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# Job Satisfaction and Job Embeddedness as Predictors of Manufacturing Employee Turnover Intentions

Angie R. Skelton  
*Walden University*

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# Walden University

College of Management and Technology

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Angie Skelton

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2017

Abstract

Job Satisfaction and Job Embeddedness as Predictors of Manufacturing Employee  
Turnover Intentions

by

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MBA, Regis University, 2009

BS, University of Mississippi, 1998

Doctoral Study Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Business Administration

Walden University

October 2017

## Abstract

Unplanned and frequent employee turnover can result in significant costs to an organization. Grounded in Herzberg's two-factor theory, the purpose of this correlational study was to examine the relationship between employees' job satisfaction and their degree of job embeddedness, and their intent to leave the organization. In this study, 63 full-time Southeastern U.S. manufacturing employees completed surveys that included the Andrews and Withey's job satisfaction questionnaire, Crossley, Bennett, Jex, and Burnfield's global measurement of job embeddedness, and Mobley, Horner, and Hollingsworth's intent to stay scale. The results of the multiple regression analysis indicated the model was able to significantly predict employee turnover intention,  $F(2, 95) = 71.822, p < .001, R^2 = .705$ . Both employee job satisfaction ( $t = -.703, p < .001$ ) and employee job embeddedness ( $t = -.501, p < .001$ ), were statistically significant predictors of turnover intent. These results indicate that satisfied and committed employees are less likely to plan to leave their employment. This research adds to the body of knowledge concerning what contributes to why people leave their jobs. Reduced employee turnover can financially benefit an organization and that in turn can have a positive social benefit on the community. More secure employees and companies with improved financial security can result in improved financial support to communities and help increase economic stability.

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## Dedication

I dedicate this study to my husband, Robert, and my children, Chloe and Mia. Robert, without you, I would have never taken the step of faith to begin this journey. Thank you for pushing me when I needed it, encouraging me when I had no strength to continue, and loving me at both my best and worst. Also, thank you for pushing me to move outside of my comfort zone and showing me how to think analytically and critically about all that surrounds me. You truly are the love of my life.

To Chloe and Mia, know that you both can accomplish anything to which you set your minds. Never settle for anything other than giving your all in everything you do (Matthew 15:49-58). It is for you that I started this journey. Never settle. Always keep growing, learning, and bettering yourselves. You never know how God will use you. Know that I love you more than words can describe.

To my parents, thank you for instilling in me Christian values, the love of God, and the love for others. Thank you for showing me the importance and value of education and pushing me always to do the best I can in all things, not so that I might receive the glory but so that Christ can receive the praise. You both have supported me and my endeavors for a lifetime. I can never repay all that you have given me, but I hope to pass these values to my girls. I love you both so much.

To my grandparents, who prayed for me at times without ceasing, only one of you is still here to see this day. However, the three of you who are gone are not forgotten, and your values still live on through me today. I know all of you would be cheering the loudest of everyone if you were here to see this day. I dedicate this study to you all.

## Acknowledgments

The completion of this study would not have been possible without the mentoring and guidance of my current committee members, Dr. Deborah Nattress and Dr. Diane Dusick, and my initial chair, Dr. Leslie Miller. I want to thank you all for the time and faith you placed in me during the last 2 years. Without all of you, this day would never have become a reality.

I also want to thank my entire family, church family, and friends and my former teachers, professors, and instructors. Each of you has played a part in making me who I am and getting me to this day.

Above all, though, I would like to thank God for granting me the abilities to see this project to the finish line. Without You, I am truly nothing.

## Table of Contents

List of Tables .....	v
List of Figures .....	vi
Section 1: Foundation of the Study.....	1
Background of the Problem .....	1
Problem Statement .....	2
Purpose Statement.....	3
Nature of the Study .....	3
Research Question .....	5
Hypotheses .....	5
Theoretical Framework.....	5
Operational Definitions.....	6
Assumptions, Limitations, and Delimitations.....	7
Assumptions.....	7
Limitations .....	8
Delimitations.....	9
Significance of the Study .....	9
Contribution to Business Practice .....	10
Implications for Social Change.....	10
A Review of the Professional and Academic Literature.....	12
Application to the Applied Business Problem .....	13



Theories Related to Employee Job Satisfaction, Job Embeddedness, and	
Turnover Intent .....	14
Turnover.....	18
Turnover Intent .....	19
Antecedents to Turnover.....	21
Human Capital Aspect .....	33
Organizational Commitment.....	36
Drivers for Intent to Stay .....	37
Strategies for Job Retention.....	39
Geographic Location for this Study.....	40
Transition .....	41
Section 2: The Project.....	43
Purpose Statement.....	43
Role of the Researcher .....	44
Participants.....	45
Research Method and Design .....	45
Research Method .....	46
Research Design.....	47
Population and Sampling .....	47
Population .....	47
Sampling .....	48
Ethical Research.....	50

Data Collection Instruments .....	52
Data Collection Technique .....	56
Data Analysis .....	58
Explanation of Data Screening and Cleaning Procedures and Missing Data .....	59
Assumptions Pertaining to the Statistical Analyses .....	60
Violations of Assumptions.....	62
Interpretation of the Inferential Results .....	62
Study Validity .....	64
Internal Validity .....	64
External Validity.....	64
Statistical Conclusion Validity .....	65
Transition and Summary.....	65
Section 3: Application to Professional Practice and Implications for Change .....	67
Introduction.....	67
Presentation of the Findings.....	68
Model Fit.....	70
Descriptive Statistics.....	70
Inferential Statistics Results.....	72
Assumption Testing .....	73
Comparison of Study Results to Information from the Literature Review.....	83
Applications to Professional Practice .....	84
Implications for Social Change.....	85

Recommendations for Action .....	86
Recommendations for Further Research.....	88
Reflections .....	90
Conclusion .....	92
References.....	93
Appendix A: Andrews and Withey’s Job Satisfaction Questionnaire .....	132
Appendix B: Crossley, Bennett, Jex, and Burnfield’s Global Job Embeddedness Scale .....	133
Appendix C: Mobley, Horner, and Hollingsworth’s Intent to Stay Scale .....	134
Appendix D: Andrews and Withey Instrument Permission Request.....	135
Appendix E: Permission to Use Crossley, Bennett, Jex, and Burnfield’s (2007) Global Job Embeddedness Scale .....	136
Appendix F: Permission to Use Mobley, Horner, and Hollingsworth’s (1978) Turnover Intent Instrument.....	137

## List of Tables

Table 1. Synopsis of Sources in Literature Review .....	13
Table 2. Model Summary .....	70
Table 3. Descriptives Statistics .....	71
Table 4. Frequency of Responses for Criterion Variable, Turnover Intent .....	72
Table 5. Anova Results .....	73
Table 6. Correlational Results.....	75

## List of Figures

Figure 1. Scatterplot of job satisfaction and turnover intent.....	76
Figure 2. Scatterplot of job embeddedness and turnover intent.....	77
Figure 3. Histogram of job satisfaction.....	78
Figure 4. Histogram of job embeddedness .....	79
Figure 5. Normal Q-Q plot of job satisfaction.....	80
Figure 6. Normal Q-Q plot of job embeddedness.....	81
Figure 7. Normal Q-Q plot of turnover intent.....	82

## Section 1: Foundation of the Study

Employee turnover may result in damage to organizations by contributing to weakening financials and the loss of human capital (Heritage, Gilbert, & Roberts, 2016). If left unaddressed, increased employee turnover can also negatively affect local, state, and federal economies as waning corporate profits may subsequently result in lower taxes paid by organizations, decreased philanthropic donations, and increased physical and mental health costs (Vasquez, 2014). For these reasons, it is essential that business leaders understand the predictors of employee turnover so they can develop strategies to address it. Therefore, the purpose of this quantitative correlational study was to help manufacturing managers in the Southeastern United States understand the extent to which two key variables, employee job satisfaction and job embeddedness, are predictors of employee turnover intentions.

### **Background of the Problem**

A significant correlation exists between the financial performance of manufacturers and employee turnover, making employee turnover intent a substantial area of study within the manufacturing industry (Hancock, Bosco, McDaniel, & Pierce, 2013). Employee turnover is important to address because high attrition can affect companies directly and indirectly, resulting in increased hiring and training costs, lost production opportunities, reduced profits, and overall lower employee morale (Hayward, Bungay, Wolff, & MacDonald, 2016). Studying employee turnover in manufacturing is critical as more than 12 million individuals work in the industry, accounting for approximately 8.8% of the U.S. economy (Scott, 2015). A high number of U.S.

manufacturing employees work in the Southeastern region of the country, where manufacturing organizational leaders employ 19% of the industry's workforce (Scott, 2015; United States Environmental Protection Agency, 2016). As Vasquez (2014) stated, a ripple effect from employee turnover could ultimately lead to a global economic slowdown, which can affect all of society. Therefore, this study could prove significant to both manufacturing organizations and society.

The specific business problem addressed through this study is that some manufacturing managers in the Southeastern United States do not understand the extent to which employee job satisfaction and job embeddedness predict employee turnover intentions. Recent scholars studying the problem of employee turnover intent have focused on areas outside of the United States and in industries other than manufacturing (see Lu & Gursoy, 2016; Yahyagil, 2015). Since limited current research exists on employee turnover in Southeastern U.S. manufacturing, according to my review of the literature, this study remains timely.

### **Problem Statement**

Unplanned and frequent employee turnover can result in significant costs to an organization (Nyberg & Ployhart, 2013). Total employee turnover expenses can cost businesses more than 100% of a single employee's annual wages or salary, depending on the level of the job left unoccupied (Upadhayay & Vrat, 2016). The general business problem is that when employees leave organizations, a loss of valuable human capital occurs, which may hinder corporate profitability. The specific business problem is that some manufacturing managers in the Southeastern United States do not understand the

extent to which employee job satisfaction and job embeddedness are predictors of employee turnover intentions.

### **Purpose Statement**

The purpose of this quantitative correlational study was to examine the extent to which employee job satisfaction and job embeddedness (the predictor variables) predict employee turnover intentions (the criterion variable). The targeted population was manufacturing company employees in the Southeastern United States. Focusing on this population was appropriate, I believe. Researchers have extensively studied the problem of employee turnover in other industries and locations (see Lu & Gursoy, 2016; Robinson, Kralj, Solnet, Goh, & Callen, 2014; Yahyagil, 2015) but not in Southeastern U.S. manufacturing companies, according to my review of the literature. Almost 20% of all U.S. manufacturing occurs in this region (Scott, 2015; Sims, Ruppel, & Zeidler, 2016). By retaining employees, owners and managers within this region may be able to offer the public better products and services. With better products and services, sales could increase, resulting in stronger corporate profitability, an increased tax base for local and state communities, and the ability to increase corporate philanthropic donations (Du, Bhattacharya, & Sen, 2015; Galpin, Whittington, & Bell, 2015; Peltokorpi, Allen, & Froese, 2015).

### **Nature of the Study**

To study problems and collect data, researchers use one of three methods of analysis: quantitative, qualitative, and mixed methods (Venkatesh, Brown, & Bala, 2013; Wohlin & Aurum, 2015). I concluded that a quantitative method was the most



appropriate method for this study. Researchers who use a quantitative method can explain and predict phenomenon by using an outsider approach to data collection and analysis, which is not possible with a qualitative method (Clement et al., 2015).

Additionally, with a quantitative method, researchers can generalize findings to a broader population by using inferential statistics, which they cannot do when using a qualitative method (Rittichainuwat & Rattanaphinanchai, 2015). The purpose of this study was to examine the extent to which two variables predict one criterion variable. I wanted to generalize the results obtained from the study sample to the study population. Therefore, I concluded that a quantitative method was more appropriate than a qualitative one.

Mixed methods involve both a qualitative and quantitative component (see Venkatesh et al., 2013); because I concluded that use of a quantitative method would allow me to answer my research question, I opted not to use a mixed methods approach.

Three quantitative designs researchers use are experimental, quasiexperimental, and correlational (Schweizer & Furley, 2016). With an experimental design, researchers control or randomly assign participants to levels of the independent variable and examine cause and effect relationships between variables (Schweizer & Furley, 2016). Traditional random selection does not always occur with use of a quasiexperimental design; rather, researchers might assign participants to groups a priori based on an existing stratification variable (Schweizer & Furley, 2016). With a correlational design, researchers seek to use and analyze whether relationships exist between variables (Venkatesh et al., 2013). The objective in conducting this study was to examine the extent to which employee job satisfaction and job embeddedness predict employee turnover intention. I did not seek to

control variables or randomly assign participants; therefore, a correlational design was appropriate.

### **Research Question**

To what extent does a linear combination of employee job satisfaction and job embeddedness predict employee turnover intentions in the manufacturing industry in the Southeastern United States?

### **Hypotheses**

Null Hypothesis ( $H_0$ ): A linear combination of employee job satisfaction and job embeddedness is not a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States.

Alternative Hypothesis ( $H_A$ ): A linear combination of employee job satisfaction and job embeddedness is a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States.

### **Theoretical Framework**

I used two theories as the foundation for this study: Herzberg, Mauser, and Snyderman's (1959) two-factor theory of work motivation and Mitchell, Holtom, Lee, Sablinski, and Erez's (2001) job embeddedness theory. Herzberg et al. used the two-factor theory of work motivation to challenge basic assumptions regarding how the factors affect satisfaction or dissatisfaction in the workplace. According to Herzberg et al., employee satisfaction and dissatisfaction depend on exposure to certain workplace factors. The presence of some factors can lead to employee satisfaction, and the presence of others may result in dissatisfaction (Herzberg et al., 1959; Yusof, 2016). Mitchell et

al. introduced job embeddedness theory as an alternative to more traditional theories. In formulating the theory, Mitchell et al. noted that there are on-the-job and off-the-job link, fit, and sacrifice factors associated with employee retention. According to Herzberg et al., job satisfaction should predict employee turnover intentions. Similarly, according to Mitchell et al., job embeddedness should predict employee turnover intentions. For these reasons, I concluded that these two theories would be appropriate for use in this research.

### **Operational Definitions**

*Employee engagement:* Employee engagement occurs when an employee has resilient levels of commitment and connection toward an organization and the organization's culture and values (Anitha, 2014).

*Employee retention:* Employee retention is the ability of management to increase the longevity of an employee's tenure with the organization (Vasantham & Swarnalatha, 2015).

*Employee turnover:* Employee turnover refers to an employee's decision to withdraw from an organization (Mobley, Griffeth, Hand, & Meglino, 1979).

*Employee turnover intent:* Employee turnover intent is the probability that one plans to leave an organization (Mobley et al., 1979). One can measure employee turnover intent through intent to search and intent to quit (Mobley et al., 1979).

*Human capital:* Human capital consists of resources derived from an individual's various personal characteristics, including knowledge, skills, and abilities, which are used by organizations (Prajogo & Oke, 2016).

*Job embeddedness*: Job embeddedness is how attached an employee is to an organization (Choi & Kim, 2015). Researchers measure this attachment in terms of three dimensions: fit, links, and sacrifice (Choi & Kim, 2015).

*Job satisfaction*: Job satisfaction is a description of the extent to which an individual is content or at ease with his or her job (Ali, 2016).

*Organizational commitment*: Organizational commitment refers to a worker's empathy with his or her place of employment (Fu & Deshpande, 2014).

### **Assumptions, Limitations, and Delimitations**

#### **Assumptions**

Research assumptions refer to the predispositions held by a researcher before conducting a study (Kirkwood & Price, 2013). This study included two assumptions: that participants would provide only objective and truthful answers to the survey questions and that I would remain neutral and objective when analyzing collected data. To help ensure that participants would present only objective and truthful responses to the posed questions, I included a statement before the first question on the questionnaire in which I emphasized the importance of answering all questions truthfully and to the best of the participant's ability. Additionally, contributors included only volunteers, and they were told that they could withdraw from participation in the questionnaire at any time during the process. Regarding the last assumption that I would remain neutral and objective when analyzing collected data, I had no goals or preconceived notions regarding the outcome of the analyses. I made an effort to present the discoveries arising from the analysis of data in a neutral manner.

## **Limitations**

As Henderson (2016) suggested, limitations are potential weaknesses in a study. One limitation of this study was the lack of generalizability of the results. As Kirkwood and Price (2013) noted, generalizability occurs when a researcher can justify that findings extend to other situations and contexts. Because of the narrow regional and industry focus, and the fact some individuals in the targeted population might have had limited Internet access, I was not able to generalize the findings to a broader population.

Another limitation included the self-reporting status of the participants. Turnover intent is a sensitive topic for many employees (Merianos, King, & Vidourek, 2013). If participants had concerns regarding their supervisor's discovery of their intent to leave their organizations, honestly answering related questions might have proven difficult, which would have affected the accuracy of the results for this study. To address this limitation, the consent form included information regarding the anonymity of the survey results. In addition, I was the only researcher who analyzed the data collected in this study. However, other scholars reviewed the performed analysis to confirm the results. Therefore, there was a system in place to prevent bias arising from this limitation.

A final limitation was related to the use of a correlation design. Merianos et al. (2013) noted that researchers and others often infer causation when analyzing correlational data. However, proving that one variable causes another to occur involves many steps, of which confirming correlation is only one aspect (Bleske-Rechek, Morrison, & Heidtke, 2015). Therefore, I made a conscious effort not to infer causation when interpreting my results.

## **Delimitations**

Chinchilla-Rodriguez, Miguel, and De Moya-Anegon (2015) defined delimitations as the scope or choices made by the researcher for a study. This study included three delimitations. First, the research problem selected was a delimitation. Various problems exist in organizations that could affect profitability, performance, and societal contributions; however, I chose to focus on examining the correlation between employee job satisfaction, job embeddedness, and turnover intent as this was an underresearched area, according to my review of the literature. Second, only employees at manufacturers in the Southeastern United States participated in the study. Manufacturers exist globally; however, I chose to concentrate solely on manufacturing employees in the U.S. Southeast. Third, individuals received the surveys electronically from and returned them to SurveyMonkey. I did not have direct contact with any of the participants, which, I believe, helped prevent bias in terms of data collection and analysis.

## **Significance of the Study**

Current research regarding predicting employee turnover intent is significant. Unlike many of the previous studies conducted on this criterion, manufacturing managers could use such results to improve retention rates with a diverse range of employees. This study involved collecting data from manufacturing industry employees in the Southeastern United States, a region which accounts for more than 19% of U.S. manufacturing employment (Scott, 2015; United States Environmental Protection Agency, 2016). Detailed data collected from manufacturing employees in this region could offer applicable information to potentially help increase employee job satisfaction,

job embeddedness, and reduce employee turnover intentions, which ultimately could positively affect organizational retention rates. Ultimately, improved employee retention remains significant to both the business and communities.

### **Contribution to Business Practice**

Employee retention remains significant to businesses' and companies' management teams. Employee turnover costs companies, both directly and indirectly, through hiring costs, declining profits, and overall lower employee morale (Terera & Ngirande, 2014). Total employee turnover expenses can cost businesses more than 100% of a single employee's annual wages or salary, depending on the level of the job left unoccupied (Upadhayay & Vrat, 2016). Additionally, Vasquez (2014) noted that employee turnover costs companies time in production and training, and higher employee retention is related to improved job satisfaction and customer service. Scholars also have noted that employee retention remains essential because of the potential loss of valuable skills, knowledge, and abilities of key personnel within a company (Peltokorpi et al., 2015).

### **Implications for Social Change**

While employee retention remains important to business leaders for the financial stability of the company and sustainability, the significance of retention extends beyond internal benefits (Du et al., 2015). Vasquez (2014) noted a ripple effect could occur with employee turnover, leading to high unemployment and ultimately a global economic slowdown. A company's success and ability to decrease turnover can affect the company's reputation and ability to influence all stakeholders positively (Du et al., 2015).

These stakeholders include the customers served. However, the authors also include the community in which the company operates as stakeholders.

Du et al. (2015) suggested that a firm's social responsibility could include such activities as philanthropy, cause-related marketing, and even community outreach. However, without financial success and corporate sustainability, all stakeholders could realize negative effects of a company's weakness through its limited ability to help instigate or contribute to social change or progress. These negative effects might include providing less local, state, and federal tax money for many needed government programs. Additionally, retention of employees might lead to the production of better and more innovative products or services that can help improve the lifestyles of the public.

Galpin et al. (2015) also suggested that a company's ability to retain employees substantially supports the company's ability to remain sustainable. Additionally, Galpin et al. suggested a company's human resource strategy remains the center of its ability to achieve sustainability. Sustainability remains important because it is essential to a company's ability to contribute positively to society. Z. Chen and Cao (2016) noted that corporate philanthropy and corporate goodwill citizenship generally do not occur if a business is struggling to fulfill its economic, legal, and ethical responsibilities. Therefore, for a company to benefit society, sustainability remains critical. Terera and Ngirande (2014) noted that employee attraction and retention are the biggest challenges to human capital management. Therefore, company leaders who retain employees experience stronger organizational profits, remain more sustainable, and have the



potential to realize a more positive impact on society (Du et al., 2015; Galpin et al., 2015; Peltokorpi et al., 2015; Terera & Ngirande, 2014).

### **A Review of the Professional and Academic Literature**

This literature review contains a critical analysis and synthesis of literature discovered while researching predictors of employee turnover intent. According to Rowe (2014), researchers should thoroughly review other scholars' works on a topic before beginning data collection and analysis; this is to ensure they are contributing something new with their research rather than merely replicating prior studies. This was a key aim of mine in completing this literature review.

Because of the important role of the theoretical foundation in a study, I will begin this section by providing an overview of Herzberg et al.'s (1959) two-factor theory of work motivation along with other theories considered for this study. Following this overview, further justification appears regarding the need for this research through various sources and topics related to employee job satisfaction, employee job embeddedness, and employee turnover intent. This section will also include an overview of the importance of organizational commitment and human capital and the geographic location selected for the study.

The search process included the review of 122 peer-reviewed articles, five books, and two non-peer-reviewed articles. The methods used for information discovery included bibliographic mining, reviewing dissertations and doctoral studies, and searching keyword phrases in Internet search engines and in various databases. Databases used for this review process included EBSCOhost, ProQuest, SAGE Journals,

and Emerald Insight. Additionally, Google Scholar was searched to identify articles and references that pertain to this topic. Furthermore, I utilized Boolean for keyword searches for terms including *employee turnover intentions*, *employee turnover*, *employee retention*, *job satisfaction*, and *job embeddedness* and to review antecedents to *employee turnover*, *job satisfaction*, and *job embeddedness*. (See Table 1 for a summary of sources I included in the literature review.)

Table 1

*Synopsis of Sources in the Literature Review*

Reference type	Less than 5 years	Greater than 5 years	Total	Cumulative %
Peer-reviewed journals	115	7	122	94.6%
Seminal and contemporary books	0	5	5	3.9%
Dissertations	0	0	0	0
Websites and others	2	0	2	1.5%
Total sources	117	12	129	
Percentage of total	90.7%	9.3%	100%	

### **Application to the Applied Business Problem**

A researcher should contribute to the understanding and knowledge of the area of study, substantiate problems within the research, address the theoretical foundation of the study, and justify the contribution of the study through a literature review (Pare, Trudel, Jaana, & Kitsiou, 2015). This literature review contains information from existing studies and research to substantiate the importance of managers predicting employee turnover intent. The specific purpose of this study was to discover to what extent a linear combination of employee job satisfaction and job embeddedness predict employee turnover intention, specifically in the manufacturing industry in the Southeastern United

States. Therefore, the null hypothesis was that a linear combination of employee job satisfaction and job embeddedness is not a significant predictor of employee turnover intentions in the manufacturing industry in the United States. The alternative hypothesis was that a linear combination of employee job satisfaction and job embeddedness is a significant predictor of employee turnover intention in the manufacturing industry in the Southeastern United States.

### **Theories Related to Employee Job Satisfaction, Job Embeddedness, and Turnover Intent**

Through the initial phases of this study, I reviewed numerous theories that are relevant to employee job satisfaction, job embeddedness, and employee turnover intent. The theories I considered most relevant for this study were Herzberg's motivation-hygiene theory (Herzberg et al., 1959), human capital theory (Becker, 1964), leader-member exchange theory (Graen, 1976), the hierarchy of needs (Maslow, 1943), and social exchange theory (Kelley & Thibaut, 1978). This review includes an explanation for each of these theories. Certain aspects of each of these theories was applicable to this study; however, I concluded that Herzberg et al.'s (1959) theory was the most relevant due to this scholar's explanation and demonstration of how managers can help increase satisfaction and motivate employees to grow with their companies, embed within their jobs, and remain with their current employers.

**Human capital theory.** Researchers have researched and addressed issues related to human capital since early Chinese and Greek civilizations began realizing the importance of human intelligence (Fagan & Ployhart, 2015). While various theories exist

concerning human capital, G. S. Becker's (1964) economic human capital theory is one that concentrates on intellect at the individual level (Fagan & Ployhart, 2015). Rauch and Rijdsdijk (2013) noted that the foundation premise of human capital theory is that employees receive compensation for their investments in knowledge and skills. While human knowledge remains the base of this theory, scholars noted that human capital theory continually evolves as research occurs on this topic (see Wright, Coff, & Moliterno, 2014). Wright et al. (2014) noted that today's managers concentrate on strategically managing human resources. While this approach affects individuals, as noted by G. S. Becker, today's company managers often strategize ways to strengthen and maintain their entire workforce.

