

2021

## Relationship Between Employee Perception of Work Experience, Employee Perception of Supervisors, and Intent to Leave

Kathryn F. Denning  
*Walden University*

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>



Part of the [Business Commons](#), and the [Public Administration Commons](#)

---

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact [ScholarWorks@waldenu.edu](mailto:ScholarWorks@waldenu.edu).

# Walden University

College of Management and Technology

This is to certify that the doctoral study by

Kathryn F. Sevigny Denning

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

## Review Committee

Dr. Michael Lavelle, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Edgar Jordan, Committee Member, Doctor of Business Administration Faculty

Dr. Thomas Schaefer, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer and Provost  
Sue Subocz, Ph.D.

Walden University  
2021

Abstract

Relationship Between Employee Perception of Work Experience, Employee Perception  
of Supervisors, and Intent to Leave

by

Kathryn F. Sevigny Denning

MBA, Excelsior College, 2016

BS, Excelsior College, 2014

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

Walden University

December 2021

## Abstract

Employee turnover can be costly; estimates for recruiting and training new hires are between 90% and 200% of the employee's annual salary. Understanding employee intent to leave is critical for managers to reduce turnover rates. Grounded in Herzberg's two-factor model, the purpose of this quantitative correlational study was to examine the relationship between federal government agency employees' perception of their work experience, employee perception of supervisors, and employee intent to leave. Secondary data from 359,120 completed surveys from the 2020 Federal Employee Viewpoint Survey (FEVS) were analyzed. The results of the binary logistic regression were significant,  $X^2(359,120) = 17609.539, p < .001$ . In the final model, only employee perception of work experience was significant ( $p < .001, \beta = -.162$ ). A key recommendation is for managers to keep communication lines open with their employees to continue to provide positive work experiences. The implication for positive social change includes the potential for managers to improve work experience and strengthen an organization's workforce, thus benefiting local economics by stabilizing income and improving long-term wealth.

Relationship Between Employee Perception of Work Experience, Employee Perception  
of Supervisors, and Intent to Leave

by

Kathryn F. Sevigny Denning

MBA, Excelsior College, 2016

BS, Excelsior College, 2014

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

Walden University

December 2021

## Dedication

My study is dedicated to my father, Raymond Sevigny, and my mother, Patricia Sevigny, who have since passed as I was working through my studies. They always believed in me and told me I could accomplish what I set my mind to do.

I would also like to dedicate this study to my children, Senaa, Emaan, Elias, Teranim, Samira, Caleb, Hannah, Naseem, Joshua. And my husband, Gerald Denning, and my brother, David Sevigny. Your support and encouragement as I studied were invaluable. And to God who makes all things possible.

## Acknowledgments

I would first like to thank my family and friends for their tremendous support, encouragement, and patience during my doctoral journey. I want to acknowledge all the chairpersons for providing guidance and feedback throughout my doctoral study. My chair Dr. Lavelle helped keep me focused through the lengthy literature review section, my second chair Dr. Ed Jordan, provided excellent feedback. The statistics professors Dr. Zin, Dr. Taylor, and Dr. Ozcan for guidance through the quantitative analysis and interpretation. I would also like to thank my reviewer, and all my doctoral colleagues for their help and support.

## 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.....	2
Nature of the Study .....	3
Research Question and Hypothesis.....	4
Theoretical Framework.....	4
Operational Definitions.....	5
Assumptions, Limitations, and Delimitations.....	5
Assumptions.....	5
Limitations .....	6
Delimitations.....	6
Significance of the Study .....	6
Value to Businesses .....	7
Positive Social Change .....	8
A Review of the Professional and Academic Literature.....	8
Herzberg Two-Factor Theory of Motivation .....	10
Predictor Variable of Employee Perception of the Work Experience .....	17

Predictor Variable of Employee Perception of Supervisors .....	20
Criterion Variable of Employee Intent to Leave .....	24
Current Research Using the Two-Factor Theory.....	29
Supporting Theories.....	32
Alternative Theories.....	33
Job Satisfaction and Intent to Leave .....	34
Measurement of Variables .....	38
Transition .....	38
Section 2: The Project.....	40
Purpose Statement.....	40
Role of the Researcher .....	41
Participants.....	41
Research Method and Design .....	42
Research Method .....	42
Research Design.....	43
Population and Sampling .....	43
Ethical Research.....	45
Data Collection Instruments .....	46
Concept Measured by Federal Employee Viewpoint Survey.....	46
Data that Comprise each Variable with Scales of Measurement.....	47
Appropriateness of the Federal Employee Viewpoint Survey for Quantitative Research .....	48

Federal Employee Viewpoint Survey Reliability and Validity Strategies.....	50
Data Collection Technique .....	51
Data Analysis .....	52
Study Validity .....	53
Reliability of the Instrument .....	54
Data Assumptions .....	54
Sample Size.....	55
Transition and Summary .....	55
Section 3: Application to Professional Practice and Implications for Change .....	56
Introduction.....	56
Presentation of the Findings.....	56
Evaluation of Statistical Assumptions .....	57
Descriptive Statistics.....	57
Inferential Statistical Analyses Results.....	60
Applications to Professional Practice .....	64
Implications for Social Change.....	65
Recommendations for Action .....	65
Positive Work Culture.....	66
Employee Career Development .....	66
Connectivity and Communication .....	67
Employee Feedback .....	67
Recommendations for Further Research.....	67

Reflections .....	68
Conclusion .....	69
References.....	70
Appendix A: FEVS Question Alignment to Study Variables.....	94

List of Tables

Table 1 *Sources Used in The Study*.....9

Table 2 *Quantitative Study Variables and their Measurements*.....58

Table 3 *Means and Standard Deviations for Quantitative Study Variables*.....59

Table 4 *Logistic Regression Predicting the Likelihood of Employee Intent to  
Leave based on Employee Perception of Work Experience and Supervisors*.....62

List of Figures

Figure 1. *Intent to Leave Frequency*.....60

## Section 1: Foundation of the Study

A view of employee perceptions of their work and supervisors may help managers influence strategies to create a productive organization. Retaining trained employees is part of that equation. An organization's estimated cost to recruit and train a mid-level employee is up to 150% of their annual salary (Vinerean, 2015). Replacing a highly trained employee can be double that price (Lee et al., 2018). Some managers may not understand the relationship between employee perspectives and employee intent to leave.

Employee intent to leave causes problems with individual employees and whole teams. Job satisfaction can decrease employee intent to leave (Kantek & Kaya, 2017). According to Herzberg et al. (1959), intrinsic and extrinsic job factors influence job satisfaction. If managers understand their employees' perspectives on job satisfaction, they can alter certain job aspects to create a positive work environment to lower intent to leave. In my study, I examined the relationship between the intrinsic variable of employee perception of work experience and the extrinsic variable of employee perception of supervisors to the criterion variable of employee intent to leave.

### **Background of the Problem**

Intent to leave lowers productivity (Nair & Salleh, 2017). Additionally, employee intent to leave also increases turnover rates (Aho, 2020). The resulting loss of trained employees costs a company because it takes more resources to train new workers than retain current workers (Gevrek et al., 2017). Furthermore, the hiring, training, and onboarding of new staff can be expensive. The estimate for recruiting and training new hires is between 90% and 200% of the employee's annual salary (Lee et al., 2018). Thus,

employee perspectives on job elements leading to intent to leave could help managers understand why employees leave their jobs. Intent to leave based on employee perspectives is an area under investigation to lower trained employees' loss (Arfat, 2017).

### **Problem Statement**

Employee intent to leave is costly to an organization; managers need tools to combat this issue (Aho, 2020). The cost of recruiting and training new employees ranges from 93% to 200% of the employee's annual salary (De Oliveira et al., 2019). The general business problem is that employee intent to leave can harm an organization. The specific business problem is that some managers in federal government agencies do not know the relationship between employee perception of their work experience, employee perception of supervisors, and employee intent to leave.

### **Purpose Statement**

The purpose of this quantitative correlational study was to examine the relationship between federal government agency employees' perception of their work experience, employee perception of supervisors, and employee intent to leave. The study's predictor variables were government agency employees' perception of their work experience and employee perception of supervisors. The criterion variable was employee intent to leave. The targeted population was federal employees of the United States who participated in the Federal Employee Viewpoint Survey 2020. The implications for positive social change include creating awareness of predictors from employee perceptions that affected employee intent to leave. This knowledge may help managers craft strategies to support positive employee perceptions, increase employee

retention, stabilize an organization's workforce, and add to long-term wealth for surrounding communities.

