original and posthoc reliability of the current study are provided in Table 1.

Table 1

Summary of Instrument for Survey of OSU Extension Program Assistants

Instrument	Variable measured	Scale	Cronbach's alpha original/ OSU Extension program assistant study	Total items (items adapted for OSU Extension program assistant study)
<i>Job Satisfaction Survey*</i> (Spector, 1985)	Job satisfaction	6-point Likert-type scale from 1 (<i>disagree very much</i>) to 6 (<i>agree very much</i>)	0.91 (.90)	36 (32)

Table 1

Summary of Instrument for Survey of OSU Extension Program Assistants Continued...

<i>The Satisfaction With My Supervisor Scale</i> (Scarpello & Vandenberg, 1987)	Supervisor satisfaction	5-point Likert-type scale from 1 (<i>very dissatisfied</i>) to 5 (<i>very satisfied</i>)	0.95 - 0.96 (.96)	18 (18)
<i>Organizational Commitment Questionnaire</i> (Mowday, Steers, & Porter, 1979)	Organizational commitment	7-point Likert-type scale from 1 (<i>strongly disagree</i>) to 7 (<i>strongly agree</i>)	0.82 - 0.93 (.91)	15 (9)
<i>The Michigan Organizational Assessment Questionnaire</i> (Cammann, Fichman, Jenkins, & Klesh, 1979)	Turnover intention	7-point Likert-type scale from 1 (<i>strongly disagree</i>) to 7 (<i>strongly agree</i>)	0.83 (.93)	3 (3)

Respondents were asked to express their perceptions and feelings related to job satisfaction, supervisor satisfaction, organizational commitment, and turnover intention. Turnover intention domains and examples of questionnaire items are presented in Table 2.

Table 2

Turnover Intention Domains and Examples of Questionnaire Items

Turnover Intention Domain	Item example
Job Satisfaction	"I feel I am being paid a fair amount for the work I do." "When I do a good job, I receive the recognition for it that I should receive." "I feel a sense of pride in doing my job."
Supervisor satisfaction	"The way my supervisor listens when I have something important to say." "The way my supervisor treats me when I make a mistake." "My supervisor's fairness in appraising my job performance."
Organizational commitment	"I find that my values and the organization's values are very similar." "I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful."

Table 2

Turnover Intention Domains and Examples of Questionnaire Items Continued...

Turnover intention	“How likely is it that you will actively look for a new job in the next year?” “I often think about leaving the organization.” “I will probably look for a new job in the next year.”
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The target population for our study was OSU Extension program assistants with a full-time appointment. In our study, we used a census approach and followed Dillman, Smyth, and Christian's (2014) online data collection technique. The director of OSU Extension sent a pre-notification email to program assistants and ask them to participate in this study. We sent a second pre-notification email and four email reminders. Data collection occurred January 11-27, 2017. The population of the study reported here was 182 OSU Extension program assistants with full-time appointments. The final data set included responses from 149 employees for a response rate of 81.86%.

Miller and Smith (1983) suggested comparing early and late respondents to assess non-response error. Early and late responses were compared to evaluate non-response error in this study. The early and late phases of responders were determined based on the day and time their questionnaire was submitted. The survey was available 17 days for the early/late respondents. The cut-off point of the first 17 days was chosen. The number of returned questionnaires dropped noticeably after 7 to 17 days. The results of defining early responses in this study were similar to another study Chen, Wei, and Syme (2003) that also defined early respondents. The response rate was highest in the first weeks, for example, 64% of all questionnaires were completed before the 4th day. A small peak was observed after sending each reminder. Researchers designated the first 40 respondents as the early-phase respondent group, and the last forty respondents were identified as the late-phase respondent group. An independent *t*-test was conducted to determine if the group mean for total scores on the four measured constructs (job satisfaction, supervisor satisfaction, organizational commitment, and turnover intention) differed between two group respondents (early and late) at the alpha level of .05, two-tailed. Significant mean differences would indicate a difference between early and late respondents. The results showed there were no statistically significant differences between early and late respondents who provided data for the measures of employee turnover intention, job satisfaction, supervisor satisfaction, and organizational commitment. These findings suggest that data collected from Extension program assistants were representative of the entire study population.