**Leader-member exchange theory.** The leader-member exchange theory (LMX) is based on the two-way relationship between employees and their managers (Yoon & Bono, 2016). Managers who use LMX should consider their individual personality traits along with those of current and prospective employees (Yoon & Bono, 2016). Additionally, scholars recommend that hiring managers who use LMX should not only consider the innovative behavior needed interdepartmentally but the individual characteristics (e.g., agreeability, extrovertness, and power orientation) of potential employees (Wang, Fang, Qureshi, & Janssen, 2015; Yoon & Bono, 2016). After completing their hires, leaders using LMX should initially establish role development and then develop close relationships with a few employees in the group, according to Sheer (2015). Close employees remain the most trusted followers and often receive the most responsibilities and communication with the leader, while other employees often remain

outside of the main group and experience weaker exchanges with the leader (Sheer, 2015). Benefits for employees might include stronger job satisfaction and job embeddedness due to increased communication with a team's manager and the holding of more job responsibilities. As Karatepe (2016) suggested, job embeddedness strengthens as an employee's links to the organization, coworkers, and job increase. Improved communication and increased job responsibilities are, therefore, two characteristics that might enhance one's link to an organization.

**Maslow's theory of the hierarchy of needs.** Maslow (1943) introduced concepts that he later contributed to his hierarchy of needs theory. There are five levels to Maslow's theory: (a) basic or physiological needs, (b) safety and security needs, (c) belongingness and love needs, (d) esteem needs, and (e) self-actualization needs, which represent the ultimate level of human motivation (Maslow, 1943). According to Maslow, one should fulfill the lower needs of physiological, safety, and belongingness before reaching the higher-level needs of self-esteem and self-actualization (Carland, Carland, & Carland, 2015). However, scholars have suggested reaching self-actualization remains an important factor and contributor to motivation (Ngai, Cheung, & Yuan, 2016), which is why this level in Maslow's theory is important for employees to attain.

**Social exchange theory.** The premise of social exchange theory (SET) is that mutual benefits occur for both parties involved in a relationship (Camgoz & Karapinar, 2016). Managers utilize SET to explain individual behaviors in various settings (Yan, Wang, Chen, & Zhang, 2016). Dysvik, Buch, and Kuvaas (2015) noted that when managers use SET, it is crucial that knowledge sharing remains equal for both the leader

and the employee if trust is to ensue. Scholars noted that once the costs of a relationship become larger than the benefits, one party could sever the relationship (Jiang & Kim, 2015). For employees, once they feel they are giving more to the manager or company than they are receiving, their turnover intent could increase.

**Relevant theory: Herzberg's motivation-hygiene theory.** When Herzberg et al. (1959) introduced the Motivation-Hygiene theory, they suggested that once basic hygiene needs occur for workers, they search for job satisfaction. What these scholars considered hygiene needs included the basics of salary, safe work conditions, and relationships with peers, subordinates, and supervisors (Denton & Maatgi, 2016). What Herzberg discovered, once these basic employment needs occurred, is that substantial motivation should occur through genuine job satisfaction, or employees become more likely to experience discontentment and dissatisfaction (Denton & Maatgi, 2016). Ali (2016) reiterated Herzberg's thoughts and stated that hygiene factors help prevent dissatisfaction, but motivational factors help keep employees satisfied. Some of the current factors that can contribute to job satisfaction include achievement, personal and professional development, job growth, the feeling of fulfillment in the job performed, personal achievement, and recognition (Belias & Koustelios, 2014; Denton & Maatgi, 2016).

Belias and Koustelios (2014) noted the significance of Herzberg's work included the global use of both intrinsic and extrinsic motivational factors affecting job satisfaction. Therefore, these researchers noted that managers might use Herzberg's theory to understand how to improve job satisfaction and weaken factors that might

influence job dissatisfaction. Other scholars noted that Herzberg believed during times when employees lacked motivation, their intent to leave increased as they began to perform job searches and plan their exit strategy from the current employer (Derby-Davis, 2014).

Denton and Maatgi (2016) utilized the concepts developed by Herzberg et al. (1959) in their recommendations for creating employee support for the implementation of ISP 9000 standards within small and medium-sized advanced engineering and manufacturing enterprises. These scholars suggested that internal motivation could improve employee results substantially over external pressure (Denton & Maatgi, 2016). Additionally, Denton and Maatgi noted that management, administrative leadership, and the work environment impact success in any manufacturing facility, which reflects the importance of the strategies managers utilize to enhance job satisfaction, not only for organizational profits but also for employee retention.

### **Turnover**

Turnover negatively affects organizations (Hayward et al., 2016; Long, Azami, Kowang, & Fei, 2016). Scholars noted that turnover often costs organizations both directly and indirectly (Harhara, Singh, & Hussain, 2015). Direct expenses might include recruiting and training costs, reduced productivity, and additional compensation for the new employee (Harhara et al., 2015; Hayward et al., 2016; Long et al., 2016). Indirect costs could include the loss of tacit knowledge, a decline in employee motivation, and weakening of an organization's reputation if turnover frequently occurs (Harhara et al., 2015; Long et al., 2016).

Likewise, the impact of high turnover can negatively affect society as well (Vasquez, 2014). Vasquez (2014) noted significant turnover in organizations leads to slower economic growth as the unemployment rate increases in communities, which could influence tax collections and social programs. Breuer (2015) noted suicide rates in developed countries increase as unemployment rates rise. Additionally, in a longitudinal study, conducted in Greece by Drydakis (2015), the researcher noted that both physical and mental health declines when unemployment rates rise. Each of these factors negatively affects societies. Therefore, turnover remains an issue that could distress more than a single organization; left unchecked, exorbitant turnover could also hinder an economy and society.

### **Turnover Intent**

Turnover intent is the probability that an employee will leave an organization (Mobley et al., 1979). Researchers measure turnover intent using specific time intervals, and they regard it as a choice concerning an individual leaving a current employer (Wong, Wong, & Wong, 2015). Researchers suggested that positive turnover intentions remain correlated to actual voluntary turnover (Nei, Snyder, & Litwiller, 2015), which makes this topic an important one for an organization's managers to consider and to prevent since high turnover negatively affects businesses (Hayward et al., 2016). Scholars noted various factors that might contribute to an individual's increased consideration to leave an organization, including empowerment (Hechanova, 2013), job satisfaction (Yu & Kang, 2016), and job embeddedness (Ko & Kim, 2016). Additionally,



academics noted that prolonged job strain could contribute to increased turnover intentions (Wong & Laschinger, 2015).

Lu and Gursoy (2016) suggested generational differences also might cause differences in how employees value their jobs and variations of worker burnout, leading to higher turnover intent. These researchers noted there are three generational groups dominating the current workforce: baby boomers, Generation X, and millennials. Rani and Samuel (2016) suggested when managers understand generational differences in the workforce, they can implement better policies that meet the needs of each generation. Since the baby boomer generation controls many organizations, scholars suggested a mismatch could occur between the values of managers and millennial workers (Rani & Samuel, 2016). Additionally, Lyons and Kuron (2014) noted that understanding millennials' needs and differences in the workforce improves their productivity and innovation, which often strengthens job satisfaction and decreases turnover intent.

**Measuring turnover intent.** The opposite of intent to stay is turnover intent. Researchers measure turnover intent using various instruments. Chenevert, Jourdain, and Vandenberghe (2016) utilized two three-item scales created by Meyer, Allen, and Smith (1993) to measure turnover in their 3-year prospective study. These scholars utilized a 5-point Likert-type scale ranging from 1 (completely disagree) to 5 (completely agree) to measure participant results. Jang et al. (2015) measured turnover intent with only one question regarding whether they intended to leave their current job within the next year. These researchers also utilized a 3-point Likert-type scale (0 = not at all likely, 1 = somewhat likely, and 2 = very likely). The questions utilized by Jang et al. remain

identical to the questions developed by Mobley, Horner, and Hollingsworth (1978).

However, the Likert-type scale utilized by Mobley et al. consisted of five points ranging from 1 (strongly disagree) to 5 (strongly agree). Additionally, scholars based the validity and reliability of the Mobley et al. instrument on various testing performed (Chen & Wen, 2016; Islam, Khan, Ahmad, & Ahmed, 2013; Li & Ahlstrom, 2016).

Y. Wong et al. (2015) utilized a three-item measurement from Camman, Fichman, Jenkins, and Klesh (1979) for their study on employees of Chinese joint ventures. These scholars also utilized a Likert-type scale format. However, these researchers used a 5-point scale ranging from 1 (extremely disagree) to 5 (extremely agree). The questions from Camman et al. included information regarding whether the participant often thought about quitting, whether the participant would look for a new job within the next year, and whether the participant would choose to work for the current organization again if given the choice.

### **Antecedents to Turnover**

Employee turnover can occur through dismissals, downsizing, and voluntary departure from an organization (Holtom & Burch, 2016). The employee turnover type most concerning to businesses is that of voluntary departure since these employees leave of their own free will and outside of the direct control of organizational leaders (Holtom & Burch, 2016). Hancock et al. (2013) suggested employee turnover can cost companies monetarily and can affect organizational operations, including human and social capital advancement. These scholars suggested the loss associated with turnover likely outweighs any functional effects that a loss of employees could bring, including the

elimination of groupthink (Hancock et al., 2013). This information helps further prove that managerial strategies to improve retention should occur. These antecedents to employee turnover include job satisfaction, job embeddedness, job engagement, intent to stay, and employee retention (Ali, 2016; Chhabra, 2015; Wai & Brubaker, 2014).

**Job satisfaction.** Khalib et al. (2015) defined job satisfaction as the extent to which employees like or dislike their jobs. This human resource concept of job satisfaction remains important to organizations. Scholars noted that job satisfaction remains central to successful human resource management (Hauff, Richter, & Tressin, 2015). Additionally, researchers suggested that job satisfaction remains complex due to cultural variances in a globalized economy and due to differences in individual needs and jobs (Hauff et al., 2015; Pan, 2015). Ali (2016) noted the importance of job satisfaction among employees in organizations, stating that people remain a core asset to any business since they are the ones who ensure production occurs. This researcher also stated that executives and managers should make and enforce policies that will enhance employee satisfaction to avoid negative consequences from dissatisfaction, including organizational performance, lower productivity, and employee turnover (Ali, 2016). W. Huang and Su (2016) suggested that one symptom of an employee's intent to leave a company might include low job satisfaction. Therefore, because of the importance of job satisfaction, managers should work toward increasing employee satisfaction to help improve efficiency, production, and employee retention.

Job satisfaction remains a complex topic due to national and cultural differences and the various components it encompasses and affects. Pan (2015), for instance, noted

job satisfaction remains subjective and person-specific. Therefore, what creates satisfaction for one employee might not meet the needs of another employee.

Additionally, Pan suggested job satisfaction includes task, environmental, and relational factors. As an example of the importance of work relationships, De Beer, Tims, and Bakker (2016) suggested increasing the quality of relationship exchanges between the supervisor and the employee to help strengthen job satisfaction and increase work engagement, which could contribute positively to both the employee and the organization.

The contributions to job satisfaction and the results of employees liking their jobs remain broad. Umamaheswari and Krishnan (2015) suggested employee satisfaction could contribute to increased organizational commitment, reduced intent to quit, and ultimately increased retention rates. Various issues contribute to each of these factors. However, the relationships between each of these factors remain important.

Ali (2016) also noted that employee motivation and job satisfaction remain different, yet they are related. As Ali suggested, job design, including the empowerment of employees through organizational policies, could help improve satisfaction. Motivation, however, remains more of an individual or intrinsic trait that cannot necessarily occur through organizational strategies or policies (Ali, 2016). Managers can improve strategies to help strengthen employee job satisfaction and better motivate workers (De Beer et al., 2016; Huang & Su, 2016; Pan, 2015).

***Measuring job satisfaction.*** Concepts encompassing job satisfaction began in 1935; however, Herzberg et al. (1959) continued research on this topic and made

significant progress with his two-factor theory (Hee & Abidin, 2016). Researchers continue to study this significant concept, noting the factors that affect job satisfaction do not remain constant (O'Keefe, Corry, & Moser, 2015). For instance, in current research, scholars have numerous choices regarding the instruments used to measure participants' job satisfaction levels (Saane, Sluiter, Verbeek, & Frings, 2003). Saane et al. (2003) noted there are three categories of instruments one could choose from when conducting job satisfaction research: multidimensional instruments for jobs in general, multidimensional instruments for specific jobs, and global multi-item instruments.

Within their research, Saane et al. (2003) noted the significant quality and validity of seven different instruments. However, researchers designed most of the surveys noted by these scholars for assessing information about employees in the medical field (Saane et al., 2003). Two of these instruments, the Andrew and Withey job satisfaction questionnaire (JSQ) and the job satisfaction survey (JSS), remain relevant to various jobs in different sectors. With the JSQ survey, participants answer five questions using a 7-point Likert-type scale regarding their feelings toward their current job, co-workers, and work (Harzer & Ruch, 2013). With the JSS, researchers utilize 36 items in nine subscales regarding various areas, including pay, co-workers, benefits, and nature of work (Top, Akdere, & Tarcan, 2015). While these questionnaires remain similar based on the questions they contain, the JSS survey takes more time to complete based on the increased number of questions and the expansion of the topics covered.

**Job embeddedness.** Scholars have noted that job embeddedness might indirectly help increase retention and reduce organizational turnover costs (Marasi, Cox, & Bennett,

2016). To help researchers study job embeddedness, Nicholas, Mensah, and Owusu (2016) suggested three kinds of attachments or dimensions that might entice an individual to remain in an organization or community: fits, links, and sacrifice. Various researchers used these dimensions in their research (Chhabra, 2015; Schmitt, Hartog, & Belschak, 2015; Word & Park, 2015).

Word and Park (2015) noted that organizational and personal job fit remain essential to a company's success. These scholars defined person-job fit as when the individual is right and suitable for the job based on personal values and abilities (Word & Park, 2015). Chhabra (2015) suggested that personal job fit enhances a worker's socialization, satisfaction, and commitment in a job. Additionally, the scholar noted that personal job fit decreases discontentment and intent to leave an organization (Chhabra, 2015). Likewise, Schmitt et al. (2015) stated employees with higher perceived fit between the demands of their job and their skill and abilities experience less exhaustion than employees with abilities misfit to the job.

Person-organization fit also remains important to a company. Word and Park (2015) defined person-organization fit as the congruence between the employee's values and the mission of the organization for which he or she works. Anaza (2015) noted that person-organization fit positively correlates with employee-customer identification, as employees feel pride when they identify with their company and they, therefore, remain dedicated to their job and the organization. Other scholars noted organizations might use person-organization fit as an instrument in reaching their targets, suggesting employees

who fit best within a company have stronger job satisfaction and lower turnover intent than workers with lower person-organization fit (Findik, Ogut, & Cagliyan, 2013).

Two other dimensions important to job embeddedness include links and sacrifice. Robinson et al. (2014) studied the relationship between embeddedness, organizational commitment, and intent to leave among hospitality workers and discovered positive relationships between organizational sacrifice and community links with organizational commitment. Likewise, Karatepe (2016) suggested job embeddedness strengthens as an employee's links to the organization, co-workers, and the job increase. This scholar also noted that stronger co-worker and family support while in a job decreases the chance of sacrificing quality relationships the employee has (Karatepe, 2016).

In addition, Charlier, Guay, and Zimmerman (2016) suggested that job embeddedness helps explain why employees fit into their job, organization, and community, as well as the type of sacrifice that must occur to break the *fit* link and move to another job possibly in a different organization or city. Likewise, other scholars noted a strong organization fit, which includes the compatibility of an individual to specific job settings and the work culture and environment, helps strengthen the employee's ties to a company (Nicholas et al., 2016). While researchers noted that job embeddedness could contain some negative organizational outcomes in certain circumstances, some suggested it remains positively associated with employee retention (Charlier et al., 2016).

Therefore, it remained a consideration in this study.

***Measuring job embeddedness.*** T. Park and Shaw (2013) noted one standard deviation increase in turnover intent resulted in a 40% decrease in productivity and a 26%

decline in corporate finances. Since researchers suggested job embeddedness remains a contributing factor to turnover intent (Kiazad, Holtom, Hom, & Newman, 2015), measuring this predictor variable is important due to the significant loss organizations could experience if turnover increases. In their research, Heritage et al. (2016) mentioned two instruments scholars might consider when conducting studies that include job embeddedness: Clinton, Knight, and Guest's (2012) dual subscale job embeddedness measure and Crossley, Bennett, Jex, and Burnfield's (2007) global measurement of job embeddedness.

Crossley et al.'s (2007) global job embeddedness measurement includes 7 questions related to an employee's organizational attachment. Scholars noted this measurement excludes attachments not related to the employee's job (Heritage et al., 2016). Clinton et al. (2012), however, created a dual subscale job embeddedness questionnaire for use in measuring employee job embeddedness to the job and within the community. For workplace related studies where community information is not required, researchers utilized Crossley et al.'s study and collected information that resulted in significant and valid results (Heritage et al., 2016; Treuren & Frankish, 2014).

**Employee engagement.** Another antecedent to employee turnover noted by scholars is employee job engagement. Employee engagement occurs when the employee has significant levels of commitment and connection toward the organization and its culture (Anitha, 2014). Anitha (2014) suggested engaged employees excel in their jobs because they do more than the minimum required by management. Tangthong, Trimestoontorn, and Rojniruntikul (2014) conducted research in Thailand's foreign direct



investment (FDI) manufacturing industry, and they suggested that rewards, compensation, training, and development contribute to employee engagement. Other academics suggested a lack of engagement not only contributes to turnover, but it also hinders the organization's mission, which can contribute to organizational weakness (Wai & Brubaker, 2014). Tangthong et al. (2014) recommended managers concentrate on strategies that might enhance engagement activities that could lead to stronger retention rates.

***Measuring employee engagement.*** Bailey, Madden, Alfes, and Fletcher (2017) noted employee engagement is a significant concept in management. Some scholars suggested employee engagement remains correlated to employee job performance (Carter, Nesbit, Badham, Parker, & Sung, 2016), while other researchers proposed a link between employee engagement and the performance of organizations (Bailey et al., 2017). Likewise, Jung and Yoon (2016) stated employee engagement positively affects an individual's organization commitment. Even though this human resource concept can positively affect an organization, researchers suggested engagement is difficult to measure with certainty (Bailey et al., 2017).

While scholars have noted the difficulty in measuring engagement (Bailey et al., 2017), researchers continue to study this important concept. There are various measurements available for examiner use when conducting specific employee engagement studies. One measurement of engagement used by many researchers is an abbreviated version of the Utrecht Work Engagement Scale called the UWES-9 (Carter et al., 2016; Harju, Hakanen, & Schaufeli, 2016; Schaufeli & Bakker, 2006; Siller,

Solansky, Clavelle, & Fitzpatrick, 2016). Researchers use the UWES-9 to measure employee engagement based on vigor, dedication, and absorption utilizing a 7-point Likert-type scale (Siller et al., 2016). Additionally, scholars confirmed the validity of the UWES-9, and they noted the internal consistency and test-retest reliability of the three subscales utilized within the measurement (Harju et al., 2016; Schaufeli & Bakker, 2006).

Although many researchers utilized UWES-9 as a measurement of engagement in their previous studies, other scales remain accessible for measuring this concept. The job engagement scale is another scale widely used to measure engagement (Nimon, Shuck, & Zigarmi, 2015; Shuck, Adelson, & Reio, 2016). The job engagement scale includes 6 separate measurements for three factors: cognitive, emotional, and physical engagement (Shuck et al., 2016). Based on scholars' research, internal consistency and reliability exist for this measurement as  $\alpha = .94$  was the lowest reported internal consistency reliability for the subscales and the combined reliability scale was  $\alpha = .97$  (Shuck, Zigarmi, & Owen, 2015).

Another scale used to measure engagement is the ISA engagement scale (Manas-Rodriguez, Alcaraz-Pardo, Pecino-Medina, & Limbert, 2016; Shuck et al., 2016). This scale, like the UWES-9 and the job engagement scale, measures three different engagement factors. However, the concepts measured in the ISA remain more psychological in nature and less focused on the meaningfulness of employee work (Morokane, Chiba, & Kleyn, 2016). The three employee concepts studied using the ISA engagement scale include intellectual, social, and affective engagement (Shuck et al., 2016).

**Intent to stay.** Based on research, managerial practices and organizational commitment contribute to employees' intentions to remain at a company (Jayasingam, Govindasamy, & Singh, 2016; Madden, Mathias, & Madden, 2015; Zopiatis, Constanti, & Theocharous, 2014). In previous studies, scholars noted employees with high affective organizational commitment have stronger intentions of remaining with their current employer (Jayasingam et al., 2016). Additionally, Madden et al. (2015) discovered managers could increase organizational commitment, and ultimately individuals' intents to stay at their current job, through creating a sense of support for employees.

Likewise, Zopiatis et al. (2014) suggested emotional connections between the employees and the organization lead to a sense of belonging and an increase in the worker's intent to stay. Since losing knowledgeable workers could produce significant costs for the organization (Jayasingam et al., 2016), managers might concentrate on implementing strategies that strengthen organizational commitment and improve employee emotional connections to the job (Madden et al., 2015; Zopiatis et al., 2014). Through such strategies, worker intent to stay should increase based on prior research (Jayasingam et al., 2016; Madden et al., 2015; Zopiatis et al., 2014).

**Measuring intent to stay.** Researchers measure intent to stay in a variety of ways, from a simple one-question response to a more complex questionnaire (AbuAlRub, El-Jardali, Jamal, & Al-Rub, 2016; Ferreira, Proenca, & Proenca, 2015; Ramamoorthy, Flood, Kulkarni, & Gupta, 2014). When measuring the intent of Jordanian nurses working in underserved areas, AbuAlRub et al. (2016) only used one question rated on a 4-point Likert-type scale. The question encompassed whether the nurses planned to

remain at their current job for the foreseeable future, and the responses included four potential answers ranging from strongly disagree to strongly agree. Similarly, Ramamoorthy et al. (2014) utilized only one question measured using a 5-point Likert-type scale for employees in various businesses in Bulgaria and India. Another group of scholars utilized a slightly more complicated measurement for their research (Ferreira et al., 2015). M. R. Ferreira et al. (2015) measured intent to stay among hospital volunteers by combining four questions from various researchers' surveys and utilizing a 7-point Likert-type scale.

**Employee retention.** Employees remain essential to organizational success (Ali, 2016; Gallus & Frey, 2016; Umamaheswari & Krishnan, 2015). Therefore, it is important to retain qualified and knowledgeable employees. Academics defined employee retention as the strategies used by management to retain employees for longer periods of time (Vasantham & Swarnalatha, 2015).

Cloutier, Felusiak, Hill, and Pemberton-Jones (2015) suggested employee retention could affect organizations' economic goals, which makes employee retention strategies critical to business operations. Other scholars noted the importance of a quality workforce in manufacturing to maintain production and equipment and to operate machinery (Umamaheswari & Krishnan, 2015). The consensus of these researchers is that employee retention is important for the sustainability and success of organizations (Cloutier et al., 2015; Umamaheswari & Krishnan, 2015; Vasantham & Swarnalatha, 2015).

Cloutier et al. (2015) presented several strategies managers might consider to increase employee retention. These strategies included increasing positive communication between the organization and employees, promoting diversity and transparency within the workforce, and recruiting the right people for the organization. Brannan (2015) contributed to this topic by noting the importance of selecting the right people for the job and conducting appropriate training. However, this researcher also mentioned the importance of intentional, consistent, and systematic management in retaining employees (Brannon, 2015). Gallus and Frey (2016) added significance to this topic with the suggestion of utilizing awards as one method to motivate employees and increase retention. Therefore, utilizing the strategies presented by these researchers, managers have numerous options from which to choose to help retain employees (Brannon, 2015; Cloutier et al., 2015; Gallus & Frey, 2016).

In the manufacturing industry, scholars noted that hiring qualified, educated employees benefits the company and provides a competitive advantage (Tangthong et al., 2015). However, these researchers noted that a global shortage of talented and highly-skilled workers exists, making it difficult for some manufacturers to hire and retain quality employees (Tangthong et al., 2015). Umamaheswari and Krishnan (2015) suggested that younger employees have a greater need for individualism and advancement to remain at a manufacturer, which is why many companies in this industry are emphasizing employee retention when creating organizational strategies.

## **Human Capital Aspect**

Various scholars, including Ali (2016) and Gallus and Frey (2016), previously noted the importance of human capital to the success of organizations. Karatop, Kubat, and Uygun (2015) even suggested human resources are the power of an organization. When efficiently used, these researchers suggested human capital enhanced the performance of all other organizational resources (Karatop et al., 2015). Halim, Ahmad, Taghizadeh, Ramayah, and Mohamad (2015) also suggested businesses with employee consideration and focus experience improved performance over organizations with less focus on human capital. In each of these studies, academics showed the importance of human capital to organizational success (Ali, 2016; Gallus & Frey, 2016; Halim et al., 2015; Karatop et al., 2015).

Even though human capital remains important to businesses, scholars noted that several dilemmas exist when working with employees (Gambardella, Panico, & Valentini, 2013; McGuirk, Lenihan, & Hart, 2015). Gambardella et al. (2013) noted employee empowerment, autonomy, and motivation might lead to a stronger workforce. However, these researchers also noted that many organizations might not hold policies that allow employees to use these forces in daily operations (Gambardella et al., 2013). Allowing such freedoms in work might benefit companies in the way of stronger innovation or possibly longer retention. Additionally, McGuirk et al. (2015) asserted that human capital remained essential to innovation capabilities. These scholars noted the ability to innovate could provide a competitive advantage to businesses, which might help them remain sustainable in the marketplace (McGuirk et al., 2015).