### **Nature of the Study**

I chose the quantitative research method for this study because it is a statistical means to examine the relationship among variables. The quantitative method works well with statistical data from validated instruments (Saunders & Bezzina, 2015). The qualitative method is used to focus on the participant's individual experience using open-ended questions (Marshall & Rossman, 2016). The qualitative method was not appropriate, as the study did not include interviews. The mixed-methods approach applies to research combining qualitative and quantitative methods using interpretive and statistical perspectives (Saunders et al., 2016). The mixed-methods approach was not suitable because of the qualitative component. The purpose of my study was to examine the relationships of two predictor variables and one criterion variable from numerical data to derive an analysis of the research question. Therefore, I chose the quantitative method because I used numerical data to answer the research question.

I used the correlational design for this study. Other approved research designs for quantitative research include experimental and quasi-experimental (Turner et al., 2013). The correlational design I chose is used to address variables as predictors. The experimental or quasi-experimental design was not appropriate as these designs use independent variable manipulation (Zakharov et al., 2016). I decided on the correlational design because I examined the relationship of variables. The research design should fit

the research question addressed in a study (Saunders et al., 2016). Therefore, my study was correlational.

### **Research Question and Hypothesis**

Research Question (RQ): What is the relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave?

Null Hypothesis ( $H_0$ ) There is no significant relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave.

Alternative Hypothesis ( $H_1$ ) There is a significant relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave.

### **Theoretical Framework**

Herzberg et al. (1959) developed the two-factor theory. Herzberg et al. explained employee motivation with the two-factor theory (Ziar et al., 2017). The two major factors of the two-factor theory are hygiene and motivation factors. Hygiene elements are extrinsic and present in the job, such as work conditions. Hygiene factors may cause dissatisfaction if not present positively, such as a safe work environment. The other factor is motivation; this factor is intrinsic and may add to job satisfaction. An example of a tenet of this factor is recognition at work (Locke & Schattke, 2018). In this study, I applied the motivation variable of employee perception of their work experience and the hygiene variable of employee perception of their supervisors. I examined employee

perception of their work experience and employee perception of supervisors to see how they relate to the issue of employee intent to leave.

### **Operational Definitions**

*Hygiene factors:* Extrinsic factors are physical conditions or rewards such as salary, supervisors, work conditions, and benefits: Factors influencing job dissatisfaction (Hur, 2018).

*Intent to leave:* Employees plan to leave their work within a year for a different job, organization, or career (Winters, 2019).

*Job satisfaction:* Intrinsic and extrinsic job factors positively influence an employee's feelings and motivation concerning their job (Herzberg et al., 1959).

*Motivation factors:* Intrinsic factors that can add to job satisfaction, such as achievement, work itself, and responsibility at work (Hur, 2018).

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

#### **Assumptions**

Assumptions are facets of the study that researchers consider correct (Armstrong & Kepler, 2018). In this study, I assumed that the participants answered the Federal Employee Viewpoint survey truthfully. I also assumed that the participants' answers were not misleading due to pressure from their job. As federal employees who participate in this survey annually, the participants should be comfortable that their responses do not affect their work-life.

**Limitations**

Limitations are aspects that may be beyond the researcher's control and are present in all research (Theofanidis & Fountouki, 2018). Intent to leave may be different from a federal employee's viewpoint than for employees in private sector industries; therefore, the results may not be transferable to other organizations. The participants might not have been entirely truthful in their survey answers if they perceived that the results could affect their job security or upset their manager.

**Delimitations**

Delimitations are the elements of a study set by the researcher to give boundaries to the study (Lo, 2016). A delimitation in the research was that the participants are all federal employees of the United States Government. The study's final delimitation was that all the data are from the U. S. Federal Employee Viewpoint Survey 2020. Therefore, the results may not apply to government workers in other countries.

**Significance of the Study**

Employee intent to leave is an issue that organizations encounter (Haider et al., 2019). Intent to leave impacts productivity and job satisfaction (Haider et al., 2019; Jarupathirun & De Gennaro, 2018). Managers seek lower employee intent to leave to optimize organizational job satisfaction (Jarupathirun & De Gennaro, 2018). Studies of employee intent to leave may add to an organization's knowledge of this issue to plan for ways to counter losing valuable trained employees.

**Value to Businesses**

The findings of the study may be of value to businesses generally and governmental agencies in particular. The findings may provide a practical model to better understand the relationship between employee perception of their work experience, employee perception of supervisors, and employee intent to leave. A predictive model can aid managers in predicting intent to leave, which may lead to maximizing productivity. Knowledge is used to fill in the gaps for managers as they plan to engage employees in such activities as brainstorming sessions, team building, and motivating employee ownership of their jobs. Managers can gain employee input, which will aid them in improving employee morale and retention.

**Improvement to Business Practice**

The study may positively impact business practice by improving the understanding of the relationship between employee perception of their work experience, employee perceptions of supervisor support, and employee intent to leave. Intent to leave can affect organizational productivity and organizational performance (Guchait et al., 2015). Minimizing employee intent to leave may be a part of the equation to improve productivity; lowering employee intent to leave can retain knowledge capital and save the expense used to hire and train new employees. A greater understanding from managers could lead to more effective methods to engage employees, so they feel like a valuable part of their organization.

### **Positive Social Change**

The implications for positive social change may include increased productivity in organizations resulting from understanding how employee perceptions affect employee intent to leave. Managers could use knowledge of employee perceptions to craft strategies to increase employee retention. Positive employee perceptions that lead to a decrease in intent to leave may create a more stable workforce. An organization's workforce's stability might contribute to positive social change by adding to the long-term wealth of surrounding communities.

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

The literature review is a synthesis and analysis of current literature related to the supporting theory and the study variables. The literature review topic areas include the theoretical framework and conceptual model, predictor variables, criterion variable, current research using the study theory, supporting and alternate theories, and measurement of variables. The study resources are peer-reviewed journals, books, and articles, with 72% of the publication date from 2017 to 2021. My literature review also includes articles concerning the two-factor motivation theory by Herzberg et al. (1959); this theory is often tested in research and has proved helpful in various quantitative studies (Ann & Blum, 2020; Matla & Xaba, 2019; Woodworth, 2016). The literature review databases include ABI-INFORM Complete, Academic Search Complete, Business Source Complete, Google Scholar, and ProQuest Central. I chose the following keywords for the primary searches: *Herzberg two-factor theory, hygiene factor,*

*motivation factor, intent to leave, supervisor, work itself, employee perception, intrinsic and extrinsic factors, and business management.*

I selected 149 sources for the literature review. References with a publication date of 2017 or later represent 72% of the total sources. Table 1 further separates my resources into categories.

**Table 1**

*Sources Used in The Study*

Source	Prior to 2016	2017-2021 (72%)	Total
Peer-reviewed articles	34	106	140
Books	8	0	8
Dissertations	0	1	1
Totals	42	107	149

The Herzberg two-factor theory contains an extrinsic hygiene factor and an intrinsic motivating factor (Herzberg et al., 1959); in the following section, I review the themes related to the two types of factors. I also address the theory's specific tenets, such as the work itself and employee perception of supervisors. Alternate theories reviewed include Maslow's hierarchy of needs and McClelland's motivation theory, and the following opposing theories: Vroom's expectancy theory and Porter and Lawler's expectancy theory.

The purpose of this quantitative study was to examine the relationship between employee perceptions of work experience and employee perceptions of supervisors with

employee intent to leave. I reviewed the literature about the effect of employee intent to leave on organizations, including government organizations. I also investigated employee intent to leave and how employee perceptions correlate with job satisfaction factors. In this study, I answered the following research question:

RQ: What is the relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave?

*H<sub>0</sub>*: There is no significant relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave.

*H<sub>1</sub>*: There is a significant relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave.

### **Herzberg Two-Factor Theory of Motivation**

Herzberg's theory of motivation concerns job satisfaction and has two types of factors: hygiene and motivation. According to Herzberg et al. (1959), the two-factor theory is applied by improving the hygiene factor and promoting the motivation factor. The hygiene factor tenets include the perception of supervisors, co-worker relationships, salaries, and company policies (Herzberg et al., 1959). The motivation factor tenets consist of the work itself, achievement, recognition, and personal growth (Herzberg et al., 1959).

Herzberg et al. first proposed the two-factor theory in their book, *The Motivation to Work*, published in 1959. Initially, Herzberg et al. (1959) collected data from two hundred Pittsburgh engineers and accountants. The participants answered questions about what pleased or displeased them about their work (Herzberg et al., 1959). After analyzing the data, Herzberg et al. (1959) concluded that there were two sets of needs, and from this, formed the two-factor theory of motivation. The two-factor theory promulgated by Herzberg and colleagues is now widely used in management research (Ann & Blum, 2020). The theory highlights the two predictor variables of the theory, the hygiene factor and the motivation factor.