Participants

Most participants were women (87.24%) with an average age of 43 years ($SD = 14.13$), married (63%), with a bachelor's degree (55.70%), and had worked at the extension for approximately six years ($SD = 7.87$). More than 30% of respondents had children under 18 who lived at home. However, respondents were not equally distributed across program areas to reflect the actual target population distribution across all program areas in the organization. In our study, we had no respondents from the community development program area. However, we had 62.42% responses from program assistants who represent the family and consumer sciences program area, including EFNEP (Expended Food and Nutrition Education Program) and SNAP-Ed (Supplemental Nutrition Assistance Program Education) program assistants. Agriculture and natural resources accounted for 5.27% of participants and 4-H youth development accounted for 18.79%. Approximately 12.75% of respondents had no affiliation with any program area; they represented program assistants who work at the state level.

Data Analysis

We used SPSS version 24 to analyze the data. A chi-square analysis helped to identify association between turnover intention and categorical demographic variables; to answer research question one, regression analysis helped identify an association between turnover intention and continuous demographic variables. For research question two, an application of the Pearson correlation coefficient helped to measure associations between turnover intention and the three independent variables: job satisfaction, supervisor satisfaction, and organizational commitment. We used standard Davis Conventions (1971) to describe the magnitude of the correlation between independent and dependent variables. We used Hayes SOBEL analysis to investigate a mediation effect. The Sobel (1982) normality theory test is a method to calculate the significance of an indirect or mediation effect. Andrew F. Hayes is an author of the PROCESS Macro, which is a path analysis modeling tool for SPSS based on the Sobel's theory (Hayes, 2013). This statistical tool helps estimate indirect and direct effects in mediation and moderation models. The SOBEL test recommends performing with a sample size greater than 50. The SPSS SOBEL Macro® application helped to investigate a mediation effect to answer research question three. We summed the total scores for each construct to measure participants' job satisfaction, supervisor satisfaction, organizational commitment, and turnover intention.

Findings

Impact of Demographics on Turnover Intention

A chi-square test of independence showed that there was no association between OSU Extension program assistants' turnover intention and gender, degree level, marital status, children living at home under 18, or program area (see Table 3).

Table 3

Chi-Square Analysis on Association between Turnover Intention and Selected Categorical Demographic Variables

Demographic Variables	<i>n</i>	χ^2	<i>df</i>	<i>p</i>
Gender	141	2.833	2	.243
Level of education	141	14.399	8	.072
Marital status	141	13.191	8	.105
Children living at home under 18	141	1.789	2	.407
Program areas	142	7.303	6	.294

Note: $p < .05$

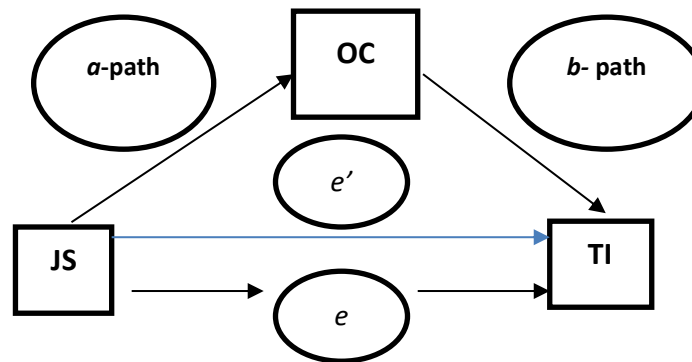
We used a linear regression analysis to describe the relationship between turnover intention and age as well as turnover intention and years of service. A simple linear regression model with only age as a predictor showed that age was significant in predicting turnover intention. We found a moderate negative association between turnover intention and age ($r = -.30, p < .001$). However, age explained only 8.2% of the variation in turnover intention ($R^2 = .082$), and there was still much unexplained variation after fitting the model. A linear regression model with only years of service as a predictor showed that years of service was significant in predicting turnover intention. We found a low negative association between turnover intention and years of service ($r = -.249, p < .001$). Years of service explained only 6.2% of the variation in turnover intention ($R^2 = .062$), so there was still much unexplained variation after fitting this model.