Because of the importance of human capital, organizational policymakers should consider strategies to keep performing employees embedded in their jobs (McGuirk et al., 2015). Additionally, Ghosh, Rai, Chauhan, Gupta, and Singh (2015) noted the importance of increasing employee perceptions and satisfaction in retaining personnel. These scholars emphasized the connection between worker attitudes and voluntary turnover (Ghosh et al., 2015). Likewise, Ahmad, Tariq, and Hussain (2015) suggested managers concentrate on finding the right personnel to fill positions because employee turnover affects quality, productivity, and service capabilities. Therefore, increasing employee retention through positive managerial and organizational policy that helps empower, embed, and motivate employees is important for leader consideration.

Other scholars suggested changes occurring in the economy, globalization, and diversification are creating shifts in managing organizational talent (Stone & Deadrick, 2015). Tangthong et al. (2015) also noted globalization has a significant impact on economies. Many organizational leaders understand the importance of globalization and how diversification might positively contribute to business performance. Therefore, many executives and organizational leaders are re-examining business strategies to include important policies that will strengthen their human capital, increase retention, and therefore strengthen their business.

One benefit to globalization noted by scholars is an increasing talent pool of potential workers (Tangthong et al., 2015). Researchers suggested globalization creates stronger foreign direct investments in economies, helps increase social spending, and ultimately increases spending in education (Unver & Erdogan, 2015). Intellectuals

agreed that enhanced education strengthens human capital and better prepares employees for more skillful jobs (Tangthong et al., 2015; Unver & Erdogan, 2015). Likewise, other scholars suggested increased skills correlates with employee satisfaction levels, increases adaptability within a job, and improves training and development opportunities that might contribute to improved retention rates (Coetzee & Stoltz, 2015). Therefore, organizational leaders might have a greater number of qualified potential employees from which to choose when an economy embraces globalization and have better results in retaining quality workers. Based on researchers' data, increasing the quality level of employees should prove beneficial to individual organizational performance (Tangthong et al., 2015).

Additionally, researchers noted that organizational diversification and cultural diversity within an organization remain important to companies. Tate and Yang (2015) discovered through their research that diversified firms have higher productivity levels and react to changes better than focused firms. One reason noted includes the ability to transition employees to jobs more motivating or better suited to their skills (Tate & Yang, 2015). These researchers also showed improved retention rates in diversified organizations (Tate & Yang, 2015).

Cultural diversity provides benefits to organizations as well, including increased productivity, better innovation, and more focused products and services (Hofhuis, Van der Zee, & Otten, 2015). These researchers suggested having a diverse workforce helps businesses better understand minority groups and provide products and services that match the needs of all customers (Hofhuis et al., 2015). Another benefit to diversity is



higher levels of employee inclusion, which researchers suggested increases affective commitment (Ashikali & Groeneveld, 2015). Affective commitment is one form of organizational commitment that scholars linked to potential increases in job satisfaction and intent to stay (Babalola, 2016).

### **Organizational Commitment**

Managers utilize organizational commitment to provide a measurement for how well an employee identifies with the company where he or she works (Fu & Deshpande, 2014). Scholars previously noted that organizational commitment is critical to the sustainability of businesses (McCallum, Forret, & Wolff, 2014); however, as globalization expands, the importance of employee commitment continues to increase (Albdour & Altarawneh, 2014). Therefore, it remains important to discuss the types of commitment, components that contribute to commitment, and how managers might strengthen employee engagement to increase productivity and performance.

Commitment includes affective, continuance, and normative components (Albdour & Altarawneh, 2014). Affective commitment includes a psychological or emotional attachment the employee has with the organization (Lam & Liu, 2014). It is this attachment that occurs when an employee desires to remain at his or her place of employment. Therefore, managers might attribute affective commitment to the manner in which the worker identifies positively with the goals and objectives of the company on a personal level. Continuance commitment refers to what the individual feels he or she needs to do based on perceived balances between what the job provides versus what one might lose if he or she leaves the organization (Lin & Hwang, 2014). Scholars considered

normative commitment to include an employee's feeling of obligation to remain with an organization, possibly due to social norms or the feeling that one might owe the company (Zopiatis et al., 2014).

It is important that managers understand the various types of commitment. It is also important to comprehend the components that might contribute to employee organizational commitment since they potentially affect employee engagement, job satisfaction, and intent to stay (Babalola, 2016). Some of these components include employee tenure, organizational culture, and employee empowerment (Babalola, 2016; Belias & Koustelios, 2014). Scholars suggested that employees with longer tenure have lower turnover intent rates (Lambert, Griffin, Hogan, & Kelley, 2014). Likewise, by a manager creating an interactive and diverse culture with employee empowerment he or she could strengthen a workforce, which might result in improved job satisfaction and better retention rates (Belias & Koustelios, 2014). Therefore, organizational commitment remains an important variable to consider when researching job satisfaction and employee intent to stay (Belias & Koustelios, 2014; Lambert et al., 2014).

### **Drivers for Intent to Stay**

The focus of this study included the extent to which a linear combination of employee job satisfaction and job embeddedness predict employee turnover intentions in the manufacturing industry in the Southeastern United States. Because scholars suggested intent to stay is a significant predictor of turnover (Brewer, Chao, Colder, Kovner, & Chacko, 2015), it is essential to address drivers for intent to stay. These drivers include trust, job satisfaction, and embeddedness.

Scholars agree that trust remains an essential factor in intent to stay (Osman, Noordin, Daud, & Othman, 2016; Wong et al., 2015). Osman et al. (2016) noted that high levels of trust strengthen individual integrity and competence, resulting in stronger organizational reputation. Likewise, Y. Wong et al. (2015) suggested trust in management reinforces an employee's affective commitment to the organization, increasing the worker's potential to remain at the company.

Job satisfaction is another trait that positively affects intent to stay (AbuAlRub et al., 2016; Brewer et al., 2015). Researchers discovered that an organization's learning orientation is a significant predictor of job satisfaction and employee performance (Dekoulou & Trivellas, 2015). Likewise, Y. Huang et al. (2016) suggested that an employee's safety climate affects job satisfaction, while Ouyang, Sang, Li, and Peng (2015) noted the correlation between organizational justice, job insecurity, and job satisfaction. Scholars also mentioned that stress, career development, and personal gratification contribute to stronger satisfaction and ultimately to an employee's intent to stay with an employer (Yarbrough, Martin, & Alfred, 2016). Each of these scholars emphasized the importance of recognizing employees' satisfaction levels on the job with relation to their intent to stay with an organization.

Researchers noted embeddedness to both the organization of employment and the community in which the employee lives remain important predictors of intent to stay (Nicholas et al., 2016). However, employers can only influence organizational aspects of a worker's embeddedness (Choi & Kim, 2015). Kanten, Kanten, and Gurlek (2015) stated the characteristics of a learning organization affect employee performance and job

embeddedness levels. Therefore, organizations might concentrate on increasing offering opportunities for employee training and development. Job embeddedness remains beneficial, not only to the organization due to better quality output and reduced turnover, but it also benefits the employee through higher individual performance (Kanten et al., 2015). Consequently, because of the significant mutual benefit, job embeddedness is an important characteristic for managers to address.

### **Strategies for Job Retention**

Various studies have appeared addressing strategies managers might use to decrease employee turnover in the general workforce, Deery and Jago (2015) recommended employee endorsement of policies to enhance effectiveness with retention. Additionally, these scholars noted employees' needs vary depending on the organization (Deery & Jago, 2015). Therefore, managers should involve employees to help identify and install policies that will provide the best results for the workforce (Deery & Jago, 2015). Likewise, Terera and Ngirande (2014) suggested both job satisfaction and rewards could positively impact employee retention rates. As a result of this study, Terera and Ngirande (2014) recommended managers concentrate on compensation and job satisfaction to help decrease turnover rates.

Ghosh, Satyawadi, Joshi, and Shadman (2013) took a different position through their research and concluded that managers should concentrate on strategies that enhance employees' affective and normative commitment levels to the organization. Ghosh et al. suggested affective commitment corresponds to the personal attachment an employee has to an organization. Normative commitment occurs when an employee feels obligated to a

company because of the time and money management spent on their training and development (Ghosh et al., 2013). Ghosh et al. suggested managers concentrate on strategies that will allow for employee development opportunities.

### **Geographic Location for this Study**

I focused this study on manufacturing in the U.S. Southeast. Hancock et al. (2013) discovered that organization location and economy type remain correlated to the impact that employee turnover might have on performance. These scholars discovered during their research that liberal market economies (LME), like the United States, experience more negative results from employee turnover than a coordinated market economy (CME; Hancock et al., 2013). Additionally, cultures with more individualistic tendencies, which the United States possesses, might feel more effects of employee loss (Hancock et al., 2013). Likewise, these scholars suggested that certain industries, organizations with higher compensation and labor costs, and businesses with more skilled employees often experience results that are more negative during employee loss than others (Hancock et al., 2013). According to researchers, manufacturing is one such industry that depends on employees, and managers in this industry often work to increase retention rates (Umamaheswari & Krishnan, 2015).

Sims et al. (2016) conducted a study regarding job satisfaction and intention to quit in China, India, and the Philippines. In the study, researchers suggested results of such collected data are culturally dependent. Like Hancock et al. (2013), Sims et al. recommended studying such tendencies as turnover intent by country and specific regions for the most accurate results. Since U.S. manufacturing often requires skilled employees

with higher pay than other countries, one might consider it to experience more dysfunction due to higher turnover rates than certain other fields (Hancock et al., 2013). Likewise, since a significant percentage of U.S. manufacturing occurs in the Southeast, studying these variables specifically in this region might present different insight from studies conducted in other countries and regions (Sims et al., 2016).

### **Transition**

The purpose of this quantitative correlational study was to examine the relationship between employee job satisfaction, job embeddedness, and turnover intent in U.S. Southeast manufacturing firms. Section 1 includes research that shows the importance of increasing employee job satisfaction and job embeddedness to improve employee retention. Additionally, manufacturing in the U.S. Southeast remained the focus of this study. Based on scholars' research, cultures with individualistic tendencies, like that of the United States, often experience higher turnover than more collectivistic cultures (Hancock et al., 2013). Additionally, industries with higher labor costs and the need for more experienced and skilled employees, like the manufacturing industry, also should work to increase employee retention (Hancock et al., 2013; Umamaheswari & Krishnan, 2015). Since limited information is available from studies on turnover intent in the U.S. Southeast manufacturing industry, this study provides information that shows job satisfaction and job embeddedness significantly affect turnover intent within manufacturing in this region of the country.

Section 2 of this study contains a review of the process for conducting the research in the U.S. Southeast manufacturing industry utilizing ethical research methods

and data collection instruments previously tested by other researchers. Additionally, Section 2 contains information regarding the survey platform, data analysis techniques, and the process for reaching validity. Section 3 contains a report of the findings discovered during the data collection and analysis process along with directions for future research.

## Section 2: The Project

Section 2 includes information regarding the specifics of this quantitative correlational study and the method and design used to perform the research. The objective of this study was to examine to what extent employee job satisfaction and job embeddedness predict employee turnover intent in U.S. Southeast manufacturing organizations. Included in this section are the purpose statement; a discussion of my role in the research process; and a description of the participants, research method and design, population and sampling technique, and data collection instruments. An overview of ethical research considerations is also included, as is information on data analysis that was specific to this research. To conclude Section 2, I present an overview of the study's validity and provide a transition to Section 3.

### **Purpose Statement**

The purpose of this quantitative correlational study was to examine the extent to which employee job satisfaction and job embeddedness (the predictor variables) predict employee turnover intentions (the criterion variable). The targeted population was manufacturing company employees in the Southeastern United States. Focusing on this population was appropriate, I believe. Researchers have extensively studied the problem of employee turnover in other industries and locations (see Lu & Gursoy, 2016; Robinson, Kralj, Solnet, Goh, & Callen, 2014; Yahyagil, 2015) but not in Southeastern U.S. manufacturing companies, according to my review of the literature. Almost 20% of all U.S. manufacturing occurs in this region (Scott, 2015; Sims, Ruppel, & Zeidler, 2016). By retaining employees, owners and managers within this region may be able to



offer the public better products and services. With better products and services, sales could increase, resulting in stronger corporate profitability, an increased tax base for local and state communities, and the ability to increase corporate philanthropic donations (Du, Bhattacharya, & Sen, 2015; Galpin, Whittington, & Bell, 2015; Peltokorpi, Allen, & Froese, 2015).

### **Role of the Researcher**

In quantitative studies, the researcher analyzes data in empirical or analytical terms by examining quantity, intensity, or frequency (Ketokivi & Choi, 2014). Regardless of the method used for analysis, researchers should consider and apply ethical decisions throughout the entirety of their studies (Khan, 2014). In this study, I sought to conduct empirical quantitative research in an ethical manner during each step of the research process. To aid in this effort, I complied with tenets included in the Belmont Report (e.g., continually considering the beneficence and justice of all participants (see Kaufman et al., 2016). Heeding this tenet, I will store the information and data collected on a secure server for at least 5 years.

Personal bias was not a factor in this study because I have no prior personal experience working full-time in a manufacturing setting. Additionally, no personal contact occurred with any of the research participants as they received, completed, and returned the surveys electronically. Upon receipt of the completed surveys, I organized and analyzed data by using Statistical Package for the Social Sciences (SPSS) software.

## **Participants**

SurveyMonkey Audience is an Internet-based instrument which academic researchers commonly use to randomly select and question participants (Welch, O'Connell, & Schiffman, 2015). I used this electronic platform to collect data for this study. SurveyMonkey Audience, which is a part of SurveyMonkey, is a paid service with approximately 1 million members in the United States which allows subscribers to purchase access to targeted groups (Bessett, Gerdt, Littman, Kavanaugh, & Norris, 2015). Survey participants do not pay SurveyMonkey for membership; rather, researchers pay to have surveys sent to targeted populations.

For this study, I purchased access from SurveyMonkey Audience to manufacturing employees in the Southeast United States. The information collected through this survey method is anonymous and will be safely stored on SurveyMonkey's secured server for at least 5 years. All participants did so voluntarily and were 18 years or older at the time of the study; they received no cash incentives. The surveys used in this study included only those completed in their entirety. Participants completed the questionnaire electronically via a computer or other Internet-compatible device. Therefore, manufacturing employees with limited access to online technology were, by default, excluded from study participation.

## **Research Method and Design**

When conducting studies, it is essential that researchers select the most appropriate method and design for investigating the presented problem (Wohlin & Aurum, 2015). Three methods exist for conducting studies: qualitative, quantitative, and

mixed methods (McCusker & Gunaydin, 2015). Researchers use qualitative research methods to understand specifics of participant experiences (McCusker & Gunaydin, 2015). In contrast, quantitative researchers utilize collected data to test hypotheses created because of prior studies or knowledge (McCusker & Gunaydin, 2015).

Researchers use mixed methods to answer complex questions that require both qualitative and quantitative research methods (Shannon-Baker, 2015). I used a quantitative correlational design for this study. Justification for the selection of this method and design appears later in Research Method section.

### **Research Method**

In quantitative research, which was the method chosen for this study, the researcher collects data and deduces specific results from general data to confirm or reject hypotheses (Wohlin & Aurum, 2015). Additionally, researchers can use quantitative research to describe a topic empirically utilizing statistics, which qualitative researchers do not use (Chu, 2015; Guetterman, Fetters, & Creswell, 2015). The purpose of this study was to identify the relationship between two predictor variables and one criterion variable based on statistical analysis of the data collected from participants. While researchers using a qualitative research method can produce empirical studies, they collect data through personal observations and interviews (Chu, 2015; Wohlin & Aurum, 2015). Therefore, personal interpretation and bias occur more readily in qualitative analysis studies, making the validity of the research harder to prove (McCusker & Gunaydin, 2015). With use of a mixed method, researchers use components of

qualitative and quantitative methods (Chu, 2015). However, because this study consisted of deductive research only, I concluded a quantitative method was the best choice.

### **Research Design**

The purpose of this quantitative study was to examine the extent to which two variables predict one criterion variable. Because the relationship between the predictor and criterion variables was the foundation of this research, a correlation design was an appropriate choice for this study. Additionally, Quratulain and Khan (2015) noted that self-reported surveys work well in correlational studies, which is further evidence the correlation design was an appropriate choice since the collected data in this study came from this type of survey. As Bleske-Rechek et al. (2015) noted, researchers using experimental and quasiexperimental designs often use causation and random assignments. These designs were not appropriate for this study due to my decision not to include causation testing and random assignments in the research process.

### **Population and Sampling**

#### **Population**

Uprichard (2013) noted researchers should obtain knowledge regarding the population before conducting a study. The population for this study included manufacturing employees residing in the U.S. Southeast. According to the U.S. Bureau of Labor and Statistics (2016), the U.S. Southeast region includes the states of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. Therefore, the population for this study included full-time employees working in the manufacturing industry in these states.

Hanushek, Schwerdt, Wiederhold, and Woessmann (2015) defined full-time employees as those working a minimum of 30 hours per week. In September 2016, manufacturing employees consisted of approximately 20% of the labor market in the U.S. Southeast (Bureau of Labor Statistics, 2016). Since the underlying research question was how employee job satisfaction and employee job embeddedness predict employee turnover intentions in manufacturing for the Southeastern United States, the results of this study could prove significant to manufacturing managers in this region.

### **Sampling**

Since this study consisted entirely of the responses from contributors of SurveyMonkey Audience employed in U.S. Southeast manufacturing, it required nonprobability sampling. To become a contributor of SurveyMonkey Audience, individuals can enroll online without any obligation and then complete a profile with their demographics (SurveyMonkey, 2016c). Acharya, Prakash, Saxena, and Nigam (2013) defined non-probability samples as those where the probability of subject selection remains unknown to the researcher, thus potentially creating a selection bias. Scholars previously noted that even probability samples have potential for bias due to low response rates (Yang & Banamah, 2013). Because participation selection in this study occurred through SurveyMonkey contributors, specific subject selection remains unknown.

Researchers consider the type of sampling used in this study as convenience sampling (Acharya et al., 2013). Convenience sampling occurs when researchers select the participants due to their accessibility (Bornstein, Jager, & Putnick, 2013). Landers

and Behrend (2015) stated scholars often note external validity threats regarding research that includes convenience sampling due to a lack of generalizability. However, these scholars noted that when convenience sampling includes random sampling of a convenient population for rational reasons and the collected sample remains similar to the intended population, one might draw theoretical conclusions about the population in question. In this study, the sample population included a random number of participants from each of the states in the U.S. Southeast region.

Sample size remains critical for reaching the desired confidence level in the results (Bonett & Wright, 2014). Acharya et al. (2013) noted collecting a representative sample of the overall population allows researchers to reduce the cost and time associated with conducting a large population survey. For instance, there were approximately 2.4 million employees in the U.S. Southeast manufacturing industry as of September 2016 (Bureau of Labor Statistics, 2016). It might prove difficult, time-consuming, and expensive to collect individual surveys from each of these employees. However, utilizing SurveyMonkey members across these states improved the timeliness and cost of the data collected.

Acharya et al. (2013) also noted when utilizing samples, proper representativeness remains important, and researchers should consider sampling methodology, sample size, and response rate to validate the results. For this study, the minimum sample size of 37 to 50 was the result of calculations made using an a-priori size evaluation for a two-tailed, linear regression random model in G\*Power 3.1.9.2 (Faul, Erdfelder, Buchner, & Lang, 2009). Based on this G\*Power model, using two predictor variables with a power

of .85 ( $1 - \beta$ ),  $\alpha = .05$ , and a  $p^2 = .30$ , the minimum sample was 37. Likewise, using the same model and increasing the power to .95 ( $1 - \beta$ ) with  $\alpha = .05$ , and a  $p^2 = .30$ , the minimum sample size required was 50. The basis of  $p^2 = .30$  was from Cohen's (1988) updated benchmarks of  $r = .10$ , .30, and .50 for small, medium, and large effective size, respectively. Other scholars included  $\alpha = .05$  when testing both job satisfaction and turnover intent, thus making this measurement acceptable (Buttigieg & West, 2013). Utilizing  $\alpha = .05$ , there was a 95% confidence level that a Type I error did not occur. Type I errors occur if the researcher rejects the null hypothesis when it is true (Sartor & Halabi, 2015). A power level of 0.95 is associated with Type II errors in research, where the researcher does not reject a false null hypothesis (Bark et al., 2013). For this study, a power level of  $1 - \beta = .95$ , a medium effect size of  $p^2 = .30$ , and  $\alpha = .05$ , resulted in an estimated sample size of 50, which should result in a valid sample size.

### **Ethical Research**

Conducting ethical research is essential for the protection of the study's participants (Dal-Re, Rid, Emanuel, & Wendler, 2016). As such, it is important to note the data collection process taken for this research project. Walden University requires doctoral students to complete an Institutional Review Board (IRB) process. This process includes student researchers attending ethical training and obtaining IRB approval before the data collection process commences. A copy certifying the completion of ethical research training appears in Appendix C.

The data collection process occurred through SurveyMonkey Audience, which has a panel of approximately 3 million U.S. contributors that participate in surveys for

various industries (Wiebe, Littman, & Kaczorowski, 2015). SurveyMonkey is the dominant provider of online survey instruments used by researchers (Mahon, 2014). SurveyMonkey Audience allows researchers to pay for access to a panel of contributors who meet the established profile (SurveyMonkey, 2016b). Individuals in the panel that meet the requirements can elect to participate in the survey (SurveyMonkey, 2016b). Contributors who agree to participate must complete a consent form before receiving access to the survey (see Appendix A). On the consent form, contributors might select the option to abstain from participation or agree to continue to the electronic survey and complete it (SurveyMonkey, 2016c). Once they access the survey, participants have the option of withdrawing from the survey at any point without penalty. SurveyMonkey does not share contributor names, usernames, email addresses, or home addresses with researchers (SurveyMonkey, 2016c).

Contributors who took part in this research study could have received compensation in two ways. The SurveyMonkey Audience might have donated \$.50 to \$1.00 to a participating charity chosen by the contributor, and the participant also could have received the opportunity to enter a sweepstakes for a \$100 gift card to Amazon.com (SurveyMonkey, 2016c). To protect participant information, I disabled the tracking mechanism feature for storing and accessing the Internet protocol addresses for all survey contributors' email addresses. This measure ensured the protection of the participants' personal contact information (SurveyMonkey, 2016a). SurveyMonkey maintains all survey responses on a data server with 24-hour firewall protection security until deletion of the information by the host researcher (SurveyMonkey, 2016a). For this study, I will



maintain the data in a secure location for five years before destroying it and deleting the survey responses from the SurveyMonkey server.

### **Data Collection Instruments**

The survey instruments for this study consisted of (a) Andrews and Withey's (1976) job satisfaction questionnaire (see Appendix B), (b) a global job embeddedness scale (Crossley et al., 2007) (see Appendix C), and (c) a 3-item turnover intent questionnaire derived from a survey created by Mobley et al. (1978) (see Appendix D). All three surveys instruments use rating scales using a Likert-type measurement. Even though the Likert-type rating scales might not represent equal intervals, scholars noted rating scale data is closer to interval data than ordinal data (Meyers, Gamst, & Guarino, 2013). Therefore, this research includes interval data used for statistical analyses. I collected data from participants by combining these instruments into one single survey accessible through SurveyMonkey Audience online. SurveyMonkey is the dominant provider of online survey instruments used by researchers (Mahon, 2014).

Andrews and Withey's (1976) job satisfaction questionnaire measures the satisfaction level of employees using a 7-point Likert-type scale (1 = terrible; 2 = unhappy; 3 = mostly dissatisfied; 4 = mixed; 5 = mostly satisfied; 6 = pleased; 7 = delighted). This instrument contains five questions, encompassing how the employee feels about co-workers, the job overall, work environment, specific work performed, available equipment, information, and human resources for job performance. Using an interval scale, the higher the employee results for these questions, the stronger the job satisfaction level. Scholars have used this instrument to assess job satisfaction in a

variety of fields including psychology (Hidalgo, Maravic, Milet, & Beck, 2016), education (Chang, Leach, & Anderman, 2015), and professional organizations (Li & Ahlstrom, 2016). Permission to use this instrument is not required since this study is for educational purposes. Refer to Appendix E for documentation.

The measurement of job embeddedness occurred through the use of Crossley et al.'s (2007) global job embeddedness scale. This scale measures job embeddedness using a 5-point Likert-type scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). This instrument contains six questions from the global job embeddedness scale encompassing how attached the employee is to the organization. All questions from the original survey appeared in this measurement except one, which stated, *It would be easy for me to leave this organization*. This question did not appear in the survey for this study because another question already measures this information. Using an interval scale, the higher the results collected, the more embedded the employee is in the organization. Various scholars used this instrument in their studies to measure employee job embeddedness (Chen & Wen, 2016; Collins & Mossholder, 2014; Karatepe, 2016). Appendix F contains the permission to use this scale.

The last measurement used includes three questions from Mobley et al.'s (1978) survey on intent to stay. This scale measures intent to stay using a 5-point Likert-type scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). The three questions included in this section of the questionnaire include (a) I often think of leaving the organization; (b) I intend to look for a new job within the next year; and (c) If I could choose again, I would not work for this organization. Using an interval scale, the

higher the added score for this section of the survey, the more likely the individual was to hold the intent to leave the organization. Several scholars used information derived from Mobley et al.'s research in their studies that included employee turnover intent (Azanza, Moriano, Molero, & Mangin, 2015; Islam et al., 2013; Katsikea, Theodosiou, & Morgan, 2015). Appendix G contains the permission to use this instrument.