Consequently, the two factors either affect or do not affect the dependent variable under investigation (Herzberg et al., 1959). Before Herzberg et al. (1959) the traditional theory was that job satisfaction had a single continuum, and participants landed on the positive or negative side (Brockman, 1971). However, Herzberg et al. (1959) brought in the concept of two continua; one for satisfiers and one for job dissatisfiers. The concept of two continua gives a balanced view of a job's merits (Brockman, 1971). In the following sections, I will discuss the two factors of hygiene and motivation in greater detail.

### ***Hygiene Factor***

One of the two independent or predictor variables in the Herzberg two-factor theory is the hygiene variable. The hygiene variable is the extrinsic factor that influences dissatisfaction (Herzberg et al., 1959). Some examples of the hygiene factor tenets are interpersonal relations with peers, interpersonal relations with supervisors, status, salary,

and policy (Fareed & Jan, 2016; Herzberg et al., 1959; Zhong et al., 2020). These conditions are external and can decrease employees' job satisfaction. The Herzberg two-factor theory helps examine the hygiene factor's tenets to investigate employees' viewpoints (Herzberg et al., 1959). Understanding the hygiene factor may be helpful to managers.

The hygiene factor can influence employee job satisfaction. Kotni and Karumuri (2018) showed that hygiene factors caused greater job satisfaction than motivation factors among participants. Another example concerning volunteers Lamb and Ogle (2019) showed that placing positive hygiene factors into a volunteer's work made it less likely for volunteer staff to be dissatisfied with their experience. Since the hygiene factor is a predominant predictor of job satisfaction (Herzberg et al., 1959), the more data available to managers about employees, the more excellent knowledge managers have to make positive changes (Byrne et al., 2017). Identification of hygiene factors that managers could alter may be vital for an organization.

**Interpersonal Relations with Peers.** Perceptions of coworkers or colleagues is a tenet of the hygiene factor explored in the Herzberg theory. In the results of a study by Samanez and Medina (2017), coworkers' relationships were highly motivating. Samanez and Medina (2017) concluded that employees valued their collegial relationships above the motivations of status and company policy. Coworkers can add to an organization's culture, creating a positive work environment.

Negative perceptions of coworkers can also be an issue. Managers should eliminate dissatisfaction in coworkers' relationships to improve job satisfaction (Slimane,

2017). Even in management positions, staff relationships were among the most significant influences to stay in at a job (Cox, 2019). Since employees spend a large portion of the week with coworkers, the hygiene element of coworkers may be a key area of concern.

**Interpersonal Relations with Supervisors.** Supervision is also a tenet of the hygiene factor that involves relationships. Samanez and Medina (2017) found that supervisors can motivate employees. For example, workers relate motivation to management practices (Shannon, 2019). As a result, supervision would be an area where management can examine employee perceptions.

**Status.** Status or place in the organization is another tenet of the hygiene factor. As stated in a study by Amzat et al. (2017), growth and advancement are significant to Millennials in the workplace. A lack of opportunity for advancement could mean losing good employees for a company (Fareed & Jan, 2016). In their study of bank officers, Fareed and Jan (2016) found that status had a substantial relationship with job satisfaction. For instance, some job applicants may seek employment based upon the probability of gaining new status. An upward change in status can equal increased job satisfaction (Fareed & Jan, 2016). The hygiene factor tenet of status may be significant to some organizations.

**Salary.** Salary or pay with benefits packages is a tenet of the hygiene factor that may significantly impact job satisfaction. For example, in a study where researchers use the two-factor theory to view the results, salary is an influential variable in overall job satisfaction (Holmberg et al., 2018). A similar study among government workers showed

a positive relationship between salary and positive work-life quality (Olasupo et al., 2019). The Federal Employee Viewpoint Survey is an annual government employee survey that includes questions about worker salaries (OPM, 2019). Government surveys may help researchers study the relationship between income and job satisfaction.

**Policy.** Company policy and administration is a tenet of the hygiene factor measured in the Herzberg two-factor theory. Fareed and Jan (2016) found a significant relationship between company policies and job satisfaction. Similarly, Amzat et al. (2017) noted a relationship concerning policy among teachers in Malaysia. Malaysian teachers received salary increases when their supervisors evaluated their work as excellent (Amzat et al., 2017). Therefore, the correlation between salary policy and the Malaysian teacher's work performance, in turn, helped the schools understand teacher's job satisfaction (Amzat et al., 2017). Company policies may influence employee job satisfaction.

### ***Motivation Factor***

Motivation is one of the two major categories of factors that make up the Herzberg two-factor theory. The motivation factor is the intrinsic factor that influences job satisfaction (Herzberg et al., 1959). Some examples of motivation factor tenets are achievement, responsibility, work itself, recognition, and personal growth (Grigaliunas & Herzberg, 1971; Herzberg et al., 1959). Motivators are often seen as the more essential tenets to study since they can increase job satisfaction (Herzberg et al., 1959). Motivation tenets had a more significant effect than hygiene tenets in a study involving public managers (Hur, 2018). Researchers in India found that doctors responded to intrinsic

factors giving insight into the motivation of highly trained health care workers (Merzljakova & Kuligina, 2018). Additionally, promoting positive motivators can help managers decrease employee intent to leave (Merzljakova & Kuligina, 2018). Human Resource (HR) associates and agency managers may use motivation studies to plan employee retention strategies. Described in the following sections are the tenets in the motivation category.

**Achievement.** The Herzberg two-factor theory includes achievement as one of the tenets of the motivation factor. Motivators are studied to show how job satisfaction increased or decreased (Herzberg et al., 1959). Herzberg et al.'s (1959) research indicated that employee achievement had a relationship with job satisfaction. Hence supporting the motivator of achievement through employee voice can contribute to organizational effectiveness (Alfayad & Arif, 2017). Achievement is significant in measuring job satisfaction (Sajid et al., 2018). Therefore, organizations may use achievement to influence job satisfaction.

**Responsibility.** Responsibility among employees is a motivation element that can affect job satisfaction. Samanez and Medina (2017) found that the higher the work responsibility was, the higher the job satisfaction grew in health workers. They found that if the level of work responsibility was moderate, job satisfaction was moderately satisfied (Samanez & Medina, 2017). Therefore, motivation may affect job satisfaction.

The study of motivation may show the effects of job responsibility. Ahmed et al. (2017) investigated motivation studying internet technology (IT) professionals in New Zealand. They found that responsibility perceptions were the second-highest motivation

element. Since there is a shortage of IT professionals in New Zealand, managers can use the results to recruit more people to this job area (Ahmed et al., 2017). Responsibility was also a motivating element in the health care profession (Krczal, 2017). Krczal (2017) recommended that employee responsibility for independent work could make a job more attractive for doctors and healthcare workers. Consequently, organizations may add motivational features to their job descriptions to attract needed professionals.

**Work Itself.** The work itself is a motivating tenet. Samanez and Medina (2017) noted that the work itself is a highly rated positive stimulus for job satisfaction. Researchers looked at organizational commitments and noted that the job's nature was an element midwives held as crucial for job commitment (Kheirkhah et al., 2018). Another study among faculty members of Tabriz School of Dentistry showed that the nature of the work itself was one of two main factors of importance in job satisfaction concerning the internal factors (Pakdel et al., 2018). Additionally, Dias et al. (2017) attempted to find what motivated specialized health care professionals with cancer patients. Dias et al. (2017) found the work itself was one of the motivators. The work itself may be a key to providing a rewarding job and keeping needed employees.

**Recognition.** Recognition is a motivation element. For instance, researchers who conducted a study among bank employees in the Southwestern United States found one of the strongest predictors of job satisfaction was recognition for their work (Ward, 2019). Recognition and respect are social capital (Ward, 2019). As an illustration, researchers working with sports and youth admissions employees found that social capital was one of the highest motivating factors for this group (Zaheri & Moosavi,

2015). Wang et al. (2018) conducted a study of work intensification with secondary principals in Ontario, which showed that employer recognition, workplace challenges, and work demand significantly influenced employee satisfaction. Thus, recognition in the workplace can add to daily work appreciation (Wang et al., 2018). Furthermore, Arfat (2017) listed employer offerings such as recognition as an element that employees reacted to when considering if they were content in their current jobs. Therefore, managers may use recognition to acknowledge employees' accomplishments for increased job satisfaction to retain employees (Arfat, 2017). Positive recognition may be beneficial to motivation.

**Personal Growth.** Personal growth, talent management, or personal development is a motivation tenet listed in the Herzberg theory. In a study concerning the continuous personal development of teachers in Ireland, researchers found that teachers needed to develop growth actively rather than passively and that personal choice of interest was most important (McMillan et al., 2016). Petersen et al. (2017) found that networking and professional development opportunities motivated students. The concern for retaining employees is leading management teams to look at satisfaction factors beyond only salary and benefits packages (Alparslan & Saner, 2020). The additional satisfaction element of personal growth may add to job satisfaction and retention of employees.