Impact of Job Satisfaction, Supervisor Satisfaction, and Organizational Commitment on Turnover Intention.

Application of the Pearson correlation coefficient showed moderate negative associations between job satisfaction and turnover intention ($r = -.60, p < .01$), between organizational commitment and turnover intention ($r = -.58, p < .01$), and between supervisor satisfaction and turnover intention ($r = -.48, p < .01$).

Mediation of Organizational Commitment the Relationship between Job Satisfaction and Turnover Intention.

We used Hayes SOBEL analysis to investigate the extent to which organizational commitment mediates the effect of job satisfaction on turnover intention. The results indicated that organizational commitment mediated the effect of job satisfaction on turnover intention. Organizational commitment ($R^2 = .282$) accounted for approximately 28% of the variance in turnover intention. Figure 2 illustrates the path model for the mediation effect of organizational commitment on the relationship between job satisfaction and turnover intention.



e = a direct effect, JS affects TI

a -path = an indirect effect, JS affects OC

b -path = an indirect effect, OC affects TI

e' = a mediation design, JS affects TI indirectly through OC

Figure 2. Path model for estimating mediation effect* of organizational commitment (OC) on relationship between job satisfaction (JS) and turnover intention (TI) based on Baron and Kenny (1986).

Application of the Pearson correlation coefficient showed job satisfaction had a moderate negative association with turnover intention ($r = -.60, p < .01$) and a moderate positive association with organizational commitment ($r = .67, p < .01$). Organizational commitment had a moderate negative association with turnover intention ($r = -.58, p < .01$). We used the Hayes SOBEL for the mediation analysis, the results shown below ($n = 149$).

1. JS had a total direct effect on TI that was statistically different from zero ($\beta = -1.81, p < .0001$; e -path in Figure 2).
2. JS had a direct effect on OC that was statistically different from zero ($\beta = 1.17, p < .0001$; a path in Figure 2).
3. When the effects of JS were controlled for, OC had an effect on TI that was statistically significant ($\beta = -.57, p = .0002$, b -path in Figure 2).

When the effects of OC were controlled for, JS had a direct effect on TI that was statistically different from zero ($\beta = -1.14$, $p < .0001$, e' in Figure 2). The results indicated that organizational commitment partially mediated the relationship between job satisfaction and turnover intention. The Hayes SOBEL test helped estimate the indirect effects JS had on TI through OC ($Z = -3.54$, $p = .0004$). The true indirect effect was estimated to lie between .1814 and .3905 and was statistically significant with a 95% confidence (Figure 2).

The analysis showed the evidence of mediation effect of organizational commitment. We found a significant indirect effect of employees' organizational commitment on the relationship between job satisfaction and organizational commitment. In other words, employee's high job satisfaction will reduce turnover intention by increasing employee's organizational commitment.

Discussion, Implications, and Recommendations

Human capital is an essential resource for any organization. Extension program assistants are an important resource for OSU Extension. Extension program assistants help to recruit Extension clientele and deliver and evaluate educational programs using standardized materials.

Our study results confirm the findings of previous research that identified negative correlations between turnover intention and demographic variables such as age and years of service (Rousan & Henderson, 1996; Kutilek, Conklin, & Gunderson, 2002; Strong & Harder, 2009; Van Tilburg & Miller, 1987; Windon, 2017). Our findings reflect the idea that younger employees have more job mobility and tend to have more voluntary turnover. However, OSU Extension program assistants' gender, marital status, level of education, children living at home under 18, and program areas are not related to turnover intention.