Researchers use generalizability of the results to show the external validity of an instrument (Lancsar & Swait, 2014). Limits exist for the generalization of this study based on the industry and region it encompasses. However, various scholars used the instruments that encompass the study and noted their validity (Chen & Wen, 2016; Islam et al., 2013; Li & Ahlstrom, 2016).

Cronbach's alpha is a popular and reliable internal consistency measurement used in social and organizational sciences (Bonett & Wright, 2014). Scholars noted a score of .80 and above is considered a generally acceptable level of reliability for Cronbach's alpha (Lonial & Carter, 2015). Therefore, for this study, concluding levels of .80 and higher show increased reliability.

For each of the instruments used for this study, scholars previously showed their validity and reliability. Umans, Broberg, Schmidt, Nilsson, and Olsson (2016) showed the Andrews and Withey's (1976) job satisfaction scale had a reliability of .83, which reflects internal consistency since the value remains above .80. Additionally, scholars noted the Andrews and Withey job satisfaction scale remains significantly correlated at .70 with the job descriptive index and the Minnesota Satisfaction Questionnaire, two reliable instruments used to measure job satisfaction (Hurt, Grist, Malesky, & McCord,

2013). Harzer and Ruch (2013) noted that this job satisfaction questionnaire also has convergent validity ( $r = .70$ ) when compared with other measures of job satisfaction.

Scholars also noted the validity and reliability for the Crossley et al. (2007) job embeddedness scale. Karavardar (2014) utilized this scale and showed a Cronbach's alpha value of more than .86. Likewise, Karatepe (2016) showed the reliability of this job embeddedness scale through research conducted in the hospitality industry. Other scholars tested the reliability and validity of the Crossley et al. job embeddedness scale and concluded an average variance extracted (AVE) construct validity of 71.06% and a reliability of .94 (Marasi et al., 2016). Therefore, based on these scholars' tests, the Crossley et al. job embeddedness scale shows both validity and reliability.

Scholars also confirmed validity and reliability of the three-item questionnaire by Mobley et al. (1978) for turnover intent. Salman, Abdullah, and Saleem (2016) showed the reliability of .91 for this turnover intent instrument using Cronbach's alpha. Likewise, Buttigieg and West (2013) showed a reliability of this instrument with a Cronbach's alpha of .92. Olawale and Olanrewaju (2016) also showed reliability in this instrument with a Cronbach's alpha of .86. Other scholars confirmed the validity of Mobley et al.'s instrument by showing its correlation with actual employee turnover one year after participants completed the survey (Chen et al., 2014). Additionally, these scholars confirmed the reliability of the instrument using Cronbach's alpha, which was .84 in their study.

### **Data Collection Technique**

For this study, I collected data through an online, cross-sectional survey using the SurveyMonkey Audience platform. A researcher uses a cross-sectional survey when collecting data on a phenomenon at only one point in time instead of in a series of time periods (DePoy & Gitlin, 1994). When comparing data collection methods, scholars noted the quality of data collected in-person versus online remains equivocal (Shapka, Domene, Khan, & Yang, 2016), and online surveys yield significant results (Andersson & Titov, 2014).

Several advantages exist for researchers to collect data virtually. One notable advantage of online data collection is the ability to collect information from individuals regardless of their geographical location (Reuter & Schaefer, 2016). When collecting data from individuals in person, both the researcher and the participant are in the same location, which might prove inconvenient for both parties. With online data collection, the participant can complete the questionnaire from any location with internet access and a computer or mobile device. However, scholars noted that internet accessibility is not always possible with certain populations (Chang & Vowles, 2013). Since this study encompassed U.S. Southeast manufacturing employees, obtaining participants with internet access or the capability of completing such a survey is not a significant concern.

Another benefit of online surveys is the level of anonymity participants often feel they have versus face-to-face surveys (Hoglinger, Jann, & Diekmann, 2016; Reuter & Schaefer, 2016). Scholars noted that anonymity remains important when collecting information on sensitive topics (Hoglinger et al., 2016; Wouters, Maesschalck, Peeters, &

Roosen, 2014). These scholars suggested online surveys might lead to better and more accurate responses based on the level of anonymity participants often hold toward this form of questionnaire (Hoglinger et al., 2016; Wouters et al., 2014). Since some employees might consider their intent to leave a firm sensitive information and wish to keep it from their employer, researchers of such topics might receive better responses from participants by utilizing an online survey format.

There are also a few issues and potential disadvantages with collecting data online. Scholars noted that regardless of whether researchers collect information via online or face-to-face, honesty of self-reporting remains a concern (Hoglinger et al., 2016). Other scholars suggested that with online surveys, it is often difficult to determine the truthfulness of responses (Chang & Vowles, 2013). However, Kahn, Ratan, and Williams (2014) noted that issues and errors are possible in all collected self-reported data, causing potential errors in research analysis.

Another potential concern with electronically collecting data is the use of for-profit services like SurveyMonkey (Bansal, Zahedi, & Gefen, 2016; Chang & Vowles, 2013; Gill, Leslie, Grech, & Latour, 2013). Since the information collected remains on an online server, complete confidentiality might concern some participants. However, in the case of this study, I provided an informed consent to help participants understand the process. Additionally, for this doctoral study, the participants frequently participate in surveys using the SurveyMonkey Audience platform. Therefore, most of the participants of this study were already familiar with the process of maintaining the data on an online server.

Once the URR and IRB provided approval for this study, I uploaded the survey into SurveyMonkey Audience. Since this survey included questions previously used and validated by other scholars (Andrews & Withey, 1976; Crossley et al., 2007; Mobley et al., 1978), a pilot study was not necessary (Becker et al., 2014). However, validation of the survey collector account occurred through a preview/test option to ensure all options on the survey were functioning properly. Once the survey went live, I reviewed the responses daily to monitor the collection of completed questionnaires.

### **Data Analysis**

The goal of this study was to answer the following research question:

To what extent does a linear combination of employee job satisfaction and job embeddedness predict employee turnover intentions in the manufacturing industry in the Southeastern United States?

The null and alternative hypotheses for this study included the following:

$H_0$ : A linear combination of employee job satisfaction and job embeddedness is not a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States.

$H_A$ : A linear combination of employee job satisfaction and job embeddedness is a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States.

Data analysis includes the organization and study of a collection of information for use by decision makers (Husereau et al., 2013; McFedries, 2013). Scholars noted researchers have used data analysis to study human culture for thousands of years (Sun,

Strang, & Firmin, 2016). For this study, I extracted the information from SurveyMonkey, imported it into version 21 of SPSS, and performed multiple linear regression analysis on the data collected.

Multiple linear regression analysis was the most suitable choice for analyzing the data in this study since two predictor variables existed along with one criterion variable (Chen, Li, Wu, & Liang, 2014). In non-experimental studies, scholars utilize multiple linear regression to perform statistical evaluations to predict values for a criterion variable when two or more predictor variables exist (Azadi & Karimi-Jashni, 2016; Green & Salkind, 2014). Bivariate regression analysis is another model scholars use to make predictions regarding an independent and dependent variable (Phiri, Ngwira, & Kazembe, 2016). Scholars noted bivariate regression analysis generally produced the best performances in correlational studies (Duveiller, Lopez-Lozano, & Baruth, 2013). However, bivariate linear regression was not applicable for this study since there was more than one predictor variable included (Green & Salkind, 2014).

### **Explanation of Data Screening and Cleaning Procedures and Missing Data**

For researchers, disadvantages to collecting data through online surveys include the inability to observe the participants' actions during the process and the inability to answer any questions that might arise (DeSimone, Harms, & DeSimone, 2014). For this online survey, participants received a consent form outlining the importance of honesty and accuracy of all responses. Each survey participant agreed to the terms outlined on the consent form before proceeding to the questionnaire. If the participants failed to agree to the terms or if they disagreed with the terms, the survey ended immediately.



One significant note included on the consent form was that the participant would answer all questions truthfully. However, scholars noted that even with reminders, participants often deviate from delivering complete truths on surveys (DeSimone et al., 2014). Therefore, regardless of whether a participant completes a survey in the presence of an observer or alone, inaccurate answers are possible.

Because inaccuracies are possible, it is important for researchers to perform data screening and cleaning. Cleaning data includes identifying inaccurate or incomplete data and omitting the information from the dataset to improve the resulting quality (Chen, Mao, & Liu, 2014). Scholars noted the significance of excluding surveys with incomplete data during the data screening and cleaning process (Leeman et al., 2016). Therefore, researchers should begin the screening process by reviewing participants' responses and omitting any incomplete surveys. For this study, I reviewed all data collected and omitted incomplete surveys or those missing responses from the study. Scholars also suggested statistical screening methods, which include omitting participant results that drastically skew the overall study (DeSimone et al., 2014). Therefore, significant outliers discovered during this analysis process did not remain in this study.

### **Assumptions Pertaining to the Statistical Analyses**

Scholars noted that when using multiple linear regression for non-experimental studies, the random-effects model is more appropriate than the fixed-effects model (Green & Salkind, 2014). Other scholars suggested certain assumptions exist in using multiple linear regression analysis and the random-effects model (Bell & Jones, 2015).

Researchers noted some of the assumptions made using this analysis include multicollinearity, outliers, normality of residuals, and linearity (Simpson et al., 2014).

Multicollinearity occurs when strong correlation occurs between two or more predictor variables (Voyer & Voyer, 2015). For this study, I measured the multicollinearity using Pearson's correlation coefficient. Scholars commonly utilize Pearson's correlation coefficient to measure the linear strength between two variables (Barker & Shaw, 2015; Dunn, Martello, Yordanov, Emmott, & Smith, 2014; Hannigan & Lynch, 2013).

Detecting outliers remains essential to analyzing multivariate data (Filzmoser, Ruiz-Gazen, & Thomas-Agnan, 2014). Filzmoser et al. (2014) noted outliers are measurements that vary significantly from the majority of the results in an analysis. For this study, the creation of a scatterplot helped determine outliers in the data collected. Scholars noted scatterplots help researchers visualize correlations and outliers (Chen et al., 2014). Researchers can utilize SPSS to create a scatterplot for analysis purposes (Green & Salkind, 2014). Therefore, after importing the data into SPSS, I used this software to determine the outliers through the creation and analysis of a scatterplot.

In statistics, the assumption of normality of residuals remains important (Shuhbaz, Khraief, Uddin, & Ozturk, 2014). Testing for normality is less important on larger sample sizes than when using smaller samples sizes (Field, 2013). Since the sample size for this study remained small, testing for normality was important. Scholars noted a histogram and normal probability plot are acceptable for measuring the normality of residuals (Field, 2013; Hora & Klassen, 2013). Therefore, the testing of normal

distribution of residuals within this study occurred through a histogram and normal probability plot.

Linearity is another important assumption to consider in multiple linear regression analysis (Simpson et al., 2014). Linearity occurs when the relationship between the predictor and criterion variables align closely. Scholars noted testing the linearity of variables could occur through the creation and analysis of either scatter-plots or partial regression plots (Field, 2013; Savescu, 2015). For this study, I utilized scatterplots to determine linearity.

### **Violations of Assumptions**

Scholars noted bootstrapping remains popular for use in inferential statistics when the assumptions are questioned (Williams & Bornmann, 2016). Researchers use this technique to test and re-test the data-generating process and discover issues that might affect the statistical assumptions (Donovon, Goncalves, & Meddahi, 2013; Kapelko & Lansink, 2015). For this study, I used bootstrapping to address and prevent violations of the assumptions.

### **Interpretation of the Inferential Results**

Through the use and analysis of inferential statistics, scholars determine the significance and probability of the null and alternative hypotheses (Ferreira & Patino, 2015). Likewise, determining linear correlation remained important in this study, and the use of inferential statistics, specifically Pearson's product-moment correlation coefficient, helped in defining the relationship between the predictor and criterion variables. To

conclude significance and probability of the null and alternative hypotheses, I compared the  $p$ -value to a predetermined alpha of .05.

Scholars noted determining the level of significance of the hypotheses remains essential to preventing Type I errors in a study (Green & Salkind, 2014; Seaman, Seaman, & Allen, 2015). The  $p$ -value, which is the probability of discovering the observed or a greater result when the null hypothesis is true (Ferreira & Patino, 2015), served as the measurement of significance for this study. Therefore, a  $p$ -value of .05 or greater, as predetermined by the alpha, would have resulted in accepting the null hypothesis and rejecting the alternative. However, since the significance level was less than .05, the alternative hypothesis was accepted in this study. Scholars noted, however, that researchers should use some judgment regarding the significance levels and accepting or rejecting a hypothesis (Ferreira & Patino, 2015; Verdam, Oort, & Sprangers, 2014). These scholars noted a significant component to analysis is accurate interpretation of the statistics in conjunction with the subject (Ferreira & Patino, 2015; Verdam et al., 2014).

This study also included Pearson's product-moment correlation coefficient. Pearson's product-moment correlation coefficient measures the strength of linearity between two normally distributed variables (Park, 2014). This measurement can range in value from a -1 to a +1 (Green & Salkind, 2014). To interpret correlation utilizing Pearson's correlation coefficient, a value closer to -1 reflects a stronger negative relationship between variables, a value of 0 shows no relationship between the variables,

and a value closer to +1 reflects a stronger positive relationship between variables (Green & Salkind, 2014; Zou, Zeng, Cao, & Ji, 2016).

### **Study Validity**

Validity of research includes how well an instrument measures the items studied (Yalcin, Tatoglu, & Zaim, 2016) and the legitimacy of the findings (Venkatesh et al., 2013). Two significant forms of validity researchers address within studies include internal and external validity. Internal validity includes the errors in measuring the variables used, while external validity includes whether researchers can generalize the results of a study to a larger population (Van Kooten et al., 2016).

#### **Internal Validity**

Scholars noted studies with a non-experimental design have some advantages over experimental studies (Avery, Der, Whitsel, & Sturmer, 2014). One such advantage is that causation is often not sought, which removes some internal validity concern (Rockers, Rottingen, Shemilt, & Tugwell, 2015). In this study, I did not attempt to determine causation. However, the control of Type I errors occurred through requiring a *p*-value of .05 or less for significance (Ferreira & Patino, 2015; Seaman et al., 2015).

#### **External Validity**

External validity includes using the appropriate sample size within a study to prevent Type II errors (Seaman et al., 2015). To determine the appropriate sample size, the use of power is necessary (Bradley & Brand, 2013). For this study, the minimum sample size of 37 to 50 was the result of calculations made using an a-priori size evaluation for a two-tailed, linear regression random model in G\*Power 3.1.9.2 (Faul et

al., 2009). I surveyed 81 individuals for this study. However, only 63 of the participants surveyed were qualified. Obtaining an appropriate number of qualified participants is essential to meet the required sample size and to prevent a Type II error.

### **Statistical Conclusion Validity**

Statistical conclusion validity includes appropriately using statistics to infer the covariance of two variables (Yanagida, Strohmeier, & Spiel, 2016). One significant component of statistical conclusion validity is sample size, which is also a component important to external validity (Nock, Kessler, & Franklin, 2016). However, once determination of the sample size occurs and participants complete the survey, researchers perform data analysis using a quality statistical program. For this study, I utilized version 21 of SPSS to create graphs and statistics for analysis purposes. Scholars consider SPSS reliable software for performing research analysis (Bonnechere et al., 2014). To verify the statistical results produced by SPSS, a visual review of all outputs and bootstrapping of the samples occurred. Researchers often use bootstrapping to test and re-test the data-generating process to discover issues and errors within the process and to increase the validity of the results (Donovon et al., 2013; Kapelko & Lansink, 2015).

### **Transition and Summary**

Section 2 contains a description of the processes that occurred during this study. As noted in the *Research Method and Design* section, I used a quantitative correlational study to examine the relationship between employee job satisfaction, job embeddedness, and turnover intent in U.S. Southeast manufacturing companies. I met the minimum required sample size of 50 participants in this study, as required based on the results

calculated utilizing G\*Power 3.1.9.2, since I used 63 qualified surveys to complete this study. Participants completed a survey utilizing the SurveyMonkey Audience platform with questions derived from Andrews and Withey's (1976) job satisfaction questionnaire, the Crossley et al. (2007) global job embeddedness scale, and the Mobley et al. (1978) three-item turnover intent questionnaire. Once participants completed the surveys, I performed multiple linear regression analysis utilizing SPSS version 21 to determine whether to reject or accept the null hypothesis at a 95% confidence interval. To ensure the accuracy of the results presented, analysis of a histogram, a normal probability plot, and scatterplots occurred in this section of the study. Based on the results of the analysis performed, I answered all research questions presented in this study. Section 3 includes all study findings, presentations of the material information discovered, and a discussion of the results. Additionally, this section of the study includes an application of the results that manufacturing managers might utilize to enhance their business practices and to strengthen their company's impact on positive social change.

### Section 3: Application to Professional Practice and Implications for Change

#### **Introduction**

The purpose of this quantitative correlational study was to examine the extent to which employee job satisfaction and job embeddedness are predictors of employee turnover intentions. The predictor variables were employee job satisfaction and employee job embeddedness. The criterion variable was employee turnover intention. I rejected the null hypothesis and accepted the alternative hypothesis. Employee job satisfaction and employee job embeddedness were found to significantly predict employee turnover. I studied the relationships between these variables by compiling three questionnaires previously used by scholars to study job satisfaction (Andrews and Withey, 1976), job embeddedness (Crossley et al., 2007), and turnover intent (Mobley et al. 1979) into one new survey, which I administered using SurveyMonkey Audience. The minimum sample size required for this study was 50 completed surveys based on G\*Power 3.1.9.2 results. After omitting incomplete surveys and outliers, the final number of participants for this study was 63.

My intention in conducting this study was to provide managers in U.S. Southeast manufacturing with useful information to help reduce turnover intent among their employees. Job satisfaction and job embeddedness are statistically significant variables that affect turnover intent within this region and industry. Therefore, both predictor variables should remain areas of focus for U.S. Southeast manufacturing managers. In the future, I plan to present my study results and recommendations, including potential steps manufacturing managers might take to help reduce turnover intent in their



organizations, in peer-reviewed journal articles and presentations to organizations with a strong U.S. Southeast manufacturing management presence.

### **Presentation of the Findings**

I conducted multiple linear regression analysis on the data collected using SPSS to determine the specific relationships between employee job satisfaction, employee job embeddedness, and employee turnover intent. Additionally, I tested the hypotheses to determine whether a statistically significant relationship existed between the predictor variables (job satisfaction and job embeddedness) and the criterion variable (turnover intent). As a result of the analysis process, I rejected the null hypothesis (a linear combination of employee job satisfaction and job embeddedness is not a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States) and accepted the alternative hypothesis. In doing so, I concluded that a linear combination of employee job satisfaction and job embeddedness is a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States, based on my study data.

The findings from this study reinforce Herzberg et al.'s (1959) thoughts regarding job satisfaction. According to Herzberg et al.'s formulation of two-factor theory, job satisfaction should predict employee turnover intentions. I found a  $-.703$  correlation between job satisfaction and turnover intent among the employees surveyed in the manufacturing industry and Southeastern U.S. region. Based on this significant negative correlation, I believe that Herzberg et al.'s theory continues to apply in the U.S. Southeast manufacturing industry.

I also confirmed that job embeddedness theory, as discussed by Mitchell et al. (2001), remains applicable in U.S. Southeast manufacturing. In this study, there was a -.501 correlation between job embeddedness and turnover intent. Mitchell et al. suggested the job embeddedness theory is a significant alternative to other more traditional theories. The p-value of .000 for both employee job satisfaction and employee job embeddedness, when correlated to turnover intent, helped me confirm the results and reinforced that the theories from Herzberg et al. (1959) and Mitchell et al. remain applicable to current U.S. Southeast manufacturing employees.

The minimum required sample size for this study was 50. While I collected 81 surveys through SurveyMonkey Audience, after omitting outliers and incomplete surveys, I was left with 63 surveys to analyze. Of the 81 surveys collected using SurveyMonkey Audience, 12 of the participants declined to accept the consent form. Therefore, these individuals did not proceed past the initial page of the survey. However, SurveyMonkey Audience counted these individuals in the total survey number because they had begun the survey. Three of the remaining participants began but did not complete the survey. They only answered about half of the questions. When reviewing the scatterplots, I noticed three outliers. Two of these outliers came from the results of the job satisfaction portion of the questionnaire, and one resulted from the job embeddedness portion of the survey. Therefore, when I completed the analysis of the data, there were only 63 qualified surveys available.

## Model Fit

In SPSS, I ran a model fit diagnostic for multiple linear regression utilizing the predictor and criterion variables of this study. Based on the information from Table 2, the  $R^2$  value was .705 while the adjusted  $R^2$  value was .696. These values show that the regression line explains approximately 70% of the variability of the response data to the mean. Since  $R^2$  ranges from 0% to 100%, .705 shows the model fits these data.

Table 2

### *Model Summary*

Model <sup>a</sup>	R	R Square	Adjusted R square	Std. error of the estimate
1	.840 <sup>a</sup>	.705	.696	.59010

a. Predictors (constant) were job embeddedness and job satisfaction.

## Descriptive Statistics

Based on output results from G\*Power 3.1.9.2, the minimum sample size for this study was 37 to 50 participants. I determined this sample size using an a-priori size evaluation for a two-tailed, linear regression random model as suggested in the work of Faul et al. (2009). To prevent a Type II error, I wanted to collect between 60 and 100 qualified surveys from participants. SurveyMonkey Audience only guaranteed I would receive 75 results. While SurveyMonkey sent a total of 81 surveys, when I omitted the incomplete surveys and outliers, only 63 participant surveys remained. This number exceeded the required number of surveys needed to prevent Type II errors even though it was a smaller number than I initially desired to collect.

The mean for turnover intent was 2.370 with a standard deviation of 1.069 (see Table 3 for descriptive statistics from the study). For job satisfaction, the mean was 3.781 with a standard deviation of 0.650. For job embeddedness, the mean was 3.177 with a standard deviation of 1.07. I performed bootstrapping on these statistics to show the results within a 95% confidence interval based on 1,000 bootstrap samples.

Researchers often use bootstrapping to test and retest the data-generating process (Donovon et al., 2013; Kapelko & Lansink, 2015). Also, scholars can use bootstrapping to discover issues and errors in the research process and to increase result validity (Donovon et al., 2013; Kapelko & Lansink, 2015).

Table 3

*Descriptive Statistics*

		Statistic	Bootstrap			
			Bias	Std. error	95% confidence interval	
					Lower	Upper
Turnover intent	<i>M</i>	2.3704	-0.0025	0.1332	2.1164	2.6349
	<i>SD</i>	1.06947	-0.01327	0.08112	0.89570	1.20928
	<i>N</i>	63	0	0	63	63
Job satisfaction	<i>M</i>	3.7810	0.0018	0.0811	3.6254	3.9365
	<i>SD</i>	0.65027	-0.00868	0.05902	0.52452	0.75831
	<i>N</i>	63	0	0	63	63
Job embeddedness	<i>M</i>	3.1772	-0.0010	0.1332	2.9180	3.4259
	<i>SD</i>	1.07341	-0.01306	0.07668	0.90811	1.20977
	<i>N</i>	63	0	0	63	63

*Note.* Unless otherwise noted, bootstrap results consist of 1000 bootstrap samples.

Table 4 includes the frequencies specifically for the criterion variable. The data included in this table show the frequency of the various responses to all 63 surveys utilized for this study. The frequency results correspond to the Likert scale results of 1

(strongly disagree) to 5 (strongly agree) using the Mobley et al. (1978) intent to stay questionnaire.

Table 4

*Frequency of Responses for Criterion Variable, Turnover Intent*

<i>f</i>	%	Valid %	Cumulative %	Bootstrap for Percent				
				Bias	SE	95% Confidence Interval		
						Lower	Upper	
1.00	12	19.0	19.0	19.0	-.2	5.0	9.5	28.6
1.33	5	7.9	7.9	27.0	.0	3.4	1.6	15.9
1.67	3	4.8	4.8	31.7	-.1	2.6	.0	9.5
2.00	11	17.5	17.5	49.2	.3	4.8	9.5	27.0
2.33	5	7.9	7.9	57.1	.0	3.3	1.6	14.3
2.67	6	9.5	9.5	66.7	.0	3.7	3.2	17.5
3.00	5	7.9	7.9	74.6	.1	3.4	1.6	14.3
3.33	5	7.9	7.9	82.5	.1	3.4	1.6	14.3
3.67	5	7.9	7.9	90.5	-.2	3.3	1.6	14.3
4.00	4	6.3	6.3	96.8	-.2	3.1	1.6	12.7
5.00	2	3.2	3.2	100.0	.0	2.1	.0	7.9
Total	63	100.0	100.0		.0	.0	100.0	100.0

*Note.* Unless otherwise noted, bootstrap results consist of 1000 bootstrap samples.

### **Inferential Statistics Results**

The primary research question for this study was, To what extent does a linear combination of employee job satisfaction and job embeddedness predict employee turnover intentions in the manufacturing industry in the Southeastern United States?

I performed multiple linear regression analysis where alpha was predetermined at .05 (two-tailed) to examine how well job satisfaction and job embeddedness predict employee turnover intentions. Scholars noted that determining the level of significance

using the p-value in comparison to the predetermined alpha remains essential in preventing Type I errors (Green & Salkind, 2014; Seaman, Seaman, & Allen, 2015). For this study, the significance level was .000, which is less than .05. Because the significant level, or p-value, was less than .05, I had to accept the alternative hypothesis: A linear combination of employee job satisfaction and job embeddedness is a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States. There were 2 degrees of freedom for this study, as shown in Table 5.