### **Predictor Variable of Employee Perception of the Work Experience**

Work experience may be a meaningful part of a person's life and curb intent to leave. For example, perception of the work itself was a positive, motivating element for

the therapists surveyed by Savoy and Wood (2015); 86.2% agreed or strongly agreed that the work itself was enjoyable and a job satisfaction source. Additionally, Bogaert et al. (2019) deduced that providing a better workplace engagement perception and making changes to increase job satisfaction kept health care workers from leaving their jobs. Bogaert et al. (2019) concluded that many workers do not change careers, just workplaces (Bogaert et al., 2019). Nevertheless, workers who enjoy their work but intend to leave are evident in jobs where high mobility is normal (Nelson et al., 2020). One example of this is with nursing home administrators who are skilled but want to move up in their profession. A study by Nelson et al. (2020) found that those with higher skill levels were more likely to have the intent to leave since there is no negative stigma to this in the career of nursing home administrators. Nelson et al. (2020) also found a relationship between overcoming stress and job satisfaction. Thus, as the work experience continues to be significant, it may be a crucial part of retaining employees.

The work itself can expand into other areas of employees' lives, keeping them content to stay at their jobs. For example, Van Loon et al. (2018) surveyed teachers who work in frontline positions. Teachers who coped with their jobs' stress by using an active professional strategy were less likely to intend to leave the institution. Professional coping involves speaking up actively about work issues and being part of the frontline communication between teachers and the public. The desire to create change from the inside and use one's profession to voice a particular stance reduced stress and increased intent to stay at the workplace. Consequently, job stress leads to more burnout among teachers who do not participate in current issues (Van Loon et al., 2018). Involvement in

issues involving the work itself may contribute to decreased intent to leave among employees.

### ***Jobs Provide Self-Esteem and Purpose***

The nursing profession's work experience involves caring for others, contributing to a sense of self-achievement. However, an issue exists in the academic world for nursing doctoral students (Robinson & Volkert, 2018). There is a need for more doctorate-level nurses at universities, but many are dropping out of nursing degree programs (Robinson & Volkert, 2018). Robinson and Volkert (2018) examined the intent to leave of nursing doctoral students across the United States. The researcher's results showed that the coursework is very demanding. However, Robinson and Volkert (2018) found that the issue is not a dislike of the work but too much work. Robinson and Volkert (2018) recommended a different approach to doctoral students' coursework, such as less work while taking classes or funding to cover time off from work and possible educational sabbaticals.

Liu et al. (2016) also found that work-related fatigue contributed to intent to leave among the new nursing staff. Liu et al. (2016) recommend monitoring new nurses for work-related fatigue, especially if they have significant workloads and work over ten hours a day. Therefore, managers may review factors such as scheduling to plan for a better work experience.

Management careers often involve organizational succession planning programs (SPP). As a result, managers' selection or non-selection of succession plans in their company can make a difference in their intent to leave the company (Carter et al., 2019).

Carter et al. (2019) investigated the issue and found a relationship between positive retention and a structured management SPP. Consequently, managers who had an SPP in place had up to a 50% lowered turnover rate (Carter et al., 2019). For this reason, if managers knew how succession progressed, they could plan their career future at their present company.

### **Predictor Variable of Employee Perception of Supervisors**

One area of employee perception that may concern organizations is how employees perceive treatment by supervisors. How supervisors treat workers is a hygiene element since it is one that outwardly changes (Herzberg et al., 1959). Ruiz and Davis (2017) conducted a study among millennials at full-service restaurants, which showed different supervisors' strategies. The supervisor's influence was one of the top three categories essential in the restaurant industry (Ruiz & Davis, 2017). Another study in this area by Savoy and Wood (2015) found that 46% of respondents had a positive perception of their supervisors. Savoy and Wood (2015) recommended that since one-third of the respondents perceived micromanagement, supervisors should delegate authority. Additionally, Savoy and Wood (2015) concluded that paying attention to satisfaction elements would lower turnover rates. Supervisors may be a crucial part of how workers perceive their jobs.

Supervisors may be able to improve both worker's job satisfaction and the company's productivity. Amzat et al. (2017) noted that supervision could improve teachers' performance and practices. Businesses depend on well-trained supervisors (Samanez & Medina, 2017). Merzljakova and Kuligina (2018) observed that paramedics

were affected by negative extrinsic elements, such as supervisors. Thus, research may provide insight to increase job satisfaction.

A job that an employee gains satisfaction from may decrease intent to leave. For example, Chu (2018) examined policewomen's perception in two locations, Dubai and Taipei; Chu (2018) noted the employees' reasons for joining the police force and their motivations for remaining in that occupation. The results were that Taipei officers were more satisfied with their supervisor, coworkers, and the job itself than their counterparts in Dubai (Chu, 2018). The police officers in Taipei also had more confidence in their work (Chu, 2018). In another illustration, Ahmed et al. (2017) looked into the employees' attitudes toward their job and workplace. The participants were motivated by the nature of the work, responsibility, and encouragement by supervisors (Ahmed et al., 2017). Ahmed et al. (2017) recommended that the company focus on the work's nature and encourage supervisors to empower the work climate. How employees perceive supervisors may be crucial links to job satisfaction.

### ***Employee Perception of Supervisors***

Employees' perceptions of how their supervisors treat them may contribute to their intent to leave a job. For example, staff suffering from burnout and intending to leave their jobs participated in a study by Lee et al. (2019). Lee et al. (2019) concluded that authentic leadership positively affected burnout and intent to leave among employees. Furthermore, Lee et al. (2019) concluded that a positive environment with authentic leadership could help maintain the current staff. In a similar study on intent to leave, Burmeister et al. (2019) focused on details supervisors' control at the workplace,

such as scheduling, to view workplace functions. Burmeister et al. (2019) noted that the intent to leave and absenteeism among younger, less experienced nursing staff was curbed by having the correct number of staff scheduled to work each shift. Since there is a shortage of nurses globally (Burmeister et al., 2019), findings on maintaining nursing staff may help hospitals worldwide.

An area that may require the support of supervisors is the nursing student population. Currently, there is a shortage of nurses with doctoral degrees and a high attrition rate among nurses in doctoral programs (Volkert et al., 2018). Managers of these student programs can look at the research for insight into the situation. In particular, Volkert et al. (2018) found a relationship between intent to leave the nursing program and a lack of support from staff and advisors. Managers may plan strategies to lessen intent to leave by examining student support and the nursing program's organization.

Knowledge of employees' perspectives may help managers develop communication lines and policies to reduce intent to leave. For instance, researchers conducting a study with nursing staff in Iran had results of lowered job satisfaction by lack of supervisor' support (Shojaeimotlagh et al., 2018; Valizadeh et al., 2018). In particular, the nurses had increased job stress and felt a lack of a supportive social environment resulting in transfer requests or intent to leave (Valizadeh et al., 2018). Keeping enough nurses in the profession is crucial as intent to leave nursing can cause acute shortages in hospitals and government health care offices (Burmeister et al., 2019; Shojaeimotlagh et al., 2018). Therefore, supervisors and managers may be influential in retaining employees.

Supervisors often model and teach professional values to those around them in an organization. Professional values increased job satisfaction, and job satisfaction decreased intent to leave (Kantek & Kaya, 2017). For this reason, Kantek and Kaya (2017) recommend promoting professional values and increasing job satisfaction to lower turnover rates. Positive management can create a positive company culture (Shannon, 2019). Supervisors and managers can affect those they manage and the organizational culture.

Supervisors, including workers in the team, may affect voluntary intent to leave. Zhang et al. (2019) explored a new approach to the intent to leave in a study among technology workers; Zhang et al. (2019) investigated the effects of workplace ostracism and job embeddedness. The hypothesis concerned workplace ostracism effects on issues of job embeddedness leading to intent to leave voluntarily (Zhang et al., 2019). The results were that workplace ostracism harmed the retention rate of employees (Zhang et al., 2019). Therefore, Zhang et al. (2019) concluded that HR departments should emphasize employee interactions with their supervisors and coworkers because interaction increases job embeddedness and decreases ostracism in the workplace (Zhang et al., 2019). The workplace value of decreased ostracism may help organizations retain employees.

A tool that public health departments have to help with supervision is the accreditation board. The accreditation requirements aid supervisors in developing a framework of accountability in their departments (Yeager et al., 2019). Yeager et al. (2019) examined the relationship between accreditation, workplace satisfaction,

retention, and training needs. A link between accreditation and quality improvement became apparent. Yeager et al. (2019) concluded that as staff becomes exposed to accreditation topics, they will appreciate supervisors assigning training in needed areas and hopefully improve job satisfaction in accredited agencies. Supervisors and staff working together toward accreditation may help raise workplace satisfaction and lower intent to leave.