There is no association between Extension program assistants' turnover intention and their program area. However, an OSU Extension HR professional (Burns, A. personal communication, October 29, 2016 and August 17, 2016) indicated that there is a big difference in actual turnover across different program areas. A disproportion of the actual target population distribution across Extension program areas in the organization is a limitation of the study. Authors assume that unequal representation of participants across program areas may have affected the results. In the study reported here, a majority (62.6%) of the participants represent the family and consumer science program area, whereas approximately 19% represent 4-H youth development and only 5.42% work in agricultural and natural resources program area. There were no program assistants from the community development program area, which makes impossible to generalize the result of our study. Besides, the scope of our research was limited by data from only one state.

The findings from our research confirm Brough and Frame's (2004) study results and suggest that gender is independent of turnover intention and there is no significant association between OSU Extension program assistants' turnover intention and gender. The chi-square test of independence in our study reveals that turnover intention among male program assistants is higher compared to females but is not significant, which may be attributed to the very large disproportion between numbers of male and female participants. In contrast, both Xu (2008) and De Moura, Abrams, Retter, Gunnarsdottir, and Ando (2009) found that an association with turnover intention was stronger among men than women. Also, the results of our study confirm Brough and Frame's (2004) research findings in that employees' turnover intention does not have a significant relationship with their marital status.

The results of our study support previous findings reported in the literature, specifically that lack of job satisfaction, supervisor satisfaction, and organizational commitment are related to employee withdrawal behavior (Brough & Frame, 2004; Firth, Mellor, Moore, & Loquet, 2003; Martin &

Kaufman, 2013; Strong & Harder, 2009; Van Tilburg & Miller, 1987; Yücel, 2012). The findings of our research are generally consistent with previous research and show that OSU Extension program assistants' job satisfaction, supervisor satisfaction, and organizational commitment are important predictors of their turnover intention. The results of our study support findings by Yücel (2012) that "high levels of job satisfaction results in higher commitment and lower turnover intention" (p. 44). Also, the findings of our study support Brough and Frame's (2004) research, which showed that job satisfaction has a negative relationship with turnover intention

Our findings also support the research conclusions of Carter, Pounder, Lawrence, and Wozniak (1989), and Martin and Kaufman (2013) who examined Cooperative Extension Service agents' turnover intention. Carter et al. (1989) found a negative correlation between organizational commitment and intention to leave the organization. Moreover, they found that as a single predictor, organizational commitment explained 39.4% of variance in the turnover model. Martin and Kaufman's (2013) results indicate a strong negative relationship between job satisfaction and intent to quit ($r = -.619, p < .001$) and between organizational commitment and intent to quit ($r = -.652, p < .001$). They suggested, "the administration should share experiences and best practices with each other to improve the satisfaction and commitment of their employees and reduce their intent to quit" (p. 1). The results of our study support Martin and Kaufman's (2013) research and confirm that extension agents who have higher job satisfaction and organizational commitment have a lower intention to leave their job.

A large body of previous findings indicates that the relationship between an employee and the organization directly and indirectly affects the employee's perceptions and attitude toward the organization and provides a mediated effect on employee turnover intention (Avey, Wu, & Holley, 2015; Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002; Firth et al., 2003; Joo, 2010; Maertz, Griffeth, Campbell, & Allen, 2007; Peltokorpi, Allen, & Froese, 2015; Rhoades, Eisenberger, & Armeli, 2001; Rhoades & Eisenberger, 2002). Our findings confirm that higher organizational commitment was related to lower turnover intention. Moreover, it offers evidence that organizational commitment mediates the relationship between employee job satisfaction and turnover intention among OSU Extension program assistants. Organizational commitment accounts for approximately 28% of the variance in turnover intention. OSU Extension program assistants' turnover intention is significantly related to organizational commitment. This mediation means that OSU Extension program assistants' higher job satisfaction increases employee organizational commitment, which led to lower turnover intention. Our results confirm Joo's (2010) findings and offer evidence that organizational commitment mediates the effect of employee job satisfaction on turnover intentions among OSU Extension program assistants. Joo (2010) concluded that organizational commitment plays an important role as a full mediator in employees' turnover intention. In his study, approximately 40% of the variance in turnover intention was explained by organizational commitment, which indicates that organizational commitment significantly impacts turnover intention (Joo, 2010).