Table 5

*ANOVA<sup>a</sup>*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.020	2	25.010	71.822	.000 <sup>b</sup>
	Residual	20.893	60	0.348		
	Total	70.914	62			

a. Dependent Variable was turnover intent

b. Predictors (constant) were job embeddedness and job satisfaction.

### **Assumption Testing**

In this study, I made various assumptions regarding multicollinearity, outliers, normality of residuals, and linearity. These assumptions remained important to this study and the validity and accuracy of the results. Therefore, throughout the analysis process, I tested these assumptions utilizing methods previously recommended by scholars.

**Multicollinearity.** Multicollinearity occurs when there is strong correlation between two or more predictor variables (Voyer & Voyer, 2015). Scholars noted that researchers could utilize Pearson's correlation coefficient to measure multicollinearity

(Barker & Shaw, 2015; Dunn et al., 2014; Hannigan & Lynch, 2013). Therefore, to test multicollinearity in this study, I utilized Pearson's correlation coefficient. Based on the Pearson's correlation coefficient for this study, the predictor variables remain correlated to each other at .486. While this result reflects positive correlation between job satisfaction and job embeddedness, the correlation is not above the .900 level. Correlation between .900 and 1.00 would mean there is very little variation in the way the two predictor variables relate to the criterion variable, which could cause redundancy in the results. A correlation of .486 for the two predictor variables is acceptable for this study since it is not so strong that testing one variable would result in similar results to the testing of the other variable.

Through analysis of the covariance numbers, I also confirmed both the negative relationship between the two predictor variables and turnover intent (-.703 and -.501). The results of this analysis indicated I should reject the null hypothesis: A linear combination of employee job satisfaction and job embeddedness is not a predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States. Likewise, I accepted the alternative hypothesis: A linear combination of employee job satisfaction and job embeddedness is a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States.

Table 6

*Correlations*

		Job satisfaction	Job embeddedness	Turnover intent
Job satisfaction	Pearson Correlation	1	.486**	-.703**
	Sig. (2-tailed)		.000	.000
	Sum of squares and Cross-products	27.298	22.866	-32.882
	Covariance	.420	.352	-.506
	N	66	66	66
Job embeddedness	Pearson Correlation	.486**	1	-.501**
	Sig. (2-tailed)	.000		.000
	Sum of squares and Cross-products	22.866	81.236	-40.409
	Covariance	.352	1.250	-.622
	N	66	66	66
Turnover intent	Pearson Correlation	-.703**	-.501**	1
	Sig. (2-tailed)	.000	.000	
	Sum of squares and Cross-products	-32.882	-40.409	80.197
	Covariance	-.506	-.622	1.234
	N	66	66	66

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Outliers.** This study included multivariate data. Scholars noted that detecting outliers in such data is essential (Filzmoser et al., 2014). Green and Salkind (2014) suggested researchers use scatterplots to discover outliers that might affect the results of multivariate research. For this study, I created scatterplots in SPSS and reviewed the data. I omitted all participant results that fell outside of a 95% confidence interval as noted by SPSS on the initial scatterplots. There were two outliers on the job satisfaction scatterplot and one on the job embeddedness scatterplot. Figures 1 and 2 include the final



scatterplots for both job satisfaction and job embeddedness. Outliers are not included in these graphics.

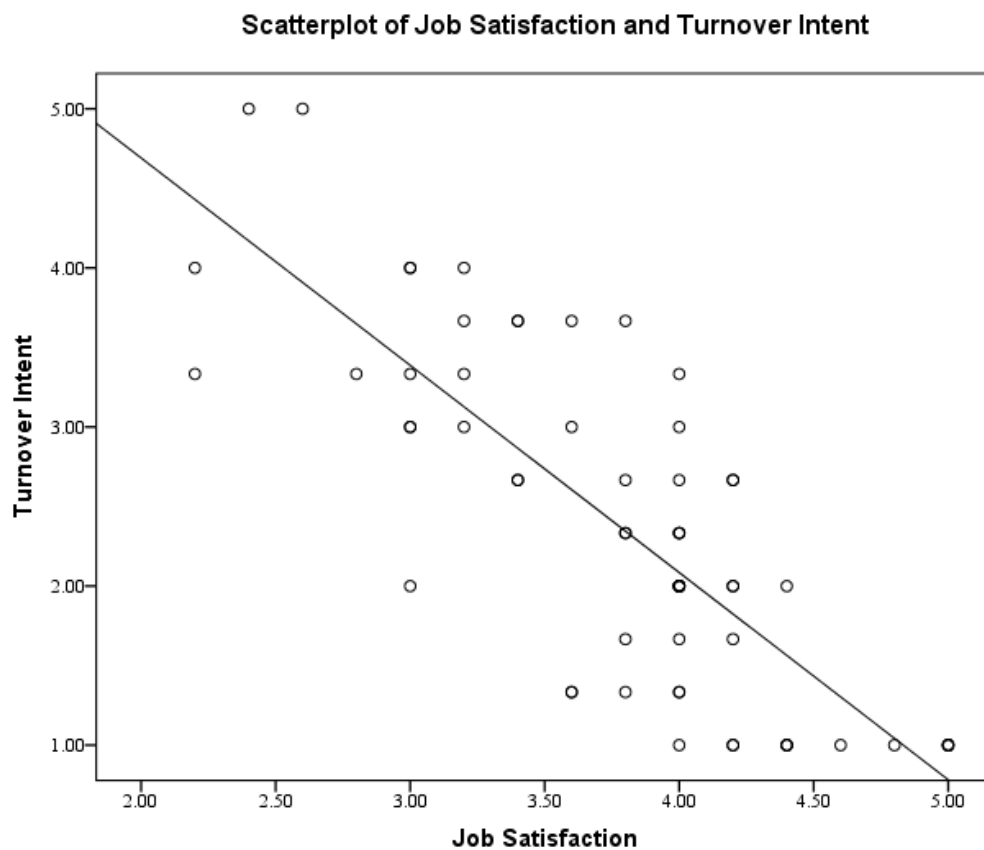


Figure 1. Scatterplot of job satisfaction and turnover intent.

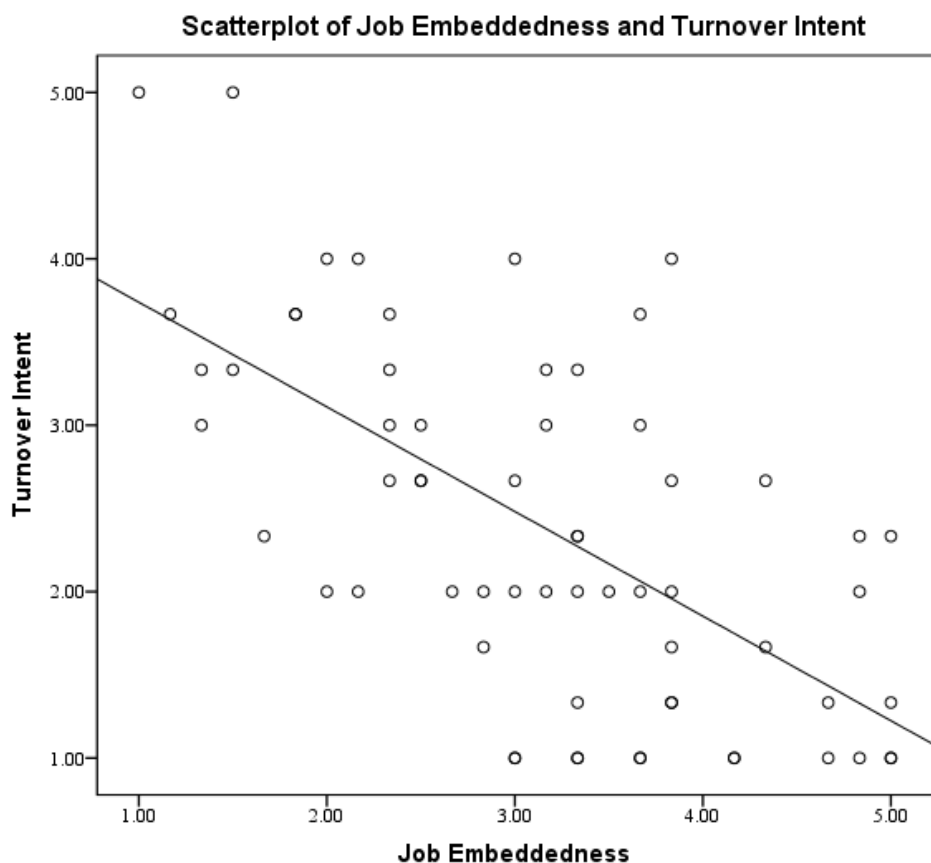


Figure 2. Scatterplot of job embeddedness and turnover intent.

**Normality of residuals.** Another assumption made in this study was normal distribution. While scholars noted that testing for normality is less important on large sample sizes (Field, 2013), it remained essential for this study due to the small number of survey participants. It is through normal distribution that researchers can gain confidence that the assumptions used in the study are valid. Based on scholars' suggestions (Field, 2013; Hora & Klassen, 2013), I used both histograms and normal probability plots to test for normality. Based on Figures 3 through 7, this study contained normal distribution. In Figure 3 and 4, one can see a normal bell curve for both job satisfaction data and job

embeddedness results. In Figures 5 through 7, the data remains close to the 45-degree line, which researchers expect when viewing normal distributions. Therefore, based on the results from each of these figures, normal distribution occurred in this study.

Figure 3

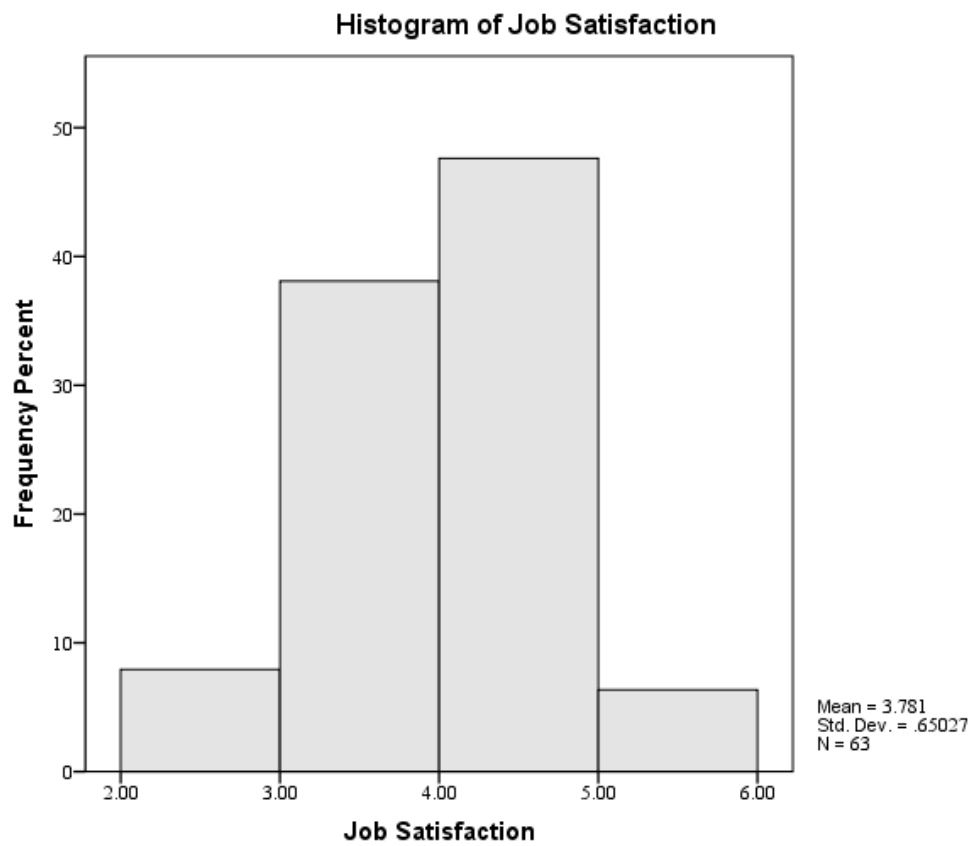
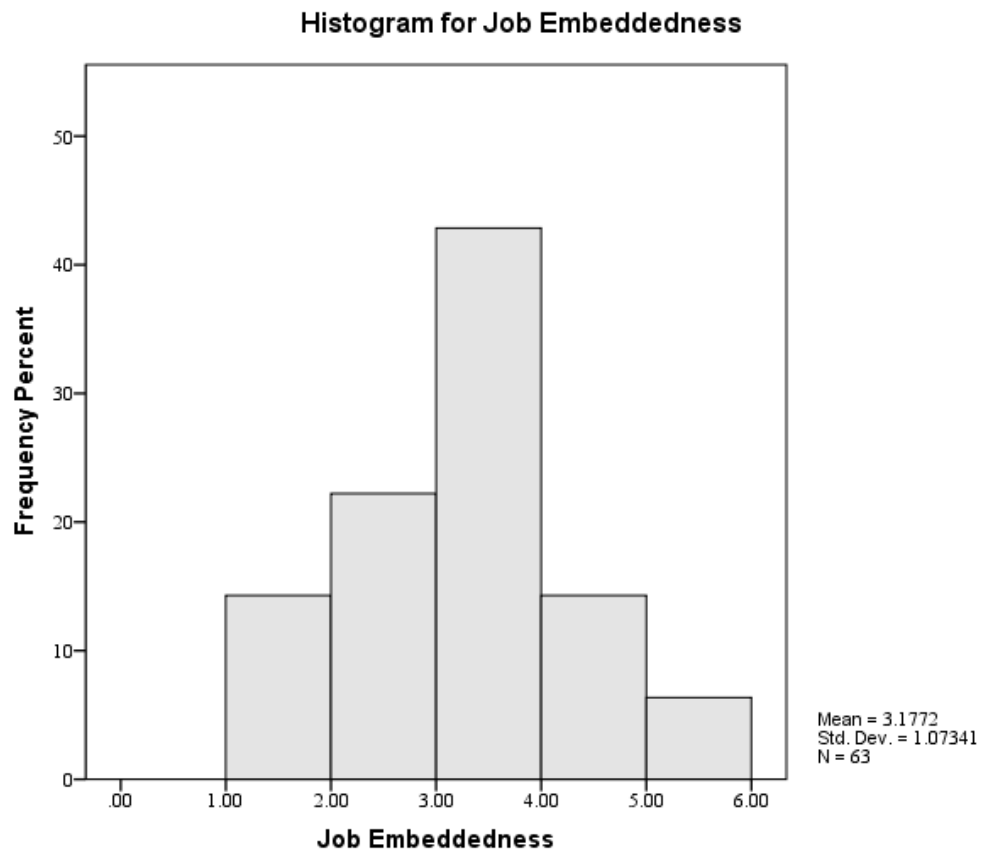


Figure 3. Histogram of job satisfaction.



*Figure 4.* Histogram for job embeddedness.



Figure 5. Normal Q-Q plot of job satisfaction.

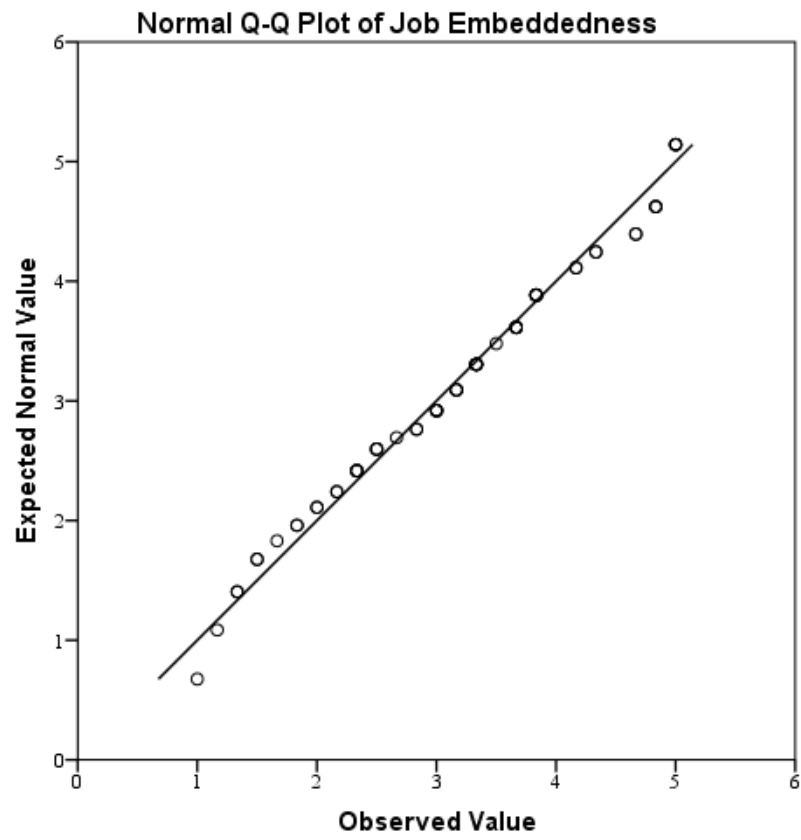
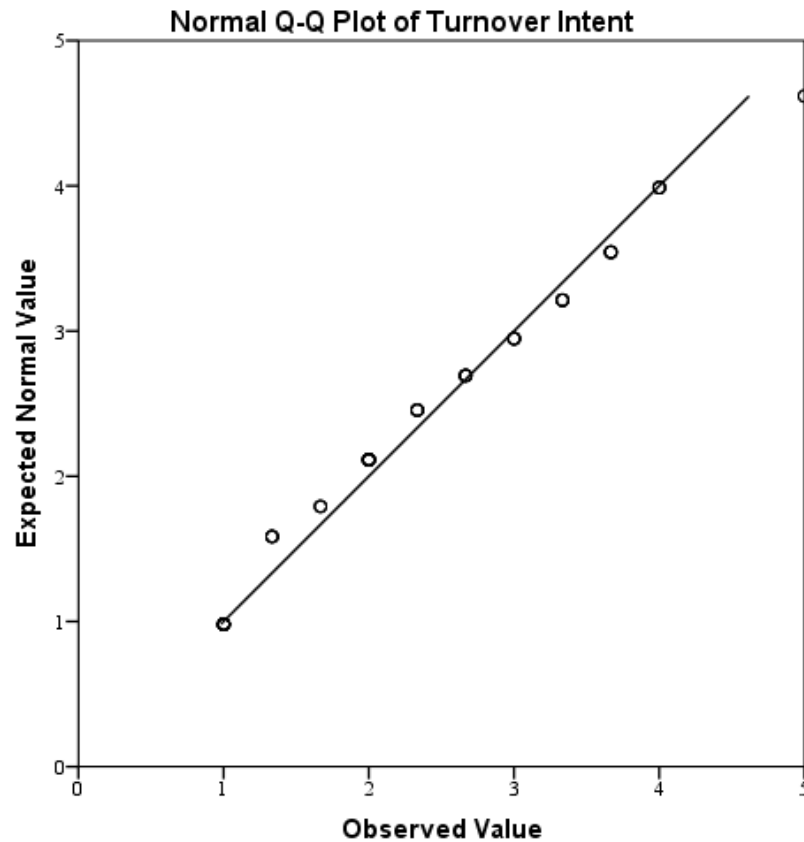


Figure 6. Normal Q-Q plot of job embeddedness.



*Figure 7.* Normal Q-Q plot of turnover intent.

**Linearity.** The last assumption made in this study was that of linearity. When performing studies using multiple linear regression analysis, showing linearity in the results is important (Simpson et al., 2014). Linearity occurs when the predictor and criterion variables align closely. Scholars noted that testing for linearity could occur through scatterplots (Field, 2013; Savescu, 2015). Therefore, I utilized scatterplots in this study to prove linearity between the variables. The scatterplots for job satisfaction, job embeddedness, and turnover intent appear in Figure 1 and Figure 2 of this study. I used SPSS to create these figures, and the lines drawn in both graphs show the results of the

predictor variables and the criterion variable. Based on these figures, linearity occurred in this study.

### **Comparison of Study Results to Information from the Literature Review**

A negative correlation existed between job satisfaction, job embeddedness, and turnover intent for the U.S. Southeast manufacturing employees that took part in this study. Based on the correlation results from Table 3, the correlation between job satisfaction and turnover intent was  $-.703$  while the correlation between job embeddedness and turnover intent was  $-.501$ . What these numbers indicate is that as job satisfaction and job embeddedness decrease for a worker, the employee is more likely to leave the job.

The results of this study align well with information from prior scholars. Yu and Kang (2016), for example, noted job satisfaction might positively contribute to employee retention. Likewise, Ali (2016) suggested managers concentrate on job satisfaction among employees to prevent negative consequences from dissatisfaction. Additionally, Ko and Kim (2016) suggested job embeddedness could improve turnover intention rates within organizations while Marasi, Cox, and Bennett (2016) noted job embeddedness might indirectly help increase retention and reduce organizational turnover. Therefore, the results of this study align well with prior scholars' research.

Through this study, I extended the research of other scholars by specifically targeting U.S. Southeast manufacturing employees. Other recent studies available presented general information applicable to various industries across the globe. None of the studies available specifically included manufacturing employees or even U.S.



Southeast employees. Therefore, while the results of this study confirmed prior scholars' research, I also provided statistics showing the significance of both job satisfaction and job embeddedness specifically on turnover intent in this region and industry.

### **Applications to Professional Practice**

Hancock et al. (2013) suggested a significant correlation exists between the financial performance of manufacturers and employee turnover, which makes turnover intent an important area of study for the manufacturing industry. Upadhayay and Vrat (2016) noted total employee turnover expenses could cost businesses more than 100% of a single employee's annual wages or salary, depending on the job left unoccupied. These scholars noted employee turnover decreases profits due to increased hiring costs and weaker employee performances (Upadhayay & Vrat, 2016). Therefore, understanding the variables that might contribute to turnover intent remains important.

Through this study, I determined that a statistically significant correlation exists between job satisfaction, job embeddedness, and turnover intent among U.S. Southeast manufacturing employees. If managers understand this relationship between job satisfaction and job embeddedness, they can begin concentrating their efforts on creating work environments that satisfy worker needs and embed employees to the organization and their specific jobs. However, once managers realize the correlation between these variables and decide to increase job satisfaction and job embeddedness within the workforce, they should begin to develop specific strategies that will align with their employees' needs and help better embed employees in the organization and to the job while improving their job satisfaction levels. Scholars noted that job satisfaction factors

do not remain constant (O'Keefe, Corry, & Moser, 2015). Likewise, each employee is different and what embeds one in a job might not similarly affect another. However, to help strengthen the production, sales, and ending profits for an organization, it remains important to consider how to create job satisfaction and embeddedness to improve turnover intent. Additionally, based on the results of this study, it is important managers understand both job satisfaction and job embeddedness can help improve turnover intent in U.S. Southeast manufacturing.

### **Implications for Social Change**

The results of this study not only affect individual organizations, but they could impact local economies and society as well. Approximately 8.8% of the U.S. economy comes from the manufacturing industry. Additionally, U.S. Southeast manufacturers employ 19% of the nation's manufacturing employees (Scott, 2015; United States Environmental Protection Agency, 2016). Therefore, if weakness resides in this industry and region, other areas of the country might feel the effects as well. As Vasquez (2014) noted, significant turnover in organizations leads to slower economic growth as the unemployment rate increases in communities, which could influence tax collections and social programs.

Other more indirect issues from employee turnover begin with physical and mental health issues. Breuer (2015) stated suicide rates increase in developed countries when unemployment rates rise, which also costs society productive employees and money to support surviving family members. Drydakis (2015) conducted a longitudinal

study in Greece where he concluded that physical and mental health declines in societies where unemployment rates increase.

There are other societal benefits to managers working to reduce turnover besides better physical and mental health. Scholars noted that improved employee retention increases organizations' profits and could positively affect companies' abilities to increase philanthropic donations to the surrounding community (Chalmeta & Viinikka, 2016). Additionally, Chalmeta and Viinikka (2016) noted that companies who regularly participate in philanthropic donations in the community are more likely to have loyal and engaged employees, stronger productivity levels, and stronger corporate social responsibility in general. Therefore, based on various scholars' research, it remains important that manufacturing managers in the Southeast understand the correlation between job satisfaction, job embeddedness, and turnover intent not only for the financial benefit to their company but also for the community in which the organization resides and the economy.

### **Recommendations for Action**

Properly managing an organization's human resources remains essential not only to the organization but also to society (Gould-Williams, 2016). However, the first step is recognizing what variables affect employees' decisions to stay with a company and embedding the workers in their job. If managers do not understand what causes turnover, it is harder to prevent employees from leaving the organization. Based on the results of this study, job satisfaction and job embeddedness are correlated to turnover intentions in the U.S. Southeast manufacturing industry. Scholars also noted that changes occurring in

the economy, globalization, and diversification are creating shifts in managing organizational talent (Stone & Deadrick, 2015; Tangthong et al., 2015). Therefore, based on these facts, it is important that managers understand the latest statistics regarding the motivations of employees in their region, industry, and individual company to help meet employee needs and retain innovative talent.

Once manufacturing managers understand the correlation between job satisfaction, job embeddedness, and turnover intent, the next step they might take is to conduct further research with individual employees to begin to understand what motivates each employee with regard to satisfaction and embeddedness within his or her job. As Herzberg et al. (1959) noted, employee satisfaction and dissatisfaction depend on exposure to certain workplace factors. It is up to the managers of these employees to discover what specifically motivates his or her employees and to help propel job satisfaction. Likewise, Mitchell et al. (2001) noted managers should understand how to create job embeddedness for each employee to prevent increased turnover intent.