### **Criterion Variable of Employee Intent to Leave**

Many businesses, including government agencies, are concerned about employee intent to leave, job satisfaction, productivity, and profits, as the following studies reveal. The high cost of training new employees has led organizations to become interested in job satisfaction to lower employee intent to leave (Li et al., 2016). HR professionals want to retain employees and decrease employee turnover by lessening employees' intent to leave (Kantek & Kaya, 2017). For example, Jarupathirun and De Gennaro (2018) investigated some of these concerns with a study of 100 office workers. The results were that lack of job satisfaction contributes to intent to leave (Jarupathirun & De Gennaro, 2018). In another study of public health practitioners, Ong et al. (2019) looked at enhanced organizational commitment to decrease employee intent to leave. The results were that a solid organizational commitment reduced intent to leave (Ong et al., 2019). Some employers focus on what job elements lead to employee intent to leave. For instance, a study focused on the age-diverse workforce at a university showed seven areas that managers could review to form retention strategies and lower employee intent to leave (Jones, 2019). Work elements may be a significant part of the equation.

Lee et al. (2020) found that the elements related to intent to leave can vary from those that affect intent to stay. Lee et al. (2020) conducted a study among nurses in Korea that illustrates this relationship. The elements affecting intent to leave in the study were organizational commitment, practice environment, and burnout (Lee et al., 2020). The element affecting intent to stay was organizational commitment (Lee et al., 2020). Thus, the study illustrates differences and similarities in elements that affect one another in a job.

Furthermore, Li et al. (2016) looked at how employees' proximal withdrawal states affect intent to leave. There may be a difference between those who intend to leave and can and those that intend to leave but cannot (Li et al., 2016). Both groups affect the overall attitude and culture within an organization (Li et al., 2016). However, Li et al. (2016) found that intent to leave may damage others' work commitment, especially if employees who want to leave cannot leave. The information may enable managers to develop policies that create an environment with committed staff.

The following studies examine support and commitment. Massingham (2018) found that employee commitment adds to employee job satisfaction. In the study, employees who want to stay in their jobs positively affect other employees (Massingham, 2018). Griffiths et al. (2017) examined retaining qualified staff in the child welfare system. Griffiths et al. (2017) found that supervisor staff support positively impacts retaining qualified workers (Griffiths et al., 2017). Positive work environments may impact employees' commitment and lower intent to leave.

Healthcare is another area of research where staff may intend to leave, as the following study illustrates. Winters (2019) looked at the high rate of turnover for emergency room nurses. The researcher's results showed a relationship between personality and tenure: the nurses with longer tenure and certain personality traits had less intent to leave their jobs (Winters, 2019). Additionally, a recent study among nurses based upon the Herzberg two-factor theory showed Egcas (2017) that economic concerns were not the only issue facing HR managers in Philippine hospitals. Egcas (2017) found that job security was also an issue. Another problematic area for organizations is an overall lack of skilled applicants in the work pool. For example, there is a shortage of nursing faculty at the doctorate level to train other nurses (Aquino et al., 2018). A study using a national survey throughout the United States uncovered a relationship between intent to leave and burnout through unsupportive workplace environments (Aquino et al., 2018). As a result, Aquino et al. (2018) suggested providing additional emotional support for Ph.D. and DNP faculty and encouraging nurses to begin their academic careers earlier. Information about intent to leave may help HR personnel develop programs, leading to lessening turnover rates for trained workers.

### ***Intent to Leave Federal Employment***

An area of concern regarding employee intent to leave is federal employment. Governmental jobs often involve specialty training, and there are more than 2 million federal employees (Congressional Research Service, 2020). Because of the government's high employee numbers, federal employment is an excellent area to view employee's perceptions (OPM, 2019). For instance, a study used to examine why employees may

want to leave federal employment in the United States gathered information through the Federal Employee Viewpoint survey. Weaver's (2015) results showed that these employees were slightly more motivated by intrinsic factors. In another study that used the Federal Employee Viewpoint Survey, the authors found that job compatibility and supervisors had a significant effect on civil servants' job satisfaction (Wang & Brower, 2019). The U.S. Federal Employee Viewpoint Survey gives an annual look into how U.S. Federal employees perceived their jobs (OPM, 2019). Since the Federal Employee Viewpoint survey reaches a sizeable participant pool, research using the Federal Employee Viewpoint Survey may give managers a view from the employee perspective on intent to leave.

The federal government also employs veterans. The Federal Employee Viewpoint Survey began tracking veterans' status in 2012 (Vanderschuere & Birdsall, 2019). Vanderschuere (2017) found that the normalization of frequent job changes and the availability of government benefits affected the high intention of turnover rate among veterans. Accordingly, veterans have a higher turnover rate in federal employment than non-veterans, yet veterans are more likely to change to another federal job (Vanderschuere, 2017). Employee viewpoints of veterans may help managers working with this group of employees.

Federal employee surveys provide valuable information for studying employee motivation. Leider et al. (2016) used the 2014 Federal Employee Viewpoint Survey and the 2014 Public Health Workforce Interests and Needs Survey in a study. The results were that job satisfaction correlates with pay, employee involvement, and organizational

support (Leider et al., 2016). Also, Leider et al. (2016) found that 40% of the employees intended to leave or retire by 2020. The study results give managers insight into employees' issues and estimate how many jobs may need new employees.

Many elements can contribute to intent to leave. Khoshnevis and Tahmasebi (2016) conducted a study inquiring into workers' motivation in a government organization and found that the Herzberg two-factor theory's hygiene factor showed a significant relationship to job satisfaction, except among middle managers where the motivation factor also played a part. Khoshnevis and Tahmasebi (2016) concluded that managers should develop a transparent reward system and identify employees' training needs and better communication lines. Liss-Levinson et al. (2015) conducted a study concerning state-employed health care workers that investigated the reasons for employee intent to leave within the following year. Liss-Levinson et al. (2015) found that job satisfaction, along with organizational satisfaction and pay satisfaction, were some of the predictors of a lowered intent to leave the organization. Lowering the intent to leave would lower recruitment costs (Li et al., 2016). A stable work environment that values job satisfaction may help managers lower intent to leave.

Hygiene tenets and motivation tenets may combine to form jobs that individuals are interested in staying at long term, thereby lowering intent to leave. For instance, U.S. Federal employees' data revealed that the hygiene tenet of leadership styles impacted employee turnover rates (Moon & Park, 2019). A motivation tenet, employee voice, is a tool available to U.S. Federal employers affecting job satisfaction (Langbein & Stazyk, 2018). Langbein and Stazyk (2018) also found a contagion effect where employees

reported an intent to leave if that was their office's general atmosphere. The opposite was true in agencies with employees wanting to stay in their jobs (Langbein & Stazyk, 2018). When most workers are satisfied with their jobs, they can influence other employees to be content (Langbein & Stazyk, 2018). Job satisfaction involving hygiene and motivation tenets may be able to influence intent to leave.

### **Current Research Using the Two-Factor Theory**

Academia and business use Herzberg's two-factor theory to discuss job satisfaction. Universities and commercial enterprises incorporate it into their business curricula and HR departments (Ann & Blum, 2020). In the following sections, I report the Herzberg two-factor theory's usefulness in businesses across the United States and abroad and describe similar and alternate theories.

#### ***Business-Related Findings***

Business researchers use the two-factor theory to explore human motivations ranging from studies on quality of work-life factors (Dhamija et al., 2019) to studies about job satisfaction in the nursing field (Holmberg et al., 2018) to the motivation of public managers (Hur, 2018). For example, Jarupathirun and De Gennaro (2018) noted that a lack of job satisfaction contributed to workers leaving their employment. Kao et al. (2018) surveyed 2263 physicians across specialties focusing on the Herzberg tenet of salary. From the survey data, Kao et al. (2018) concluded that it was not merely the amount of pay but the perception of fair pay that added to job satisfaction and the intent to stay at the organization. In another example using the Herzberg theory, researchers conducted a study of factory workers. They uncovered two employee complaints: one

was that foreign workers might take their jobs, and the other was their low pay rate (Manaf et al., 2019). Research using the two-factor theory may assist managers in increasing job satisfaction.

A workplace culture that is positive and concerned with the employee may result in employee job satisfaction and lower intent to leave. For example, social workers who had a good working relationship with their supervisors had a decrease in intent to leave (Chung & Choo, 2019). Chung and Choo (2019) noted that positive attitudes within the organization increased personal accomplishment perceptions (Chung & Choo, 2019). However, a diminished sense of personal accomplishment was also an element contributing to employee intent to leave (Chung & Choo, 2019). Therefore, the researchers recommend that the CPS social workers have workshops to keep up their morale and sense of personal well-being to maintain healthy levels of prosocial behaviors (Chung & Choo, 2019). The findings described may help managers understand their employees' work motivations and what relationships fuel their job satisfaction.