Administrators are concerned with the voluntary turnover of OSU Extension program assistants because of the high costs of replacing those employees. Job satisfaction, supervisor satisfaction, and organizational commitment were predictors of employee turnover intentions.

Our research has specific practical implications for Extension regarding the importance of conducting formal assessments of employees' perceptions of organization and supervision, addressing work-related issues and challenges through mentoring program, and offering targeted professional development. Extension personnel and researchers can use the following recommendations to reduce employees' turnover intention. Some recommendations are at the organizational level, which administrators, human resources, and talent development professionals should consider. Other recommendations below are for individuals, that is, Extension program assistants.

First, formal and regular assessments of employees' perceptions may help to measure the organizational and supervision environment. Formal assessments will inform Extension administration and human resource practitioners about employees' perceptions of job satisfaction, supervisor satisfaction, and organizational commitment. The findings of the research presented here suggest that lack of job satisfaction, supervisor satisfaction, and organizational commitment are strong predictors of turnover intention. We suggest Saunders and Reese's (2011) "Roadmap for Excellence" as a tool that may help navigate and guide employees toward work progress and success. The "Roadmap for Excellence" provides specific recommendations for employees as well. Organizations should develop a roadmap tool for each category of employees to enhance human resource practices. The roadmap tool may help foster, and promote greater employee satisfaction with their work and supervisors, as well as increase employees' organizational commitment and reduce turnover intention.

Second, implementing a formal and structured mentoring program for Extension program assistants will foster a collaborative culture. Denny (2016) emphasized that formal and informal mentoring is essential for employees' career development. Place and Bailey (2010) indicated that mentors can assist mentees in being successful in the workplace. The authors wrote that the opportunity to share and discuss in the workplace leads to employees' positive work relationship and higher productivity. Easterly and Myers (2018) recommended developing the relationship between mentor and mentees and fostering informal dialogue among agricultural teachers. We believe that sharing work-related issues and challenges with mentors is important. Mentors can help mentees better understand the complexities of the organizational environment and provide guidance, support, and advice. Mentoring practices may increase employees' job satisfaction, supervisor satisfaction, organizational commitment, and reduce their intention to leave the organization.

Third, targeted professional development may increase the level of organizational commitment, which positively affects employees' satisfaction with their supervisor and decrease their turnover intention. Easterly and Myers (2018) found a positive correlation between professional development engagement and career satisfaction among agricultural teachers. Extension human resource practitioners might use the results of our study as a baseline to improve their work. For example, identified deficiencies in employees' perceptions of organizational commitment may help in designing targeted training, which helps increase employees' job satisfaction and reduce their turnover intention. Also, implementing continuous and targeted face-to-face professional development will foster a professional community and provide practical recommendations in the workplace that may decrease employees' intention to leave the organization.

In closing, we call for future research that complements our study. For the study reported here, we use four existing instruments. It may be beneficial to conduct an integrative inquiry of prior research within Extension programs to determine which employee turnover model is most appropriate for studying turnover intention issues in the workplace. The results of future research may enhance employees' retention strategies. Also, future research may benefit from examining the relationships between supervisors' work styles and actual turnover to determine the extent to which changing one factor might be expected to impact other factors within the organization and employees' general satisfaction with work. To summarize, formal assessment of employees' perceptions toward the organizational and supervision environment, timely addressing of work-related issues and challenges, as well as using a mentorship program and implementing continuous and targeted professional development for employees are keys to building and maintaining employees' satisfaction with their jobs and supervisors, and to promoting higher levels of organizational commitment.

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