The final step managers might take once they understand the correlation between job satisfaction, job embeddedness, and turnover intent along with the motivating factors of specific employees is to create a strategy to help increase both job satisfaction and job embeddedness within the workforce. Galpin et al. (2015) suggested that a company's human resource strategy remains the center of its ability to achieve sustainability. Therefore, creating a strategy to help improve job satisfaction and job embeddedness is essential to the future success of companies. Based on scholars' research, successful companies are beneficial not only to direct stakeholders but also to indirect stakeholders

in the community where the organization operates (Du et al., 2015). Therefore, managers should not overlook the importance of creating a strategy that improves job satisfaction and job embeddedness within the workplace.

While these steps remain important to U.S. Southeast manufacturing managers, it also is important to discuss how these individuals will receive the results of this study so they can begin the process of improving employee retention rates within their respective companies. My plan is to present the findings of this study in peer-reviewed journals utilized by manufacturing managers from the U.S. Southeast and at professional organizational meetings attended by these key managers. Providing this current information as affirmation of how employees in today's workforce feel about job satisfaction and job embeddedness along with showing the significant correlation between these variables and turnover intent should draw awareness of how important it is for managers to address these human resource issues with their employees.

### **Recommendations for Further Research**

Several limitations existed in this study, including the lack of generalizability, the self-reporting status of the participants, the single-researcher analysis, and the correlational design. By utilizing SurveyMonkey Audience, my intent was to reach unbiased and generalized results among the manufacturing employees in the Southeastern United States. Bootstrapping occurred using SPSS, which helped validate the accuracy of the results. While generalization across all industries and global regions did not occur, generalization within the region and industry of focus occurred because of the platform utilized.

Self-reporting data exists in many surveys. However, to counteract any concerns, I included in the consent form reaffirmation that all data would remain private. Not even I know who participated in this study. Additionally, all participants in this study were members of SurveyMonkey Audience at the time of the survey. So, each participant was familiar with the platform and the company's security and privacy standards. Each of these factors should contribute to more accurate results from the participants.

The third limitation was the fact only one researcher performed the analysis in this study. However, to combat this limitation, all information collected and all tables and figures pulled using SPSS will remain on a storage device for review by Walden officials at any time. All relevant tables and figures discussed in this study appear in this document for clarity and confirmation purposes. Additionally, all data will go through a minimum of four Walden reviewers. Therefore, the information in this study was peer-reviewed upon publishing.

The final limitation of this study was the correlation design. Scholars noted that researchers often infer causation with correlation (Merianos et al., 2013). As the single researcher in this study, I understand that correlation does not mean causation. To discover causation, researchers should conduct additional studies regarding job satisfaction and job embeddedness and their impact on turnover intent in U.S. Southeast manufacturing outside of using correlation.

My recommendations for future researchers of this topic include possibly conducting a qualitative study regarding employee retention. Utilizing a qualitative study with various manufacturing employees in this region might prove beneficial in

determining strategies for improving not only job satisfaction and job embeddedness, but also in determining other factors that might affect a manufacturing employee's decision to stay with a company. Other factors might prove more important than job satisfaction and job embeddedness on U.S. Southeast manufacturing employees. Additionally, managers could create and implement specific strategies to help improve turnover intent numbers within the organization and retain more of the quality and innovative employees that help companies reach sustainability.

Additionally, I recommend future researchers replicate this study in other regions and industries or specific companies. Just because the correlation between these variables remained significant in U.S. Southeast manufacturing does not mean the same results will occur in every industry, region, or individual company. Demographics and needs of employees could vary depending on location and job, making this study a good initial study for managers to replicate to better understand the specific needs within their own regions, industries, or organizations.

### **Reflections**

Manufacturing affects a significant portion of the economy in the U.S. Southeast (Scott, 2015). The decision to study this region and industry came not only because of the significant impact this industry has on the U.S. Southeast economy but because such limited research is available on this topic within this industry and region. There were virtually no peer-reviewed articles by researchers addressing these variables and their relationship to turnover intent in U.S. Southeast manufacturing within the last 5 years. Therefore, I decided to complete this study.

While I felt that both job satisfaction and job embeddedness remained important to employees, in general, I had no predetermined thoughts regarding exactly how correlated these variables were to turnover intent in current U.S. Southeast manufacturing. Because of the importance of both variables to turnover intent in other industries and regions globally within recent years, I felt obligated to study and report the results and feelings of current U.S. Southeast manufacturing employees. Through the results of this study, it is possible that manufacturing managers will glean the importance of both variables not only on turnover intent but also on overall corporate profits, local communities, and the region's economy. Understanding the relationship between both variables and turnover intent might help manufacturing managers increase their focus on the human resources of their respective companies. The benefits of increasing such a focus could include better production, increased profits, and better economies for the communities where Southeast manufacturers reside (Du et al., 2015; Galpin et al., 2015; Peltokorpi et al., 2015).

While I have never worked full-time in the manufacturing industry, many family members have or continue to work in manufacturing in the U.S. Southeast. Because of these individuals, several who are currently in management positions, I understand the importance of human resources. Through the process of this study, I gained a greater understanding of the importance of human capital to an organization's success. As Ngirande (2014) noted, employee attraction and retention are the biggest challenges in human capital management. Therefore, it remains important that managers know and



understand the variables that affect the relationships and retention of a company's greatest capital, its employees (Karatop, Kubat, & Uygun, 2015).

### **Conclusion**

Employee turnover is costly for both organizations and society. High employee turnover can result in weaker employee morale, loss of innovative workers, increased worker stress, lower productivity, decreased sales, and a decline in profits (Hayward et al., 2016). Additionally, weaker corporate profits can lead to a lower community tax base, weaker philanthropic donations, and a ripple effect on the greater economy (Du et al. 2015; Vasquez, 2014). Scholars noted that employee attraction and retention are the biggest challenges to human capital management (Terera & Ngirande, 2014). Therefore, because of its significance from a cost perspective and the difficulty in addressing the human resource issues, this topic is a timely one for U.S. Southeast manufacturing managers.

The results of this research showed a linear combination of employee job satisfaction and job embeddedness is a significant predictor of employee turnover intentions in the manufacturing industry in the Southeastern United States. Therefore, manufacturing managers in this region and industry should consider the results of this study, discover specific needs of their employees, and create and implement strategies that strengthen employee job satisfaction and job embeddedness within their workforces. The results of such strategies could improve employee retention within the company, increase corporate profits, enhance the surrounding community, and positively affect the economy.

## References

- AbuAlRub, R., El-Jardali, F., Jamal, D., & Al-Rub, N. A. (2016). Exploring the relationship between work environment, job satisfaction, and intent to stay of Jordanian nurses in underserved areas. *Applied Nursing Research, 31*, 19-23. <http://dx.doi.org/10.1016/j.apnr.2015.11.014>
- Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and how of it? *Indian Journal of Medical Specialties, 4*, 330-333. <http://dx.doi.org/10.7713/ijms.2013.0032>
- Ahmad, N., Tariq, M. S., & Hussain, A. (2015). Human resource practices and employee retention, evidence from banking sector of Pakistan. *Journal of Business and Management Research, 7*, 186-188. Retrieved from <http://www.knowledgejournals.com>
- Akbulut, Y. (2015). Predictors of inconsistent responding in web surveys. *Internet Research, 25*(1), 131-147. <http://dx.doi.org/10.1108/IntR-01-2014-0017>
- Albdour, A. A., & Altarawneh, I. I. (2014). Employee engagement and organizational commitment: Evidence from Jordan. *International Journal of Business, 19*, 192-212. Retrieved from <http://www.craig.csufresno.edu/ijb/>
- Ali, W. (2016). Understanding the concept of job satisfaction, measurements, theories and its significance in the recent organizational environment: A theoretical framework. *Archives of Business Research, 4*(1), 100-111. <http://dx.doi.org/10.14738/abr.41.1735>
- Anaza, N. A. (2015). Relations of fit and organizational identification to employee-

customer identification. *Journal of Managerial Psychology*, 30, 925-939.

<http://dx.doi.org/10.1108/jmp-12-2012-0389>

Andersson, G., & Titov, N. (2014). Advantages and limitations of Internet-based interventions for common mental disorders. *World Psychiatry*, 13(1), 4-11.

<http://dx.doi.org/10.1002/wps.20083>

Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being: Americans' perceptions of life quality*. New York, NY: Plenum Press.

Anitha, J. (2014). Determinants of employee engagement and their impact on employee performance. *International Journal of Productivity and Performance*

*Management*, 63, 308-323. <http://dx.doi.org/10.1108/IJPPM-01-2013-0008>

Ashikali, T., & Groeneveld, S. (2015). Diversity management for all? An empirical analysis of diversity management outcomes across groups. *Personnel Review*, 44,

757-780. <http://dx.doi.org/10.1108/PR-10-2014-0216>

Avery, C. L., Der, J. S., Whitsel, E. A., & Sturmer, T. (2014). Comparison of study design used to detect and characterize pharmacogenomic interactions in non-

experimental studies: A simulation study. *Pharmacogenet Genomics*, 24, 146-155. <http://dx.doi.org/10.1097/FPC.0000000000000027>

Azadi, S., & Karimi-Jashni, A. (2016). Verifying the performance of artificial neural network and multiple linear regression in predicting the mean seasonal municipal

solid waste generation rate: A case study of Fars province, Iran. *Waste*

*Management*, 48, 14-23. <http://dx.doi.org/10.1016/j.wasman.2015.09.034>

Azanza, G., Moriano, J. A., Molero, F., & Mangin, J. L. (2015). The effects of authentic

- leadership on turnover intention. *Leadership & Organization Development Journal*, 36, 955-971. <http://dx.doi.org/10.1108/LODJ-03-2014-0056>
- Babalola, S. S. (2016). The effect of leadership style, job satisfaction and employee-supervisor relationship on job performance and organizational commitment. *The Journal of Applied Business Research*, 32, 931-946. <http://dx.doi.org/10.19030/jabr.v32i3.9667>
- Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The meaning, antecedents and outcomes of employee engagement: A narrative synthesis. *International Journal of Management Reviews*, 19(1), 31-53. <http://dx.doi.org/10.1111/ijmr.12077>
- Bansal, G., Zahedi, F. M., & Gefen, D. (2016). Do context and personality matter? Trust and privacy concerns in disclosing private information online. *Information & Management*, 53(1), 1-21. <http://dx.doi.org/10.1016/j.im.2015.08.001>
- Bark, R. H., Peeters, L. J., Lester, R. E., Pollino, C. A., Crossman, N. D., & Kandulu, J. M. (2013). Understanding the sources of uncertainty to reduce the risks of undesirable outcomes in large-scale freshwater ecosystem restoration projects: An example from the Murray-Darling Basin, Australia. *Environmental Science & Policy*, 33, 97-108. <http://dx.doi.org/10.1016/j.envsci.2013.04.010>
- Barker, L. E., & Shaw, K. M. (2015). Best (but oft-forgotten) practices: Checking assumptions concerning regression residuals. *American Journal of Clinical Nutrition*, 103, 533-539. <http://dx.doi.org/10.3945/ajcn.115.113498>
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Chicago, IL: University of Chicago Press.

- Becker, K., Siewert, M., Casteleyn, L., Joas, R., Joas, A., Biot, P., ... Kolossa-Gehring, M. (2014). A systematic approach for designing a HBM pilot study for Europe. *International Journal of Hygiene and Environmental Health*, *217*, 312-322. <http://dx.doi.org/10.1016/j.ijheh.2013.07.004>
- Belias, D., & Koustelios, A. (2014). Organizational culture and job satisfaction: A review. *International Review of Management and Marketing*, *4*, 132-149. Retrieved from <http://www.econjournals.com/index.php/irmm>
- Bell, A., & Jones, K. (2015). Explaining fixed effects: Random effects modeling of time-series cross-sectional and panel data. *Political Science Research and Methods*, *3*(1), 133-153. <http://dx.doi.org/10.1017/psrm.2014.7>
- Bessett, D., Gerdt, C., Littman, L. L., Kavanaugh, M. L., & Norris, A. (2015). Does state-level context matter for individuals' knowledge about abortion, legality and health? Challenging the 'red states v. blue states' hypothesis. *Culture, Health & Sexuality*, *17*, 733-746. <http://dx.doi.org/10.1080/13691058.2014.994230>
- Bleske-Rechek, A., Morrison, K. M., & Heidtke, L. D. (2015). Causal inference from description of experimental and non-experimental research: Public understanding of correlation-versus-causation. *The Journal of General Psychology*, *142*(1), 48-70. <http://dx.doi.org/10.1080/00221309.2014.977216>
- Bonett, D. G., & Wright, T. A. (2014). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, *36*(1), 3-15. <http://dx.doi.org/10.1002/job.1960>
- Bonnechere, B., Jansen, B., Salvia, P., Bouzahouene, H., Omelina, L., Moiseev, F., ...

- Jan, S. V. (2014). Validity and reliability of the Kinect within functional assessment activities: Comparison with standard stereophotogrammetry. *Gait & Posture*, *39*, 593-598. <http://dx.doi.org/10.1016/j.gaitpost.2013.09.018>
- Bornstein, M. H., Jager, J., & Putnick, D. L. (2013). Sampling in developmental science: Situations, shortcomings, solutions, and standards. *Developmental Review*, *33*, 357-370. <http://dx.doi.org/10.1016/j.dr.2013.08.003>
- Bradley, M. T., & Brand, A. (2013). Alpha values as a function of sample size, effect size, and power: Accuracy over inference. *Psychological Reports*, *112*, 835-844. <http://dx.doi.org/10.2466/03.49.pr0.112.3.835-844>
- Brannan, M. J. (2015). Employee retention, symbolic violence and the structuring of subordination in a UK-based call centre. *The Sociological Review*, *63*, 801-819. <http://dx.doi.org/10.1111/1467-954x.12312>
- Breuer, C. (2015). Unemployment and suicide mortality: Evidence from regional panel data in Europe. *Health Economics*, *24*, 936-950. <http://dx.doi.org/10.1002/hec.3073>
- Brewer, C. S., Chao, Y., Colder, C. R., Kovner, C. T., & Chacko, T. P. (2015). A structural equation model of turnover for a longitudinal survey among early career registered nurses. *International Journal of Nursing Studies*, *52*, 1735-1745.
- Bureau of Labor Statistics. (2016). Southeast information office: Geographic information. Retrieved from <http://www.bls.gov/regions/southeast/>
- Buttigieg, S. C., & West, M. A. (2013). Senior management leadership, social support, job design, and stressor-to-strain relationships in hospital practice. *Journal of*

*Health Organization and Management*, 27, 171-192.

<http://dx.doi.org/1108/14777261311321761>

- Camgoz, S. M., & Karapinar, P. B. (2016). Linking secure attachment to commitment: Trust in supervisors. *Leadership & Organization Development Journal*, 37, 387-402. <http://dx.doi.org/10.1108/LODJ-07-2014-0130>
- Camman, C., Fichman, M., Jenkins, D., & Klesh, J. (1979). *The Michigan organizational assessment questionnaire*. Unpublished manuscript, University of Michigan, Ann Arbor, MI.
- Carland, Jr., J. W., Carland, J. C., & Carland, III, J. W. (2015). Self-actualization: The zenith of entrepreneurship. *Journal of Small Business Strategy*, 6(1), 53-66. Retrieved from <http://www.jsbs.org/>
- Carter, W. R., Nesbit, P. L., Badham, R. J., Parker, S. K., & Sung, L. K. (2016). The effects of employee engagement and self-efficacy on job performance: A longitudinal field study. *The International Journal of Human Resource Management*, 1-20. <http://dx.doi.org/10.1080/09585192.2016.1244096>
- Chalmeta, R., & Viinikka, H. (2016). Corporate philanthropy communication on donor websites. *Journal of Information, Communication and Ethics in Society*, 15(1), 53-73. <http://dx.doi.org/10.1108/JICES-03-2016-0008>
- Chang, T., & Vowles, N. (2013). Strategies for improving data reliability for online surveys: A case study. *International Journal of Electronic Commerce Studies*, 4(1), 121-130. <http://dx.doi.org/10.7903/ijecs.1121>
- Chang, Y., Leach, N., & Anderman, E. M. (2015). The role of perceived autonomy

support in principals' affective organizational commitment and job satisfaction.

*Social Psychology of Education*, 18, 315-336. <http://dx.doi.org/10.1007/s11218-014-9289-z>

Charlier, S. D., Guay, R. P., & Zimmerman, R. D. (2016). Plugged in or disconnected? A model of the effects of technological factors on employee job embeddedness.

*Human Resource Management*, 55(1), 109-126.

<http://dx.doi.org/10.1002/hrm.21716/pdf>

Chen, C., & Wen, P. (2016). The effect of mentoring on protégés' organizational deviance. *Psychological Reports*, 119, 200-220.

<http://dx.doi.org/10.1177/0033294116659456>

Chen, H., Chen, W., Mei, H., Liu, Z., Zhou, K., Chen, W., ... Ma, K. (2014). Visual abstraction and exploration of multi-class scatterplots. *IEEE Transactions on Visualization and Computer Graphics*, 20, 1683-1692.

<http://dx.doi.org/10.1109/tvcg.2014.2346594>

Chen, J., Hou, Z., Li, X., Lovelace, K. J., Liu, Y., & Wang, Z. (2016). The role of career growth in Chinese new employee's turnover process. *Journal of Career Development*, 43(1), 11-25.

<http://dx.doi.org/10.1177/0894845315571412>

Chen, M., Mao, S., & Liu, Y. (2014). Big data: A survey. *Mobile Networks and Applications*, 19, 171-209. <http://dx.doi.org/10.1007/s11036-013-0489-0>

Chen, Y., Li, Y., Wu, H., & Liang, L. (2014). Data envelopment analysis with missing data: A multiple linear regression analysis approach. *International Journal of Information Technology & Decision Making*, 13(1), 137-153.



<http://dx.doi.org/10.1142/S0219622014500060>

Chen, Z., & Cao, Y. (2016). Chinese private corporate philanthropy: Social responsibility, legitimacy strategy, and the role of political capital. *Chinese Sociological Review*, 48, 108-136.

<http://dx.doi.org/10.1080/21620555.2015.1128815>

Chenevert, D., Jourdain, G., & Vandenberghe, C. (2016). The role of high-involvement work practices and professional self-image in nursing recruits' turnover: A three-year prospective study. *International Journal of Nursing Studies*, 53(1), 73-84.

<http://dx.doi.org/10.1016/j.ijnurstu.2015.09.005>

Chhabra, B. (2015). Person-job fit: Mediating role of job satisfaction & organizational commitment. *Indian Journal of Industrial Relations*, 50, 638-652. Retrieved from <https://www.jstor.org/journal/indijindurela>

Chinchilla-Rodriguez, Z., Miguel, S., & De Moya-Anegon, F. (2015). What factors affect the visibility of Argentinean publications in humanities and social sciences in Scopus? Some evidence beyond the geographic realm of research.

*Scientometrics*, 102, 789-810. <http://dx.doi.org/10.1007/s11192-014-1414-4>

Choi, J. S., & Kim, K. M. (2015). Job embeddedness factors as a predictor of turnover intention among infection control nurses in Korea. *American Journal of Infection Control*, 43, 1213-1217. <http://dx.doi.org/10.1016/j.ajic.2015.06.017>

Chu, H. (2015). Research methods in library and information science: A content analysis. *Library & Information Science Research*, 37(1), 36-41.

<http://dx.doi.org/10.1016/j.lisr.2014.09.003>

- Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., ... Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine, 45*(1), 11-27.  
<http://dx.doi.org/10.1017/S0033291714000129>
- Clinton, M., Knight, T., & Guest, D. E. (2012). Job embeddedness: A new attitudinal measure. *International Journal of Selection and Assessment, 20*(1), 111-117.  
<http://dx.doi.org/10.1111/j.1468-2389.2012.00584.x>
- Cloutier, O., Felusiak, L., Hill, C., & Pemberton-Jones, E. J. (2015). The importance of developing strategies for employee retention. *Journal of Leadership, Accountability and Ethics, 12*(2), 119-128. Retrieved from <http://www.na-businesspress.com/jlaeopen.html>
- Coetsee, M., & Stoltz, E. (2015). Employees' satisfaction with retention factors: Exploring the role of career adaptability. *Journal of Vocational Behavior, 89*, 83-91. <http://dx.doi.org/10.1016/j.jvb.2015.04.012>
- Cohen, J. (1988). *Statistical power of abnormal-social psychological research: A review*. Hillsdale, NJ: Erlbaum.
- Collins, B. J., & Mossholder, K. W. (2014). Fairness means more to some than others: Interactional fairness, job embeddedness, and discretionary work behaviors. *Journal of Management, 43*, 293-318.  
<http://dx.doi.org/10.1177/0149206314527132>

- Corbin, W. R., Farmer, N. M., & Nolen-Hoekesma, S. (2013). Relations among stress, coping strategies, coping motives, alcohol consumption and related problems: A mediated moderation model. *Addictive Behaviors, 38*, 1912-1919.  
<http://dx.doi.org/10.1016/j.addbeh.2012.12.005>
- Crossley, C. D., Bennett, R. J., Jex, S. M., & Burnfield, J. L. (2007). Development of a global measurement of job embeddedness and integration into a traditional model of voluntary turnover. *Journal of Applied Psychology, 92*, 1031-1042.  
<http://dx.doi.org/10.1037/0021-9010.92.4.1031>
- Dal-Re, R., Rid, A., Emanuel, E., & Wendler, D. (2016). Addressing exploitation of poor clinical trial participants in North America and the European Union. *European Journal of Internal Medicine, 34*, e37-e38.  
<http://dx.doi.org/10.1016/j.ejim.2016.06.026>
- De Beer, L. T., Tims, M., & Bakker, A. B. (2016). Job crafting and its impact on work engagement and job satisfaction in mining and manufacturing. *South African Journal of Economic and Management Sciences, 19*, 400-412.  
<http://dx.doi.org/10.17159/2222-3436/2016/v19n3a7>
- Deery, M., & Jago, L. (2015). Revisiting talent management, work-life balance and retention strategies. *International Journal of Contemporary Hospitality Management, 27*, 453-472. <http://dx.doi.org/10.1108/IJCHM-12-2013-0538>
- Dekoulou, P., & Trivellas, P. (2015). Measuring the impact of learning organization on job satisfaction and individual performance in Greek advertising sector. *Procedia: Social and Behavioral Sciences, 175*, 367-375.

<http://dx.doi.org/10.1016/j.sbspro.2015.01.1212>

- Denton, P. D., & Maatgi, M. K. (2016). The development of a work environment framework for ISO 9000 standard success. *International Journal of Quality & Reliability Management*, 33, 231-245. <http://dx.doi.org/10.1108/IJQRM-12-2013-0196>
- DePoy, E., & Gitlin, L. N. (1994). *Introduction to research: Multiple strategies for health and human services*. London, England: Mosby.
- Derby-Davis, M. J. (2014). Predictors of nursing faculty's job satisfaction and intent to stay in academe. *Journal of Professional Nursing*, 30(1), 19-25.  
<http://dx.doi.org/10.1016/j.profnurs.2013.04.001>
- DeSimone, J. A., Harms, P. D., & DeSimone, A. J. (2014). Best practice recommendations for data screening. *Journal of Organizational Behavior*, 36, 171-181. <http://dx.doi.org/10.1002/job.1962>
- Donovon, P., Goncalves, S., & Meddahi, N. (2013). Bootstrapping realized multivariate volatility measures. *Journal of Econometrics*, 172(1), 49-65.  
<http://dx.doi.org/10.1016/j.jeconom.2012.08.003>
- Drydakis, N. (2015). The effect of unemployment on self-reported health and mental health in Greece from 2008 to 2013: A longitudinal study before and during the financial crisis. *Social Science & Medicine*, 128, 43-51.  
<http://dx.doi.org/10.1016/j.socscimed.2014.12.025>
- Du, S., Bhattacharya, C. B., & Sen, S. (2015). Corporate social responsibility, multi-faceted job-products, and employee outcomes. *Journal of Business Ethics*, 131,

319-335. <http://dx.doi.org/10.1007/s10551-014-2286-5>

Dunn, S. J., Martello, G., Yordanov, B., Emmott, S., & Smith, A. G. (2014). Defining an essential transcription factor program for naive pluripotency. *Science*, *344*, 1156-1160. <http://dx.doi.org/10.1126/science.1248882>

Duveiller, G., Lopez-Lozano, R., & Baruth, B. (2013). Enhanced processing of 1-km spatial resolution fAPAR time series for sugarcane yield forecasting and monitoring. *Remote Sensing*, *5*, 1091-1116. <http://dx.doi.org/10.3390/rs5031091>

Dysvik, A., Buch, R., & Kuvaas, B. (2015). Knowledge donating and knowledge collecting: The moderating roles of social and economic LMX. *Leadership & Organization Development Journal*, *36*(1), 35-53. <http://dx.doi.org/10.1108/LODJ-11-2012-0145>

Fagan, J., & Ployhart, R. E. (2015). The information processing foundations of human capital resources: Leveraging insights from information processing approaches to intelligence. *Human Resource Management Review*, *25*(1), 4-11. <http://dx.doi.org/10.1016/j.hrmr.2014.09.003>

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. (2009). Statistical power analysis using G\*Power 3.1 tests for correlation and regression analyses. *Behavioral Research Methods*, *41*, 1149-1160. <http://dx.doi.org/10.3758/brm.41.4.1149>

Ferreira, J. C., & Patino, C. M. (2015). What does the p value really mean? *Jornal Brasileiro de Pneumologia*, *41*, 485-485. <http://dx.doi.org/10.1590/s1806-37132015000000215>

Ferreira, M. R., Proenca, T., & Proenca, J. F. (2015). Volunteers' intention to stay in

- Portuguese hospitals. *International Journal of Voluntary and Nonprofit Organizations*, 26, 890-912. <http://dx.doi.org/10.1007/s11266-014-9466-x>
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA: Sage.
- Filzmoser, P., Ruiz-Gazen, A., & Thomas-Agnan, C. (2014). Identification of local multivariate outliers. *Statistical Papers*, 55(1), 29-47. <http://dx.doi.org/10.1007/s00362-013-0524-z>
- Findik, M., Ogut, A., & Cagliyan, V. (2013). An evaluation about person-organization fit, job satisfaction, and turnover intention: A case of health institution. *Mediterranean Journal of Social Sciences*, 4, 434-440. <http://dx.doi.org/10.5901/mjss.2013.v4n11p434>
- Fu, W., & Deshpande, S. P. (2014). The impact of caring climate, job satisfaction, and organizational commitment on job performance of employees in a China's insurance company. *Journal of Business Ethics*, 124, 339-349. <http://dx.doi.org/10.1007/s10551-013-1876-y>
- Gallus, J., & Frey, B. S. (2016). Awards: A strategic management perspective. *Strategic Management Journal*, 37, 1699-1714. <http://dx.doi.org/10.1002/smj.2415>
- Galpin, T., Whittington, J. L., & Bell, G. (2015). Is your sustainability strategy sustainable? Creating a culture of sustainability. *Corporate Governance: The International Journal of Business in Society* 15(1), 1-17. <http://dx.doi.org/10.1108/CG-01-2013-0004>
- Gambardella, A., Panico, C., & Valentini, G. (2013). Strategic incentives to human

capital. *Strategic Management Journal*, 36(1), 37-52.