**International Business Findings.** Researchers apply the Herzberg two-factor theory globally in business settings. For example, Alshmemri et al. (2017), in an Australian study, found that among nurses, motivation tenets added to job satisfaction more than hygiene tenets. In another study with teachers in North Cyprus, researchers noted that intrinsic motivation elements and extrinsic hygiene elements relate to job satisfaction (Emiroglu et al., 2017). Similarly, a study concerning some academics in India resulted in both the hygiene and motivation elements significantly influencing job satisfaction (Khanna, 2017). An empirical study in Turkey with utility workers had some

supporting outcomes for the Herzberg two-factor motivation theory (Ozsoy, 2019).

Salary had the highest score with relationships and the work itself following in relevance to job satisfaction (Ozsoy, 2019). Investigators in Romania studied civil servant motivation in 21 town halls with valuable results. Bercu and Onofrei (2017) found that employees who considered themselves essential to their organization were better performers at work and actively pursued goals. All in all, this type of research may help test the two-factor theory in other cultures, occupational situations, and diverse settings.

The two-factor theory is globally recognized. Researchers use the two-factor theory internationally (Khoshnevis & Tahmasebi, 2016; Singh & Bhattacharjee, 2019). For instance, Habib et al. (2017) in Pakistan looked at the relationship between performance management systems (PMS) elements and employee-related outcomes among bankers. Habib et al. (2017) found that a PMS positively impacted employee job satisfaction. An empirical study among health workers in Jordan revealed that motivation elements positively impacted job satisfaction (Dobre et al., 2017). In an additional study with government workers in Tehran, the middle managers surveyed showed motivation elements raising job satisfaction (Khoshnevis & Tahmasebi, 2016). Singh and Bhattacharjee (2019) conducted a study in India among academics and report that working conditions, status, responsibility, growth, and salary were motivators. Singh and Bhattacharjee (2019) recommend attention to intrinsic and extrinsic motivators for increased job satisfaction. Given job satisfaction elements across many industries, research with the two-factor theory may be of interest to organizational leaders.

## **Supporting Theories**

Other theories on job satisfaction and motivation include the Maslow hierarchy of needs theory and McClelland motivation theory. Maslow's theory has a multitude of needs (Maslow, 1943), unlike the two-factor theory. The McClelland motivation theory, often called the trichotomy of needs, has three measurement areas that focus on intrinsic needs (McClelland, 1961). In the following sections, I discuss Maslow's and McClelland's theories.

### ***Maslow's Hierarchy of Needs Theory***

Maslow's theory of motivation is similar to the Herzberg two-factor theory. Instead of two main factors concerning motivation, Maslow's hierarchy of needs theory has a five-tier human needs model (Maslow, 1943). The theory is usually illustrated in pyramid form, with basic needs, food, water, air, and warmth, as the bottom tier followed by security, social needs, then emotional needs, and finally, self-actualizing needs (Maslow, 1943). The needs bundles are in the order that Maslow believed to be a human necessity (Maslow, 1943). Business managers can use the Maslow theory for research.

Researchers conducting business studies use Maslow's hierarchy of needs theory to study employee motivation. For example, the study by Madan (2017) links Maslow's theory to an engagement theory to investigate employee engagement issues. University professors teach Maslow's theory in business management classes (Bridgman et al., 2019). The pyramid representing his theory on the hierarchy of needs may be the most famous image of motivation in management textbooks (Bridgman et al., 2019).

### ***McClelland Human Motivation Theory***

McClelland's human motivation theory is similar to the Herzberg two-factor theory. The McClelland theory (1961) relies on employees' needs and social interactions for satisfaction ratings. However, the McClelland theory differs from Herzberg's two-factor theory as it uses a three-factor approach, often referred to as McClelland's trichotomy of needs (McClelland, 1961). The three areas are: the measurements of need for affiliation, need for power, and need for achievement (McClelland, 1961). The McClelland theory considers three needs from the employee's decision-making process (Harrell & Stahl, 1981). In a study by Liu and Arendt (2016), the theory is used in research to find a measurement scale to assess work motives. Motivation research uses both the McClelland and Herzberg theories.

### **Alternative Theories**

Two alternate theories to the Herzberg two-factor theory are Vroom's expectancy theory and Porter and Lawler expectancy theory. The conflicting theories by Porter and Lawler (1968) and Vroom (1964) look at cause and effect to motivate workers. The alternate theories focus on expecting specific outcomes from supplying certain rewards, such as pay (Porter & Lawler, 1968; Vroom, 1964). In the following section, I discuss the theories further.

### ***Vroom's Expectancy Theory***

Vroom's expectancy theory differs from the two-factor theory. Vroom's theory focuses on choices among employees' alternatives to direct behavior (Vroom, 1964). The components of Vroom's theory are expectancy, instrumentality, and valence (Vroom,

1964). Vroom's theory was published in 1964 and titled *Work and Motivation*. The theory values choices to minimize pain and maximize gain with rewards, and that choice is what the organization expects of an individual (Vroom, 1964). In another study involving employees from different companies, researchers used the expectancy theory to identify factors that enhanced motivation (Beiu & Davidescu, 2018). In the workplace, managers using Vroom's theory could set up evaluations and rewards to direct their employees' behavioral choices.

### ***Porter and Lawler Expectancy Theory***

The Porter and Lawler expectancy theory is based upon Vroom's theory but expands upon it. Porter and Lawler expanded upon Vroom's theory by adding intrinsic and extrinsic motivation factors and the concern for the individual worker's ability to perform a task (Porter & Lawler, 1968). Although both the Herzberg and Porter and Lawler theories include factors that affect job satisfaction, Porter and Lawler (1968) theorized that there is no satisfaction without the extra variable. One research example of the expectancy theory's use is in a study of middle management's role in strategy implementation. Researchers noted that incentive systems were vital to middle management's motivation in strategy implementation projects (Kiehne et al., 2017). Herzberg's two-factor theory and Porter and Lawler expectancy theory are both approaches to studying motivation and job satisfaction.

### **Job Satisfaction and Intent to Leave**

Research concerning job satisfaction and intent to leave may help HR departments make their organizations a place where valuable employees want to stay.

Intent to leave can be linked to job dissatisfaction, especially when combined with a perceived employability element (Acikgoz et al., 2016). Acikgoz et al. (2016) found that workers who were dissatisfied with their jobs and had more excellent employability opportunities were those who intended to leave. Lowering job dissatisfaction may promote a lowered intent to leave.

Job satisfaction may significantly influence intent to leave. For instance, employees who were not satisfied with their work reported significantly higher demands and lowered autonomy (Han et al., 2015). Those surveyed in this study were also not satisfied if they worked long hours and were not allowed a fair number of sick days or breaks (Han et al., 2015). Participants who were dissatisfied with their work conditions had a higher intent to leave (Han et al., 2015). Thus Han et al. (2015) concluded that managers could change many of the situations related to job dissatisfaction and intent to leave. Han et al. (2015) recommended that the impact of changes made to modify these adverse conditions be evaluated in the future to see if participants were more satisfied with their work and if their intent to leave had lowered. Working conditions may affect job satisfaction, and some of these conditions are modifiable issues.

Workers with job satisfaction may be more likely to stay at their jobs. Escardibul and Afcha (2017) studied the determinants of job satisfaction of Ph.D. holders. They recommended that universities pay attention to intrinsic needs as they were more critical to the Ph.D. holders than the extrinsic motivator of salary (Escardibul & Afcha, 2017). Auxier and Woodruff (2018) looked at two groups of teachers; the results in both the standard education unit and the traditional clinical teacher's group showed an overall high

job satisfaction rating. Areas of high job satisfaction may give managers a view of strategies that work.

Studies reveal high job satisfaction in some organizations. Grujicic et al. (2016) conducted a study concerning workers in urban and rural areas of Central Serbia to see if there was a difference in work motivation and job satisfaction in the two different regions. The urban areas' workers were more satisfied with their jobs than those in rural areas (Grujicic et al., 2016). Hence Grujicic et al. (2016) recommended increasing support from supervisors, awards, interpersonal relationships, and advancement opportunities to improve rural areas' job satisfaction. Organizations with areas of high job satisfaction may provide insight for improvement.

Volunteer organizations are also concerned with job satisfaction and volunteer perceptions. Volunteers are a valuable resource assisting organizational operations (Jamison, 2003). Around six million volunteers are involved in delivering services for nonprofits (Jamison, 2003). Consequently, volunteers' turnover and retention rates in human service agencies are positively affected by two factors: training and challenging tasks (Jamison, 2003). Motivation elements such as challenging work may keep volunteers interested.

Employee perception can contribute to employee intent to leave. Employee perception is one of the main issues impacting employee intent to leave among child welfare workers in the state of New York (Fernandes, 2016). How the child welfare workers perceived their organizational climate added to their intent to leave (Fernandes, 2016). Fernandes (2016) noted areas needing improvement as justice, support, work

overload, and job importance. In another study, fulfilled psychological needs resulted in less burnout and less intent to leave for teachers (Ford et al., 2019). In this case, when workers perceived that managers cared about them and their needs, it produced positive results (Ford et al., 2019). Organizations can work to create positive employee perceptions to retain good staff.

Job satisfaction is a global topic. Organizations are concerned with creating the right work environment to motivate and retain their employees (Kantek & Kaya, 2017). For example, in a study conducted in Romania with town hall employees, Bercu and Onofrei (2017) noted a relationship between motivation and recognition. The recognition that they are a valuable part of the organization made them better at their jobs (Bercu & Onofrei, 2017). In the Czech Republic, researchers aimed to find which elements contributed to intent to leave. Data mining results from exit interviews showed that the work, specifically patient care, was the area that affected nurses' intent to leave (Vevoda et al., 2016). Job satisfaction can be involved in the retention of employees.

Job satisfaction may lower intent to leave. A positive relationship with supervisors helped retain extension workers in Florida (Benge, 2018). A study with registered nurses in Canada had beneficial results. Nowrouzi-Kia and Fox (2019) found that nurses who had higher job satisfaction, flexible inter-professional collaborative relationships, and resource availability were less likely to have the intent to leave their employment. In summary, elements that increase employee retention may lower intent to leave and lessen the human capital loss.

### **Measurement of Variables**

I looked at the relationship between the predictor variables of employee perception of work experience and supervisors to see if there was a significant relationship to predict the criterion variable of employee intent to leave. To gather data, I used the Federal Viewpoint Survey 2020 data, which has data available in numerical form. The quantitative research method analyzes numerical data and examines the relationship between independent and dependent variables (Saunders & Bezzina, 2015). Therefore, I used the quantitative method for my study.

I used a correlational design and binomial logistic regression to analyze data from the Federal Viewpoint Survey 2020. Researchers use the correlational design to measure variables (Seeram, 2019). Additionally, when there is a *yes* or *no* question present in the variables, researchers often use logistic regression (Farkas & Porumb, 2020). My study had a nominal *yes/no* question meeting the requirements for logistic regression. Logistic regression analyses the nominal criterion Y variable to see how the predictor variables affect obtaining or not obtaining a particular effect (McDonald, 2014). My study had a criterion variable of employee intent to leave measured in the Federal Viewpoint Survey with a *yes/no* nominal framework; thus, I chose logistic regression to analyze the data.

### **Transition**

Section 1 contains the problem statement, purpose statement, research question, method, and design of the study and the hypotheses. Section 1 also includes an in-depth review of professional and academic literature with current research on employee intent to leave, Herzberg et al. two-factor motivation theory, federal employment, job

satisfaction, and related topics. The literature review includes a description of how I measured the variables in my research question. Section 2 contains more information on the research method and design, including participants, study validity, role of the researcher, and study ethics. In Section 2, I discuss the population and sampling, data collection with the instrument used to collect data, and data analysis. In Section 3, I present the study's findings and discuss the application of the study results in professional practices. I review the recommendations for action and further research, implications for social change, and my research reflections.

## Section 2: The Project

The purpose of my quantitative study was to examine federal government agency employees' perceptions of the work itself and their perception of supervisors to explore the relation to employee intent to leave. Managers can use this model to make changes to lower intent to leave and increase job satisfaction. This section includes the purpose statement, the role of the researcher, and information on participants. It also contains a description of the research method and design, population, and sampling information. In Section 2, I explain the data collection instruments, data techniques, ethical research, and data analysis with study validity.

### **Purpose Statement**

The purpose of this quantitative correlational study was to examine the relationship between federal government agency employees' perception of their work experience, employee perception of supervisors, and employee intent to leave. The study's predictor variables will be government agency employees' perception of their work experience and employee perception of supervisors. The criterion variable was employee intent to leave. The targeted population was federal employees of the United States who participated in the Federal Employee Viewpoint Survey 2020. The implications for positive social change include creating awareness of predictors from employee perceptions that affected employee intent to leave. This knowledge may be used by managers to craft strategies to support positive employee perceptions, increase employee retention, stabilize an organization's workforce, and add to long-term wealth for surrounding communities.

### **Role of the Researcher**

As the researcher, I used the SPSS statistical program to analyze the data. I used data tables to illustrate the descriptive statistics involved in answering the research question to give managers information about employees' viewpoints concerning job satisfaction. Job satisfaction decreases intent to leave, and intent to leave increases employee turnover, which costs employers more than retaining current employees (Hur, 2018; Jarupathirun & De Gennaro, 2018; Massingham, 2018).

### **Participants**

The participants in my quantitative study consisted of federal employees who took the Federal Employee Viewpoint Survey in 2020. The Office of Personnel Management (OPM) sent an email notifying the employee of their selection for the sample and several reminder emails (OPM, 2020). Participants should be free to take a survey (Lewis et al., 2019); the study remained unbiased with willing participants' answers. These federal employees had the choice to take the survey and participated electronically.

The eligibility guidelines to take the Federal Employee Viewpoint Survey are that the individual currently works as either a full-time, part-time, non-seasonal, or permanent employee of the federal government (OPM, 2020). Because I used secondary data from the Federal Employee Viewpoint Survey 2020, I did not need to be concerned with access to the actual participants. The number of participants in the Federal Employee Viewpoint Survey makes the data excellent for quantitative research. To

receive access to the Federal Employee Viewpoint Survey database, I requested a public release of the 2020 data by completing the required forms on the OPM website.

### **Research Method and Design**

I chose a quantitative correlational design to examine the relationship between intent to leave and federal government agency employees' perceptions of their work and supervisors. I used statistical techniques to evaluate the data from the 2020 Federal Employee Viewpoint Survey report. I focused on addressing the business issue of employee intent to leave as the dependent or criterion variable to examine the likelihood of the predictor variables affecting the intent to leave.

### **Research Method**

The research method I used is quantitative. Researchers use the quantitative method to examine the relationships between a criterion variable and predictor variables (Saunders et al., 2016). In the study, the business issue of intent to leave was the criterion variable and how it related to two predictor variables: The predictor variables were two employee perceptions. One was employee perception of supervisors, and the other was employee perception of their work experience. Quantitative studies process data into statistical outcomes to create visual data tables to examine the variables (Saunders & Bezzina, 2015). The Federal Employee Viewpoint Survey has numerical data derived from surveys completed by U.S federal agency employees. A quantitative study is well suited to translate numerical data into a view of how variables relate to one another (Saunders & Bezzina, 2015). This view of employee perceptions may help with recommendations for managers to lower intent to leave.

There are three main research methods: quantitative, qualitative, and mixed-methods (Saunders et al., 2016). The qualitative method works with non-numerical data such as interviews and case studies (Saunders et al., 2016). Therefore, the qualitative method was not the best method for my research as it involved numerical data from a survey. The mixed-methods is used for a combination of qualitative and quantitative research (Saunders et al., 2016) and was not suited for my study as there was not a qualitative component. The quantitative method works best with numerical data (Saunders & Bezzina, 2015). Therefore, I used the quantitative method for my research.

### **Research Design**

The research design for my study is correlational. The correlational research design is used to examine the relationship between variables (Seeram, 2019). The design was best suited to my research as it showed any connection between intent to leave, employee perception of supervisors, and employee perception of their work experience.

The experimental and quasi-experimental designs use variable manipulation to examine cause and effect (Saunders et al., 2016). Thus, an experimental design or quasi-experimental design was not appropriate for my study. I looked for predictor relationships between variables. The correlational design can establish an association between the study variables in a group (Curtis et al., 2016). Therefore, the correlational research design was best suited for my quantitative study.

### **Population and Sampling**

Quantitative studies often use surveys. Quantitative surveys can be used by HR managers to evaluate employees in the organization (Cánovas et al., 2020). The study

population was federal employees of the United States who participated in the annual Federal Employee Viewpoint Survey in 2020. The survey is given annually to full-time, part-time, permanent nontemporary federal government employees (OPM, 2020). The Federal Employee Viewpoint Survey 2020 was administered by OPM electronically and was optional for participants.

Additionally, the participants can complete the survey during work hours (OPM, 2020). The sample for my study consisted of data from the Federal Employee Viewpoint Survey of 2020. The data are from the U.S. federal employees who chose to participate in the Federal Employee Viewpoint Survey in 2020. In 2020 the OPM announced that the survey had 624,800 employees who participated in the survey, representing 82 federal agencies (OPM, 2020).

I used random sampling in the study. Random sampling gives all the target population members an equal chance to participate in the survey to compile the study's data (Batool et al., 2019). It was a probabilistic sampling that gave a proportional representation from the survey data.