<http://dx.doi.org/10.1002/smj.2200>

- Ghosh, P., Rai, A., Chauhan, R., Gupta, N., & Singh, A. (2015). Exploring the moderating role of context satisfaction between job characteristics and turnover intention of employees of Indian public sector banks. *Journal of Management Development*, 34, 1019-1030. <http://dx.doi.org/10.1108/JMD-10-2014-0138>
- Ghosh, P., Stayawadi, R., Joshi, J. P., & Shadman, M. (2013). Who stays with you? Factors predicting employees' intention to stay. *International Journal of Organizational Analysis*, 21, 288-312. <http://dx.doi.org/10.1108/IJOA-Sep-2011-0511>
- Gill, F. J., Leslie, G. D., Grech, C., & Latour, J. M. (2013). Using a web-based survey tool to undertake a Delphi study: Application for nurse education research. *Nurse Education Today*, 33, 1322-1328. <http://dx.doi.org/10.1016/j.nedt.2013.02.016>
- Gould-Williams, J. S. (2016). Managers' motives for investing in HR practices and their implications for public service motivation: A theoretical perspective. *International Journal of Manpower*, 37, 764-776. <http://dx.doi.org/10.1108/IJM-03-2016-0065>
- Graen, G. (1976). Role-making processes within complex organizations. In M. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1201-1245). Chicago: Rand-McNally.
- Green, S. B., & Salkind, N. J. (2014). *Using SPSS for Windows and Macintosh: Analyzing and understanding data* (7th ed.). Upper Saddle River, NJ: Pearson

Education.

Guetterman, T. C., Fetters, M. D., & Creswell, J. W. (2015). Integrating quantitative and qualitative results in health science mixed methods research through joint displays. *Annals of Family Medicine, 13*, 554-561.

<http://dx.doi.org/10.1370/afm.1865>

Halim, H. A., Ahmad, N. H., Taghizadeh, S. K., Ramayah, T., & Mohamad, M. N. (2015). Promoting innovative performance through social embeddedness: An analysis on innovative human capital among SMEs. *International Journal of Innovation, Management and Technology, 6*, 81-87.

<http://dx.doi.org/10.7763/ijimt.2015.v6.579>

Hancock, J. I., Bosco, F. A., McDaniel, K. R., & Pierce, C. A. (2013). Meta-analytic review of employee turnover as a predictor of firm performance. *Journal of Management, 39*, 573-603. <http://dx.doi.org/10.1177/0149206311424943>

Hannigan, A., & Lynch, C. D. (2013). Statistical methodology in oral and dental research: Pitfalls and recommendations. *Journal of Dentistry, 41*, 385-392.

<http://dx.doi.org/10.1016/j.jdent.2013.02.013>

Hanushek, E. A., Schwerdt, G., Wiederhold, S., & Woessmann, L. (2015). Returns to skills around the world: Evidence from PIAAC. *European Economic Review, 73*,

103-130. <http://dx.doi.org/10.3386/w19762>

Harhara, A. S., Singh, S. K., & Hussain, M. (2015). Correlates of employee turnover intentions in oil and gas industry in the UAE. *International Journal of*

*Organizational Analysis, 23*, 493-504.



0821

- Harju, L. K., Hakanen, J. J., & Schaufeli, W. B. (2016). Can job crafting reduce job boredom and increase work engagement? A three-year cross-lagged panel study. *Journal of Vocational Behavior, 95-96*, 11-20.  
<http://dx.doi.org/10.1016/j.jvb.2016.07.001>
- Harzer, C., & Ruch, W. (2013). The application of signature character strengths and positive experiences at work. *Journal of Happiness Studies, 14*, 965-983.  
<http://dx.doi.org/10.1007/s10902-012-9364-0>
- Hauff, S., Richter, N. F., & Tressin, T. (2015). Situational job characteristics and job satisfaction: The moderating role of national culture. *International Business Review, 24*, 710-723. <http://dx.doi.org/10.1016/j.ibusrev.2015.01.003>
- Hayward, D., Bungay, V., Wolff, A. C., & MacDonald, V. (2016). A qualitative study of experienced nurses' voluntary turnover: Learning from their perspectives. *Journal of Clinical Nursing, 25*, 1336-1345. <http://dx.doi.org/10.1111/jocn.13210>
- Hechanova, R. M. (2013). The call center as a revolving door: A Philippine perspective. *Personnel Review, 42*, 349-365. <http://dx.doi.org/10.1108/00483481311320444>
- Hee, O. C., & Abidin, A. B. (2016). The moderating effects of job satisfaction on the relationship between personality traits and customer-oriented behavior in the Malaysian health tourism industry. *International Business Research, 9(6)*, 72-79.  
<http://dx.doi.org/10.5539/ibr.v9n6p72>
- Henderson, A. (2016). Jesus didn't teach us to juggle: Religious involvement, work-family conflict, and life satisfaction among African Americans. *Journal of Family*

*Issues*, 37, 1558-1584. <http://dx.doi.org/10.1177/0192513x14561520>

Heritage, B., Gilbert, J. M., & Roberts, L. D. (2016). Job embeddedness demonstrates incremental validity when predicting turnover intentions for Australian university employees. *Frontiers in Psychology*, 7, 1-12.

<http://dx.doi.org/10.3389/fpsyg.2016.00582>

Herzberg, F., Mauser, B., & Snyderman, B. (1959). *The motivation to work*. New York, NY: Wiley.

Hidalgo, J., Maravic, M. C., Milet, R. C., & Beck, J. C. (2016). Promoting collaborative relationship in residential care of vulnerable and traumatized youth: A playfulness approach integrated with trauma systems therapy. *Journal of Child & Adolescent Trauma*, 9(1), 17-28. <http://dx.doi.org/10.1007/s40653-015-0076-6>

Hofhuis, J., Van der Zee, K. I., & Otten, S. (2015). Measuring employee perception on the effects of cultural diversity at work: Development of the benefits and threats of diversity scale. *Quality & Quantity*, 49, 177-201.

<http://dx.doi.org/10.1007/s11135-013-9981-7>

Hoglinger, M., Jann, B., & Diekmann, A. (2016). Sensitive questions in online surveys: An experimental evaluation of different implementations of the randomized response technique and the crosswise model. *Survey Research Methods*, 10, 171-187. <http://dx.doi.org/10.18148/srm/2016.v10i3.6703>

Holtom, B. C., & Burch, T. C. (2016). A model of turnover-based disruption in customer services. *Human Resource Management Review*, 26(1), 25-36.

<http://dx.doi.org/10.1016/j.hrmr.2015.09.004>

- Hora, M., & Klassen, R. D. (2013). Learning from others' misfortune: Factors influencing knowledge acquisition to reduce operational risk. *Journal of Operations Management*, 31(1-2) 52-61.  
<http://dx.doi.org/10.1016/j.jom.2012.06.004>
- Huang, W., & Su, C. (2016). The mediating role of job satisfaction in the relationship between job training satisfaction and turnover intentions. *Industrial and Commercial Training*, 48(1), 42-52. <http://dx.doi.org/10.1108/ICT-04-2015-0029>
- Huang, Y., Lee, J., McFadden, A. C., Murphy, L. A., Robertson, M. M., Cheung, J. H., & Zohar, D. (2016). Beyond safety outcomes: An investigation of the impact of safety climate on job satisfaction, employee engagement and turnover using social exchange theory as the theoretical framework. *Applied Ergonomics*, 55, 248-257.  
<http://dx.doi.org/10.1016/j.apergo.2015.10.007>
- Hurt, A. A., Grist, C. L., Malesky Jr., L. A., & McCord, D. M. (2013). Personality traits associated with occupational 'burnout' in ABA therapists. *Journal of Applied Research in Intellectual Disabilities*, 26, 299-308.  
<http://dx.doi.org/10.1111/jar.12043>
- Husereau, D., Drummand, M., Petrou, S., Carswell, C., Moher, D., Greenberg, D., ... Loder, E. (2013). Consolidated health economic evaluation reporting standards (CHEERS) statement. *Clinical Therapeutics*, 35, 356-363.  
<http://dx.doi.org/10.1016/j.clinthera.2013.03.003>
- Islam, T., Khan, S. U., Ahmad, U. N., & Ahmed, I. (2013). Organizational learning culture and leader-member exchange quality. *The Learning Organization*, 20,

322-337. <http://dx.doi.org/10.1108/TLO-12-2012-0079>

- Jang, Y., Lee, A. A., Zadrozny, M., Bae, S., Kim, M. T., & Marti, N. C. (2015). Determinants of job satisfaction and turnover intent in home health workers: The role of job demands and resources. *Journal of Applied Gerontology, 36*(1), 56-70. <http://dx.doi.org/10.1177/0733464815586059>
- Jayasingam, S., Govindasamy, M., & Singh, S. K. (2016). Instilling affective commitment: Insights on what makes knowledge workers want to stay. *Management Research Review, 39*, 266-288. <http://dx.doi.org/10.1108/MRR-03-2014-0060>
- Jiang, Y., & Kim, Y. (2015). Developing multi-dimensional green value: Extending social exchange theory to explore customers' purchase intention in green hotels - evidence from Korea. *International Journal of Contemporary Hospitality Management, 27*, 308-334. <http://dx.doi.org/10.1108/IJCHM-08-2013-0383>
- Jung, H. S., & Yoon, H. H. (2016). What does work meaning to hospitality employees? The effects of meaningful work on employees' organizational commitment: The mediating role of job engagement. *International Journal of Hospitality Management, 53*, 59-68. <http://dx.doi.org/10.1016/j.ijhm.2015.12.004>
- Kahn, A.S., Ratan, R., & Williams, D. (2014). Why we distort in self-report: Predictors of self-report errors in video game play. *Journal of Computer-Mediated Communications, 19*, 1010-1023. <http://dxdoi.org/10.1111/jcc4.12056>
- Kanten, P., Kanten, S., & Gurlek, M. (2015). The effects of organizational structures and learning organization on job embeddedness and individual adaptive performance.

*Procedia: Economics and Finance*, 23, 1358-1366.

[http://dx.doi.org/10.1016/S2212-5671\(15\)00523-7](http://dx.doi.org/10.1016/S2212-5671(15)00523-7)

Kapelko, M., & Lansink, A. O. (2015). An international comparison of productivity change in the textile and clothing industry: A bootstrapped Malmquist index approach. *Empirical Economics*, 48, 1499-1523.

<http://dx.doi.org/10.1007/s00181-014-0835-5>

Karatepe, O. M. (2016). Does job embeddedness mediate the effects of coworker and family support on creative performance? An empirical study in the hotel industry. *Journal of Human Resources in Hospitality & Tourism*, 15, 119-132.

<http://dx.doi.org/10.1080/15332845.2016.1084852>

Karatop, B., Kubat, C., & Uygun, O. (2015). Talent management in manufacturing system using fuzzy logic approach. *Computers & Industrial Engineering*, 86, 127-136. <http://dx.doi.org/10.1016/j.cie.2014.09.015>

Karavardar, G. (2014). Perceived organizational support, psychological empowerment, organizational citizenship behavior, job performance and job embeddedness: A research on the fast food industry in Istanbul, Turkey. *Journal of Business and Management*, 9(4), 131-139. <http://dx.doi.org/10.5539/ijbm.v9n4p131>

Katsikea, E., Theodosiou, M., & Morgan, R. E. (2015). Why people quit: Explaining employee turnover intentions among export sales managers. *International Business Review*, 24, 367-379. <http://dx.doi.org/10.1016/j.ibusrev.2014.08.009>

Kaufman, H. L., Butterfield, L. H., Coulie, P. G., Demaria, S., Ferris, R. L., Galon, J., ... Marincola, F. M. (2016). Society for immunotherapy of cancer (SITC) statement

on the proposed changes to the common rule. *Journal for ImmunoTherapy of Cancer*, 4(1), 1-3. <http://dx.doi.org/10.1186/s40425-016-0142-0>

Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relationships*. New York, NY: Wiley.

Ketokivi, M., & Choi, T. (2014). Renaissance of case research as a scientific method. *Journal of Operations Management*, 32, 232-240.  
<http://dx.doi.org/10.1016/j.jom.2014.03.004>

Khalib, L. H., Kassim, N. A., Ghazali, F. I., Jaafar, N., & Idris, A. (2015). Organizational Learning Capabilities (OLC) toward job satisfaction: A conceptual framework. *Academic Research International*, 6(2), 169-180. Retrieved from  
<http://journals.savap.org.pk/>

Khan, S. N. (2014). Qualitative research method: Grounded theory. *International Journal of Business and Management*, 9, 224-233.  
<http://dx.doi.org/10.5539/ijbm.v9n11p224>

Kiazad, K., Holtom, B. C., Hom, P. W., & Newman, A. (2015). Job embeddedness: A multifoci theoretical extension. *Journal of Applied Psychology*, 100(5), 641-659.  
<http://dx.doi.org/10.1037/a0038919>

Kirkwood, A., & Price, L. (2013). Examining some assumptions and limitations of research on the effects of emerging technologies for teaching and learning in higher education. *British Journal of Educational Technology*, 44, 534-543.  
<http://dx.doi.org/10.1111/bjet.12049>

Ko, H. J., & Kim, J. (2016). Relationships among nursing work environment, job

embeddedness, and turnover intention in nurses. *Journal of Korean Academy of Nursing Administration*, 22, 279-291.

<http://dx.doi.org/10.11111/jkana.2016.22.3.279>

Lam, L. W., & Liu, Y. (2014). The identity-based explanation of affective commitment. *Journal of Managerial Psychology*, 29, 321-340. <http://dx.doi.org/10.1108/JMP-02-2012-0036>

Lambert, E. G., Griffin, M. L., Hogan, N. L., & Kelley, T. (2014). The ties that bind: Organizational commitment and its effects on correctional orientation, absenteeism, and turnover intent. *The Prison Journal*, 95(1), 135-156.

<http://dx.doi.org/10.1177/0032885514563293>

Landers, R. N., & Behrend, T. S. (2015). An inconvenient truth: Arbitrary distinctions between organizational, mechanical Turk, and other convenience samples. *Industrial and Organizational Psychology*, 8, 142-164.

<http://dx.doi.org/10.1017/iop.2015.13>

Lancsar, E., & Swait, J. (2014). Reconceptualising the external validity of discrete choice experiments. *PharmacoEconomics*, 32, 951-965.

<http://dx.doi.org/10.1007/s40273-014-0181-7>

Leeman, J., Blitstein, J. L., Goetz, J., Moore, A., Tessman, N., & Wiecha, J. L. (2016). Developing a tool to assess the capacity of out-of-school time program providers to implement policy, systems, and environmental change. *Preventing Chronic Disease*, 13(E105), 1-9. <http://dx.doi.org/10.5888/pcd13.160105>

Li, Y., & Ahlstrom, D. (2016). Emotional stability: A new construct and its implications

- for individual behavior in organizations. *Asia Pacific Journal of Management*, 33(1), 1-28. <http://dx.doi.org/10.1007/s10490-015-9423-2>
- Lin, H., & Hwang, Y. (2014). Do feelings matter? The effects of intrinsic benefits on individuals' commitment toward knowledge systems. *Computers in Human Behavior*, 30, 191-198. <http://dx.doi.org/10.1016/j.chb.2013.07.056>
- Long, C. S., Azami, A., Kowang, T. O., & Fei, G. C. (2016). An analysis on the relationship between work family conflict and turnover intention: A case study in a manufacturing company in Malaysia. *International Business Management*, 10, 176-182. <http://dx.doi.org/10.3923/ibm.2016.176.182>
- Lonial, S. C., & Carter, R. E. (2015). The impact of organizational orientations on medium and small firm performance: A resource-based perspective. *Journal of Small Business Management*, 53(1), 94-113. <http://dx.doi.org/10.1111/jsbm.12054>
- Lu, A. C., & Gursoy, D. (2016). Impact of job burnout on satisfaction and turnover intention: Do generational differences matter? *Journal of Hospitality & Tourism Research*, 40, 210-235. <http://dx.doi.org/10.1177/1096348013495696>
- Lyons, S., & Kuron, L. (2014). Generational differences in the workplace: A review of the evidence and directions for future research. *Journal of Organizational Behavior*, 35(S1), S139-S157. <http://dx.doi.org/10.1002/job.1913>
- Madden, L., Mathias, B. D., & Madden, T. M. (2015). In good company. *Management Research Review*, 38, 242-262. <http://dx.doi.org/10.1108/MRR-09-2013-0228>
- Mahon, P. Y. (2014). Internet research and ethics: Transformative issues in nursing education research. *Journal of Professional Nursing*, 30, 124-129.



<http://dx.doi.org/10.1016/j.profnurs.2013.06.007>

Mammides, C., Goodale, U. M., Corlett, R. T., Chen, J., Bawa, K. S., Hariya, H., ...

Goodale, E. (2016). Increasing geographic diversity in the international conservation literature: A stalled process? *Biological Conservation*, *198*, 78-83.

<http://dx.doi.org/10.1016/j.biocon.2016.03.030>

Manas-Rodriguez, M. A., Alcaraz-Pardo, L., Pecino-Medina, V., & Limbert, C. (2016).

Validation of the Spanish version of Soane's ISA Engagement Scale. *Journal of Work and Organizational Psychology*, *32*, 87-93.

<http://dx.doi.org/10.1016/j.rpto.2016.04.002>

Marasi, S., Cox, S. S., & Bennett, R. J. (2016). Job embeddedness: Is it always a good

thing. *Journal of Managerial Psychology*, *31*(1), 141-153.

<http://dx.doi.org/10.1108/JMP-05-2013-0150>

Maslow, A. H. (1943). Preface to motivation theory. *Psychosomatic Medicine*, *5*(1), 85-

92. <http://dx.doi.org/10.1097/00006842-194301000-00012>

McCallum, S. Y., Forret, M. L., & Wolff, H. (2014). Internal and external networking

behavior: An investigation of relationships with affective, continuance, and normative commitment. *Career Development International*, *19*, 595-614.

<http://dx.doi.org/10.1108/CDI-08-2013-0101>

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed

methods and choice based on the research. *Perfusion*, *30*, 537-542.

<http://dx.doi.org/10.1177/0267659114559116>

McGuirk, H., Lenihan, H., & Hart, M. (2015). Measuring the impact of innovative human

- capital on small firms' propensity to innovate. *Research Policy*, *44*, 956-976.  
<http://dx.doi.org/10.1016/j.respol.2014.11.008>
- McFedries, P. (2013). *Excel data analysis: Your visual blueprint for analyzing data, charts, and pivot tables* (4th ed.). Indianapolis, IN: Visual.
- Merianos, A. L., King, K. A., & Vidourek, R. A. (2013). Body image satisfaction and involvement in risky sexual behaviors among university students. *Sexuality & Culture*, *17*, 617-630. <http://dx.doi.org/10.1007/s12119-013-9165-6>
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, *78*, 538-551. <http://dx.doi.org/10.1037//0021-9010.78.4.538>
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2013). *Applied multivariate research: Design and interpretation*. Los Angeles, CA: Sage Publications.
- Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablinski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, *44*, 1102-1121. <http://dx.doi.org/10.2307/3069391>
- Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, *89*, 493-522. <http://dx.doi.org/10.1037/0033-2909.86.3.493>
- Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology*, *63*, 408-414. <http://dx.doi.org/10.1037/0021-9010.63.4.408>

- Morokane, P., Chiba, M., & Kleyn, N. (2016). Drivers of employee propensity to endorse their corporate brand. *Journal of Brand Management*, 23(1), 55-66.  
<http://dx.doi.org/10.1057/bm.2015.47>
- Nei, D., Snyder, L. A., & Litwiller, B. J. (2015). Promoting retention of nurses: A meta-analytic examination of causes of nurse turnover. *Health Care Management Review*, 40, 237-253. <http://dx.doi.org/10.1097/hmr.0000000000000025>
- Ngai, S. S., Cheung, C., & Yuan, R. (2016). Effects of vocational training on unemployed youths' work motivation and work engagement: Mediating roles of training adequacy and self-actualization. *Children and Youth Services Review*, 63, 93-100.  
<http://dx.doi.org/10.1016/j.childyouth.2016.02.020>
- Nicholas, A., Mensah, A. O., & Owusu, N. O. (2016). Stay or leave? Using job embeddedness to explain turn over intention among hotel staff in Ghana. *Journal of Management Research*, 8(3), 123-139. Retrieved from  
<http://www.macrothink.org/journal/index.php/jmr>
- Nimon, K., Shuck, B., & Zigarmi, D. (2015). Construct overlap between employee engagement and job satisfaction: A function of semantic equivalence? *Journal of Happiness Studies*, 17, 1149-1171. <http://dx.doi.org/10.1007/s10902-015-9636-6>
- Nock, M. K., Kessler, R. C., & Franklin, J. C. (2016). Risk factors for suicide ideation differ from those for the transition to suicide attempt: The importance of creativity, rigor, and urgency in suicide research. *Clinical Psychology: Science and Practice*, 23(1), 31-34. <http://dx.doi.org/10.1111/cpsp.12133>
- Nyberg, A. J., & Ployhart, R. E. (2013). Context-emergent turnover (CET) Theory: A

theory of collective turnover. *Academy of Management Review*, 38(1), 109-131.

<http://dx.doi.org/10.5465/amr.2011.0201>

O'Keefe, A. P., Corry, M., & Moser, D. K. (2015). Measuring job satisfaction of advanced nurse practitioners and advanced midwife practitioners in the Republic of Ireland: A survey. *Journal of Nursing Management*, 23(1), 107-117.

<http://dx.doi.org/10.1111/jonm.12096>

Olawale, R., & Olanrewaju, I. (2016). Investigating the influence of financial reward on Lagos State University staff turnover intention. *European Scientific Journal*, 12(10), 161-170. <http://dx.doi.org/10.19044/esj.2016.v12n10p161>

Osman, I., Noordin, F., Daud, N., & Othman, M. Z. (2016). The dynamic role of social exchange and personality in predicting turnover intentions among professional workers. *Procedia Economics and Finance*, 35, 541-552.

[http://dx.doi.org/10.1016/S2212-5671\(16\)00067-8](http://dx.doi.org/10.1016/S2212-5671(16)00067-8)

Ouyang, Z., Sang, J., Li, P., & Peng, J. (2015). Organizational justice and job insecurity as mediators of the effect of emotional intelligence on job satisfaction: A study from China. *Personality and Individual Differences*, 76, 147-152.

<http://dx.doi.org/10.1016/j.paid.2014.12.004>

Pan, F. C. (2015). Practical application of importance-performance analysis in determining critical job satisfaction factors of a tourist hotel. *Tourism Management*, 46, 84-91. <http://dx.doi.org/10.1016/j.tourman.2014.06.004>

Pare, G., Trudel, M., Jaana, M., & Kitsiou, S. (2015). Synthesizing information systems knowledge: A typology of literature reviews. *Information & Management*, 52,

183-199. <http://dx.doi.org/10.1016/j.im.2014.08.008>

Park, T., & Shaw, J. D. (2013). Turnover rates and organizational performance: A meta-analysis. *Journal of Applied Psychology, 98*, 268-309.

<http://dx.doi.org/10.1037/a0030723>

Park, Y. G. (2014). Comments on statistical issues in September 2014. *Korean Journal of Family Medicine, 35*, 257-258. <http://dx.doi.org/10.4082/kjfm.2014.35.5.257>

Peltokorpi, V., Allen, D. G., & Froese, F. (2015). Organizational embeddedness, turnover intentions, and voluntary turnover: The moderating effects of employee demographic characteristics and value orientations. *Journal of Organizational Behavior, 32*, 292-312. <http://dx.doi.org/10.1002/job.1981>

Phiri, B. B., Ngwira, B., & Kazembe, L. N. (2016). Analysing risk factors of co-occurrence of schistosomiasis haematobium and hookworm using bivariate regression models: Case study of Chikwawa, Malawi. *Parasite Epidemiology and Control, 1*, 149-158. <http://dx.doi.org/10.1016/j.parepi.2016.02.001>

Prajogo, D. I., & Oke, A. (2016). Human capital, service innovation advantage, and business performance: The moderating roles of dynamic and competitive environments. *International Journal of Operations & Production Management, 36*, 974-994. <http://dx.doi.org/10.1108/IJOPM-11-2014-0537>

Quratulain, S., & Khan, A. K. (2015). How does employees' public service motivation get affected? A conditional process analysis of the effects of person-job fit and work pressure. *Public Personnel Management, 44*, 266-289.

<http://dx.doi.org/10.1177/0091026014568461>

- Ramamoorthy, N., Flood, P. C., Kulkarni, S. P., & Gupta, A. (2014). Individualism-collectivism and tenure intent among knowledge workers in India and Bulgaria: Moderating effects of equality perceptions and task interdependence. *Journal of High Technology Management Research*, 25, 201-209.  
<http://dx.doi.org/10.1016/j.hitech.2014.07.005>
- Rani, N., & Samuel, A. (2016). A study on generational differences in work values and person-organization fit and its effect on turnover intention of Generation Y in India. *Management Research Review*, 39, 1695-1719.  
<http://dx.doi.org/10.1108/MRR-10-2015-0249>
- Rauch, A., & Rijdsdijk, S. A. (2013). The effects of general and specific human capital on long-term growth and failure of newly founded businesses. *Entrepreneurship Theory and Practice*, 37, 923-941. <http://dx.doi.org/10.1111/j.1540-6520.2011.00487.x>
- Reuter, K. E., & Schaefer, M. S. (2016). Illegal captive lemurs in Madagascar: Comparing the use of online and in-person data collection methods. *American Journal of Primatology*, 1-9. <http://dx.doi.org/10.1002/ajp.22541>
- Rittichainuwat, B., & Rattanaphinanchai, S. (2015). Applying a mixed method of quantitative and qualitative design in explaining the travel motivation of film tourists in visiting a film-shooting destination. *Tourism Management*, 46, 136-147. <http://dx.doi.org/10.1016/j.tourman.2014.06.005>
- Robinson, R. N., Kralj, A., Solnet, D. J., Goh, E., & Callen, V. (2014). Thinking job embeddedness not turnover: Towards a better understanding of frontline hotel

worker retention. *International Journal of Hospitality Management*, 36, 101-109.

<http://dx.doi.org/10.1016/j.ijhm.2013.08.008>

Rockers, P. C., Rottingen, J., Shemilt, I., & Tugwell, P. (2015). Inclusion of quasi-experimental studies in systematic review of health systems research. *Health Policy*, 119, 511-521. <http://dx.doi.org/10.1016/j.healthpol.2014.10.006>

Rowe, F. (2014). What literature review is not: diversity, boundaries and recommendations. *European Journal of Information Systems*, 23, 241-255. <http://dx.doi.org/10.1057/ejis.2014.7>

Saane, N. V., Sluiter, J. K., Verbeek, J. A., & Frings, M. H. (2003). Reliability and validity of instruments measuring job satisfaction: A systematic review. *Occupational Medicine*, 53, 191-200. <http://dx.doi.org/10.1093/occmed/kqg038>

Salman, M., Abdullah, F., & Saleem, A. (2016). Sexual harassment at workplace and its impact on employee turnover intentions. *Business & Economic Review*, 8(1), 87-102. Retrieved from <http://imsiences.edu.pk/>

Sartor, O., & Halabi, S. (2015). Independent data monitoring committees: An update and overview. *Urologic Oncology: Seminars and Original Investigations*, 33, 143-148. <http://dx.doi.org/10.1016/j.urolonc.2014.12.013>

Savescu, R. (2015). Development of an econometric model case study: Romanian classification system. *Studies in Business and Economics*, 10(2), 160-169. <http://dx.doi.org/10.1515/sbe-2015-0027>

Schaufeli, W. B., & Bakker, A. B. (2006). The measurement of work engagement with a short questionnaire. *Educational and Psychological Measurement*, 66, 701-716.

<http://dx.doi.org/10.1177/0013164405282471>

Schmitt, A., Hartog, D., & Belschak, D. N. (2015). Is outcome responsibility at work emotionally exhausting? Investigating employee proactivity as a moderator. *Journal of Occupational Health Psychology, 20*, 491.

<http://dx.doi.org/10.1037/a0039011>

Schweizer, G., & Furley, P. (2016). Reproducible research in sport and exercise psychology: The role of sample sizes. *Psychology of Sport and Exercise, 23*, 114-122. Retrieved from [www.elsevier.com/locate/psychsport](http://www.elsevier.com/locate/psychsport)

Scott, R. E. (2015). The manufacturing footprint and the importance of U.S. manufacturing jobs (Briefing No. 388). Retrieved from <http://www.epi.org/publication/the-manufacturing-footprint-and-the-importance-of-u-s-manufacturing-jobs/>

Seaman, C. A., Seaman, J. E., & Allen, E. I. (2015). The significance of power. *Quality Progress, 48*(7), 51-53. Retrieved from <http://asq.org/qualityprogress/index.html>

Shannon-Baker, P. (2015). Making paradigms meaningful in mixed methods research. *Journal of Mixed Methods Research, 10*, 319-334.

<http://dx.doi.org/10.1177/1558689815575861>

Shapka, J. D., Domene, J. F., Khan, S., & Yang, L. M. (2016). Online versus in-person interviews with adolescents: An exploration of data equivalence. *Computers in Human Behavior, 58*, 361-367. <http://dx.doi.org/10.1016/j.chb.2016.01.016>

Sheer, V. C. (2015). Exchange lost in leader-member exchange theory and research: A critique and a reconceptualization. *Leadership, 11*, 213-229.



<http://dx.doi.org/10.1177/1742715014530935>

Shuck, B., Adelson, J. L., & Reio Jr., T. G. (2016, August). The employee engagement scale: Initial evidence for construct validity and implications for theory and practice. *Human Resource Management*, 1-25.

<http://dx.doi.org/10.1002/hrm.21811>

Shuck, B., Zigarmi, D., & Owen, J. (2015). Psychological needs, engagement, and work intentions. *European Journal of Training and Development*, 39(1), 2-21.

<http://dx.doi.org/10.1108/EJTD-08-2014-0061>

Shuhbaz, M., Khraief, N., Uddin, G. S., & Ozturk, I. (2014). Environmental Kuznets curve in an open economy: A bounds testing and causality analysis for Tunisia. *Renewable and Sustainable Energy Reviews*, 34, 325-336.

<http://dx.doi.org/10.1016/j.rser.2014.03.022>

Siller, J., Solansky, M. A., Clavelle, J. T., & Fitzpatrick, J. J. (2016). Shared governance and work engagement in emergency nurses. *Journal of Emergency Nursing*, 42, 325-330. <http://dx.doi.org/10.1016/j.jen.2016.01.002>

Simpson, E. E., Maylor, E. A., McConville, C., Stewart-Knox, B., Meunier, N., Andriollo-Sanchez, M., ... Coudray, C. (2014). Mood and cognition in healthy older European adults: The Zenith study. *BMC Psychology*, 2(1), 1-13.

<http://dx.doi.org/10.1186/2050-7283-2-11>

Sims, R. L., Ruppel, C. P., & Zeidler, P. (2016). Work strain, job satisfaction, and intention to quit: The moderating effect of long-term orientation. *International Journal of Stress Management*, 23(1), 23-43. <http://dx.doi.org/10.1037/a0039755>

- Stone, D. L., & Deadrick, D. L. (2015). Challenges and opportunities affecting the future of human resource management. *Human Resource Management Review*, 25, 139-145. <http://dx.doi.org/10.1016/j.hrmr.2015.01.003>
- Sun, Z., Strang, K., & Firmin, S. (2016). Business analytics-based enterprise information systems . *Journal of Computer Information Systems*, 57, 169-178. <http://dx.doi.org/10.1080/08874417.2016.1183977>
- SurveyMonkey. (2016a). Security statement. Retrieved from <https://www.surveymonkey.com/mp/policy/security/>
- SurveyMonkey. (2016b). SurveyMonkey Audience. Retrieved from [http://help.surveymonkey.com/articles/en\\_US/kb/SurveyMonkey-Audience](http://help.surveymonkey.com/articles/en_US/kb/SurveyMonkey-Audience)
- SurveyMonkey. (2016c). SurveyMonkey Contribute. Retrieved from [http://help.surveymonkey.com/articles/en\\_US/kb/SurveyMonkey-Contribute](http://help.surveymonkey.com/articles/en_US/kb/SurveyMonkey-Contribute)
- Tangthong, S., Trimestoontorn, J., & Rojniruntikul, N. (2014). Practices and employee retention in Thailand - A literature review. *International Journal of Trade, Economics and Finance*, 5, 162-166. <http://dx.doi.org/10.7763/IJTEF.2014.V5.362>
- Tangthong, S., Trimetsoontorn, J., & Rojniruttikul, N. (2015). The effects of human resource practices on firm performance in Thailand's manufacturing industry. *Journal for Global Business Advancement*, 8(1), 84-117. <http://dx.doi.org/10.1504/jgba.2015.067280>
- Tate, G., & Yang, L. (2015). The bright side of corporate diversification: Evidence from internal labor markets. *The Review of Financial Studies*, 28, 2203-2249.

<http://dx.doi.org/10.1093/rfs/hhv012>

Terera, S. R., & Ngirande, H. (2014). The impact of rewards on job satisfaction and employee retention. *Mediterranean Journal of Social Sciences*, 5, 481-487.

<http://dx.doi.org/10.5901/mjss.2014.v5n1p481>

Top, M., Akdere, M., & Tarcan, M. (2015). Examining transformational leadership, job satisfaction, organizational commitment and organizational trust in Turkish hospitals: Public servants versus private sector employees. *The International Journal of Human Resource Management*, 29, 1259-1282.

<http://dx.doi.org/10.1080/09585192.2014.939987>

Treuren, G. J., & Frankish, E. (2014). Pay dissatisfaction and intention to leave. *Nonprofit Management and Leadership*, 25(1), 5-21.

<http://dx.doi.org/10.1002/nml.21108>

Umamaheswari, S., & Krishnan, J. (2015). Retention factors and their relative significance in ceramic manufacturing industries in India. *Asian Social Science*, 11(13), 260-268. <http://dx.doi.org/10.5539/ass.v11n13p260>

Umans, T., Broberg, P., Schmidt, M., Nilsson, S., & Olsson, E. (2016). Feeling well by being together: Study of Swedish auditors. *Work*, 54(1), 79-86.

<http://dx.doi.org/10.3233/wor-162270>

United States Environmental Protection Agency. (2016). About EPA 4 (Southeast).

Retrieved from <http://www.epa.gov/aboutepa/about-epa-region-4-southeast>

Unver, M., & Erdogan, M. (2015, April). Social effects of foreign direct investments: International empirical evidences for education, health and social security.

- International Research Journal of Finance and Economics*, 132, 7-19. Retrieved from <http://www.internationalresearchjournaloffinanceandeconomics.com/>
- Upadhayay, L., & Vrat, P. (2016). An ANP based selective assembly approach incorporating Taguchi's quality loss function to improve quality of placement in technical institutions. *The TQM Journal*, 28(1), 112-131.  
<http://dx.doi.org/10.1108/TQM-06-2014-0054>
- Uprichard, E. (2013). Sampling: Bridging probability and non-probability designs. *International Journal of Social Research Methodology*, 16(1), 1-11.  
<http://dx.doi.org/10.1080/13645579.2011.633391>
- Van Kooten, J., Binnekade, T. T., Van der Wooden, J. C., Stek, M. L., Scherder, E. J., Husebo, B. S., ... Hertogh, C. M. (2016). A review of pain prevalence in Alzheimer's, vascular, frontotemporal and lewy body dementias. *Dementia and Geriatric Cognitive Disorders*, 41, 220-232. <http://dx.doi.org/10.1159/000444791>
- Vasantham, T. S., & Swarnalatha, C. (2015). Importance of employee retention. *International Journal of Research in Finance and Marketing*, 5(8), 7-9. Retrieved from <http://sjifactor.com/passport.php?id=17123>
- Vasquez, D. (2014). Employee retention for economic stabilization: A qualitative phenomenological study in the hospitality sector. *International Journal of Management, Economics and Social Sciences*, 3(1), 1-17. Retrieved from <http://www.ijmess.com/>
- Venkatesh, V., Brown, S. A., & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information

systems. *MIS Quarterly*, 37, 21-54.

<http://dx.doi.org/10.1016/j.evalprogplan.2015.07.008>

Verdam, M. E., Oort, F. J., & Sprangers, M. G. (2014). Significance, truth, and proof of p values: Reminders about common misconceptions regarding null hypothesis significance testing. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care & Rehabilitation*, 23(1), 5-7.

<http://dx.doi.org/10.1007/s11136-013-0437-2>

Voyer, S. D., & Voyer, D. (2015). Laterality, spatial abilities, and accident proneness. *Journal of Clinical and Experimental Neuropsychology*, 37(1), 27-36.

<http://dx.doi.org/10.1080/13803395.2014.985191>

Wai, P. Y., & Brubaker, L. (2014). Engagement, workplace satisfaction, and retention of surgical specialists in academic medicine in the United States. *Journal of the American College of Surgeons*, 219(1), 31-42.

<http://dx.doi.org/10.1016/j.jamcollsurg.2014.03.027>

Wang, X., Fang, Y., Qureshi, I., & Janssen, O. (2015). Understanding employee innovative behaviour: Integrating the social network and leader-member exchange perspectives. *Journal of Organizational Behavior*, 36, 403-420.

<http://dx.doi.org/10.1002/job.1994>

Welch, B. M., O'Connell, N., & Schiffman, J. D. (2015). 10 years later: Assessing the impact of public health efforts on the collection of family health history. *American Journal of Medical Genetics Part A*, 167, 2026-2033.

<http://dx.doi.org/10.1002/ajmg.a.37139>

- Wiebe, E. R., Littman, L., & Kaczorowski, J. (2015). Knowledge and attitudes about contraception and abortion in Canada, US, UK, France, and Australia. *Gynecology & Obstetrics*, 5(9), 1-9. <http://dx.doi.org/10.4172/2161-0932.1000322>
- Williams, R., & Bornmann, L. (2016). Sampling issues in bibliometric analysis: Response to discussants. *Journal of Informetrics*, 10, 1253-1257. <http://dx.doi.org/10.1016/j.joi.2016.09.013>
- Wohlin, C., & Aurum, A. (2015). Towards a decision-making structure for selecting a research design in empirical software engineering. *Empirical Software Engineering*, 20, 1427-1455. <http://dx.doi.org/10.1007/s10664-014-9319-7>
- Wong, C. A., & Laschinger, H. K. (2015). The influence of frontline manager job strain on burnout, commitment and turnover intention: A cross-sectional study. *International Journal of Nursing Studies*, 52, 1824-1833. <http://dx.doi.org/10.1016/j.ijnurstu.2015.09.006>
- Wong, Y., Wong, Y., & Wong, C. (2015). An integrative model of turnover intention: Antecedents and their effects on employee performance in Chinese joint ventures. *Journal of Chinese Human Resource Management*, 6(1), 71-90. <http://dx.doi.org/10.1108/JCHRM-06-2014-0015>
- Word, J., & Park, S. M. (2015). The new public service? Empirical research on job choice motivation in the nonprofit sector. *Personnel Review*, 44(1), 91-118. <http://dx.doi.org/10.1108/pr-07-2012-0120>
- Wouters, K., Maesschalck, J., Peeters, C. F., & Roosen, M. (2014). Methodological

issues in the design of online surveys for measuring unethical work behavior: Recommendations on the basis of a split-ballot experiment. *Journal of Business Ethics*, 120, 275-289. <http://dx.doi.org/10.1007/s10551-013-1659-5>

Wright, P. M., Coff, R., & Moliterno, T. P. (2014). Strategic human capital: Crossing the great divide. *Journal of Management*, 40, 353-370.

<http://dx.doi.org/10.1177/0149206313518437>

Yahyagil, M. Y. (2015). Values, feelings, job satisfaction and well-being: The Turkish case. *Management Decision*, 53, 2268-2286. <http://dx.doi.org/10.1108/MD-10-2014-0609>

Yalcin, K., Tatoglu, E., & Zaim, S. (2016). Developing an instrument for measuring the effects of heuristics on investment decisions. *Kybernetes*, 45, 1052-1071.

<http://dx.doi.org/10.1108/K-05-2015-0130>

Yan, Z., Wang, T., Chen, Y., & Zhang, H. (2016). Knowledge sharing in online health communities: A social exchange theory perspective. *Information & Management*, 53, 643-653. <http://dx.doi.org/10.1016/j.im.2016.02.001>

Yanagida, T., Strohmeier, D., & Spiel, C. (2016, November 10). Dynamic change of aggressive behavior and victimization among adolescents: Effectiveness of the ViSC program. *Journal of Clinical Child & Adolescent Psychology*, 1-15.

<http://dx.doi.org/10.1080/15374416.2016.1233498>

Yang, K., & Banamah, A. (2013). Quota sampling as an alternative to probability sampling? An experimental study. *Sociological Research Online*, 19(1), 1-11.

<http://dx.doi.org/10.5153/sro.3199>

- Yarbrough, S., Martin, P., & Alfred, D. (2016, August). Professional values, job satisfaction, career development, and intent to stay. *Nursing Ethics*, 1-11.  
<http://dx.doi.org/10.1177/0969733015623098>
- Yoon, D. J., & Bono, J. E. (2016). Hierarchical power and personality in leader-member exchange. *Journal of Managerial Psychology*, 31, 1198-1213.  
<http://dx.doi.org/10.1108/JMP-03-2015-0078>
- Yu, M., & Kang, K. J. (2016). Factors affecting turnover intention for new graduate nurses in three transitional periods for job and work environment satisfaction. *The Journal of Continuing Education in Nursing*, 47, 120-131.  
<http://dx.doi.org/10.3928/00220124-20160218-08>
- Yusof, H. M. (2016). Unleashing the power of emotional competency development program on leaders' self-motivation. *Asian Social Science*, 12(5), 64-73.  
<http://dx.doi.org/10.5539/ass.v12n5p64>
- Zopiatis, A., Constanti, P., & Theocharous, A. L. (2014). Job involvement, commitment, satisfaction and turnover: Evidence from hotel employees in Cyprus. *Tourism Management*, 41, 129-140. <http://dx.doi.org/10.1016/j.tourman.2013.09.013>
- Zou, Q., Zeng, J., Cao, L., & Ji, R. (2016). A novel features ranking metric with application to scalable visual and bioinformatics data classification. *Neurocomputing*, 173, 346-354. <http://dx.doi.org/10.1016/j.neucom.2014.12.123>



## Appendix A: Andrews and Withey's Job Satisfaction Questionnaire

Please indicate how you feel about your job using the following scale:

*1 = terrible; 2 = unhappy; 3 = mostly dissatisfied; 4 = mixed; 5 = mostly satisfied; 6 = pleased; 7 = delighted*

1. How do you feel about your job?
2. How do you feel about the people you work with – your co-workers?
3. How do you feel about the work you do on your job – the work itself?
4. What is it like where you work – the physical surroundings, the hours, the amount of work you are asked to do?
5. How do you feel about what you have available for doing your job – meaning the equipment, information, good supervision, and so on?

## Appendix B: Crossley, Bennett, Jex, and Burnfield's Global Job Embeddedness Scale

Please indicate the degree of your agreement or disagreement with each statement by checking a number from 1 to 5 using the scale below.

*1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree*

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. I feel attached to this organization.                      | 1 | 2 | 3 | 4 | 5 |
| 2. It would be difficult for me to leave this organization.   | 1 | 2 | 3 | 4 | 5 |
| 3. I'm too caught up in this organization to leave.           | 1 | 2 | 3 | 4 | 5 |
| 4. I feel tied to this organization.                          | 1 | 2 | 3 | 4 | 5 |
| 5. I simply could not leave the organization that I work for. | 1 | 2 | 3 | 4 | 5 |
| 6. I am tightly connected to this organization.               | 1 | 2 | 3 | 4 | 5 |

## Appendix C: Mobley, Horner, and Hollingsworth's Intent to Stay Scale

Please indicate the degree of your agreement or disagreement with each statement by checking a number from 1 to 5 using the scale below.

*1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree*

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. I often think of leaving the organization.                       | 1 | 2 | 3 | 4 | 5 |
| 2. I intend to look for a new job within the next year.             | 1 | 2 | 3 | 4 | 5 |
| 3. If I could choose again, I would not work for this organization. | 1 | 2 | 3 | 4 | 5 |

## Appendix D: Andrews and Withey Instrument Permission Request

**From:** Angie Skelton [mailto:e-mail address redacted]  
**Sent:** Wednesday, November 2, 2016 11:12 PM  
**To:** Dail Fields <e-mail address redacted>  
**Subject:** Permission to Use

Dr. Fields,

I am a doctoral candidate at Walden University. I am conducting a study titled *Predicting Manufacturing Employee Turnover Intentions Utilizing Employee Job Satisfaction and Job Embeddedness*. I am writing in an effort to gain permission to use the Andrews and Withey job satisfaction scale as one of the instruments for my doctoral study. You mentioned this measurement in your book *Taking the Measure of Work: A Guide to Validated Scales for Organizational Research and Diagnosis*. Since both Frank Andrews and Stephen Withey are now deceased, could you direct me as to whom I might contact to gain permission to use this scale for my study. Any information you could provide me would be appreciated.

Thank you in advance,  
Angie Skelton  
E-mail: redacted

**From:** Dail Fields  
**Sent:** Thursday, November 3, 2016  
**To:** Angie Skelton  
**Subject:** Permission to Use

Angie:

As long as you will be using any of the scale measures in my book for non-revenue academic purposes, such as dissertation research, it is my understanding that they may be used without prior permission. If you were to reprint the scale measures in a profit-making venture, such as a book, you would need to obtain and purchase reprint permission (as I did).

Best wishes for a successful dissertation.

Dail Fields, PhD  
Professor of Organizational Leadership  
Regent University School of Business and Leadership  
1000 Regent University Drive, Virginia Beach, VA 23464

## Appendix E: Permission to Use Crossley, Bennett, Jex, and Burnfield's (2007) Global

## Job Embeddedness Scale

**From:** Angie Skelton [mailto: redacted]  
**Sent:** Thursday, November 03, 2016 12:07 AM  
**To:** Craig Crossley <e-mail address redacted>  
**Subject:** Permission to Use

Dr. Crossley,  
I am a doctoral candidate at Walden University. I am conducting a study titled *Predicting Manufacturing Employee Turnover Intentions Utilizing Employee Job Satisfaction and Job Embeddedness*. I am writing in an effort to gain permission to use the 7-question global job embeddedness scale introduced by Crossley, Bennett, Jex, and Burnfield in 2007. It is my intent to utilize the 5-point Likert-type scale originally used to examine the responses, where low scores indicate strong disagreement and high scores indicate strong agreement.

If you do not mind me using this scale in its original form for my study, would you please let me know? I sincerely appreciate your consideration. You can reach me at [e-mail address redacted] or via phone at [redacted] if you have any questions.

Thank you in advance,  
Angie Skelton

Crossley, C. D., Bennett, R. J., Jex, S. M., & Burnfield, J. L. (2007). Development of a global measurement of job embeddedness and integration into a traditional model of voluntary turnover. *Journal of Applied Psychology*, 92, 1031-1042.  
<http://dx.doi.org/10.1037/0021-9010.92.4.1031>

**From:** C.D. Crossley  
**Sent:** Thursday, November 03, 2016  
**To:** Angie Skelton  
**Subject:** Permission to Use

Hi Angie,  
Yes, please feel free to use the scale.  
I hope it makes all your hypotheses come true ☐  
Good luck with your research.  
Craig

## Appendix F: Permission to Use Mobley, Horner, and Hollingsworth's (1978) Turnover

## Intent Instrument

**To:** Sherry Gong  
**Sent:** Thursday, November 03, 2016  
**From:** Angie Skelton  
**Subject:** Dr. Mobley's Contact Information

Ms. Gong,

I am a doctoral candidate at Walden University. I am looking for Dr. Mobley's email address. He and two other scholars (Horner and Hollingsworth) introduced a questionnaire in 1978 that addressed turnover intent. I would like to ask Dr. Mobley for permission to use three questions I pulled from the questionnaire for my current doctoral study. Would it be possible for you to direct me to Dr. Mobley or forward to me his email address? I greatly appreciate any help you might provide.

Sincerely,

Angie Skelton  
E-mail: redacted  
Phone: redacted

Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. *Journal of Applied Psychology*, 63, 408-414. <http://dx.doi.org/10.1037/0021-9010.63.4.408>

William Mobley  
redacted

**From:** William Mobley  
**Sent:** Friday, November 04, 2016  
**To:** Angie Skelton and Sherry Gong  
**Subject:** Dr. Mobley's Contact Information

Dear Angie,

Thanks for the note, that my colleague Sherry Gong has forwarded to me. You have my permission to use the intention scale.

Best wishes with your research.  
Bill  
William H. Mobley, Ph.D.

Chairman, Mobley Group Pacific Ltd.  
Shanghai & Hong Kong