I used binomial logistic regression as the criterion variable of intent to leave was a dichotomous variable. A dichotomous variable gives a *yes* or *no* answer; therefore, logistic regression can be used to evaluate the predictor variables of a dichotomous outcome, for example, outcomes that either occur or do not occur (Saunders et al., 2016). According to calculations with G\*power 3.1, my study using logistic regression needed a minimum of 337 participants or  $N=337$ . G\*power is a free online tool used to calculate statistical power analyses (Faul et al., 2007). I used all of the FEVS 2020 completed

surveys that did not have missing data. Therefore, I had enough responses from the Federal Employee Viewpoint Survey 2020 selected through random sampling in my study.

### **Ethical Research**

Ethical research is an issue of concern in every study. Ethical research ensures that sensitive data is protected and that the study is optional for participants, along with participants understanding their part in the study (Abramson et al., 2018). Participants need to be comfortable that their surveys are anonymous. The participants should not be concerned that their answers will negatively affect their work-life or relationship with their supervisors. It is also crucial that researchers understand the data collection process for quantitative research and the tools of correspondence used in data collection, such as surveys (Zyphur & Pierides, 2017).

I used secondary data collected from the 2020 Federal Employee Viewpoint Survey, so I did not directly contact the participants. I observed ethical standards when analyzing the data. I will store the data for 5 years in a password-protected file to protect the participants' rights. The University's Institutional Review Board (IRB) reviewed my study to approve ethical compliance and rubric requirements. The IRB approval number for my study is 08-05-21-0721977.

I reviewed the *Belmont Report* for guidance in my role as a researcher. The *Belmont Report* outlines three principles: respect for people, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). Following the *Belmont Report's* ethical guidelines, all the

federal employees received an electronic invitation to participate anonymously in the Federal Employee Viewpoint Survey 2020. Federal employees' participation is optional (OPM, 2020).

I adhered to the guidelines and practices for ethical research involving human participants. The participants were respected and could choose to fill out the survey after full disclosure of rights (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978). Because my data are from a U.S. government source, and I did not have any relationship to the participants, topic, or research area, I ethically aligned the study with the *Belmont Report's* recommendations.

### **Data Collection Instruments**

I used the 2020 Federal Employee Viewpoint Survey to collect secondary data for my research. An independent U.S. federal agency, OPM (Office of Personnel Management), administers the Federal Employee Viewpoint Survey. The OPM is the U.S. federal government's human resource office and personal policy manager. The OPM oversees the regulatory function and ensures employees' fair treatment (Ruijter & Huff, 2016). The OPM is the U.S. federal government's human resource office.

### **Concept Measured by Federal Employee Viewpoint Survey**

The Federal Employee Viewpoint Survey is used to aid government agencies to measure employees' perceptions of characteristics in their work areas. The survey is a tool for managers to view how their employees perceive their leadership, work experience, and agencies. The survey is used by managers to gauge how management can improve or if newly implemented strategies are working (OPM, 2020).

### **Data that Comprise each Variable with Scales of Measurement**

I used two predictor variables and one criterion variable in the study to examine how the predictor variables relate to the criterion variable of intent to leave. The two predictor variables that I looked at concern employee perceptions of their work and their supervisors. Intent to leave is an issue that managers can address in their organizations. The results of the study may aid managers in their strategies to lower intent to leave.

#### ***Employee Perception of the Work Itself***

The first predictor variable of my study, employee perceptions of the work itself, was measured with a five-point Likert-type scale ranging from 1 to 5. The variable was measured using an interval scale. One being *strongly disagreed*, with five representing *strongly agree*. The score was calculated by totaling the answers to each question on the topic of the work itself. The Federal Employee Viewpoint Survey Questions 1–8 concern employee opinion of their work experience to use for the variable of the work experience.

#### ***Employee Perception of Their Supervisors***

The second predictor variable in my study was employees' perceptions of their supervisors. Measurement was on a point system that gives a total score for each question in the survey to add up to a total score for this variable. I used a five-point Likert-type scale ranging from 1 to 5, with an interval scale of measurement. I used the Federal Employee Viewpoint Survey questions 19–25 concerning employee perceptions of their supervisor for this variable.

### ***Employee Intent to Leave***

The criterion variable in the study was employees' intent to leave. In the study, I examined whether employees' perceptions of their work experience and their supervisors influence overall employee intent to leave their jobs. Since intent to leave has a dichotomous construct in the survey, a nominal scale is used to measure the criterion variable (OPM, 2020). The nominal scale is used to record the variable by a *yes* or *no* response to the question (Devitt, 2015). In the Federal Employee Viewpoint Survey, no to intent to leave scores with a 0, and *yes*, to intent to leave scores with a 1 (OPM, 2020). The question for the variable of intent to leave the organization is question DLEAVINGB in the 2020 Federal Employee Viewpoint Survey.

### **Appropriateness of the Federal Employee Viewpoint Survey for Quantitative Research**

The Federal Employee Viewpoint Survey is appropriate for my quantitative correlational study. I used logistic regression to analyze the data to determine how intent to leave relates to employees' perception of work and supervisors. There are four scales of measurement: interval, nominal, ordinal, and ratio (Devitt, 2015). In my study, the two predictor variables use an interval scale. Numeric variables are assigned to score participants' answers in a Likert scale (Mircioiu & Atkinson, 2017). Numeric variables were assigned, and each of the survey questions for the independent variables used a Likert type 1 to 5 numeric scale.

A nominal scale measures the criterion variable of my study. The nominal scale of measurement uses a unique identifier for a positive or negative response (Farkas &

Porumb, 2020). The intent to leave is answered with a yes or no and scored with a corresponding number of 0 or 1 to input the statistical program's data scores. The scores give a view of the relationship between the variables. The assignment of a unique number to the question of intent to leave will assist in the statistical comparison of the predictor variables related to intent to leave. Therefore, the assignment of scales of measurement to each survey question is appropriate for studying these factors' relationships.

### ***Federal Employee Viewpoint Survey Administration Framework***

OPM has administered the Federal Employee Viewpoint Survey annually since its origin in 2002. The test took its current form and name in 2010 and has been administered annually (OPM, 2019). Employees take the survey once a year electronically. The employees are notified by email of their selection in the sample. OPM sends out multiple reminders by email, and participants are allowed to fill out the survey during work hours (OPM, 2020). The 2020 Federal Employee Viewpoint Survey was delayed because of the COVID-19 global pandemic. The survey usually launches in the spring, but in 2020 it ran from September 14, 2020, to November 5, 2020 (OPM, 2020).

### ***Score Calculation and Population***

Data cleaning is a part of the data collection process of the survey. The Federal Employee Viewpoint Survey has built-in programs to inspect the data collected in the online format for response errors and out-of-range values (OPM, 2020). The Federal Employee Viewpoint Survey data are weighted to represent the survey population (OPM, 2020). The agencies are of different sizes, and weighted sampling gives a more precise result of the overall federal employee population (OPM, 2020). The final sampling frame

for the 2020 Federal Employee Viewpoint Survey is 1,410,610 federal employees. The survey received 624,800 complete responses, giving a 44.3 percent response rate government-wide for the 2020 survey (OPM news release, 2020). The final responses ruled out nonresponses, incomplete surveys, refusals, unavailable, and out-of-office emails (OPM, 2020). The weighted sample is adjusted for nonresponse to remove bias from the survey and accurately represent the population (Byrne et al., 2017).

### **Federal Employee Viewpoint Survey Reliability and Validity Strategies**

A study's reliability involves duplicating the study, revealing similar results (Saunders et al., 2016). Secondary data collected from a trusted source assures reliability, such as from well-known organizations or governmental organizations (Saunders et al., 2016). The OPM has a long-standing record of consistently administering the survey and reporting results (Wang & Brower, 2019). Business studies use the Federal Employee Viewpoint Survey (Byrne et al., 2017; Weaver, 2015). Furthermore, the Federal Employee Viewpoint Survey data includes questions on employee aspects and has a population from 82 federal agencies producing the data (OPM, 2020).

Study validity is essential. It establishes the data collection methods' reliability to give findings related to the research questions (Saunders et al., 2016). The Federal Employee Viewpoint Survey focuses on measuring employee perceptions rather than theoretical constructs other than job satisfaction (Somers, 2017). To measure employee perceptions, one must align groups of survey questions to each variable in the study (Saunders et al., 2016); employee perception of the work experience aligns with the

section of questions on employee perception of their work experience. Employee perception of supervisors aligns with the Federal Employee Viewpoint Survey section containing questions on employee's supervisors and how employees perceive their interaction. OPM produces a technical report along with their survey results annually. The OPM technical report confirms the validity of their data (OPM, 2020). The data undergoes two levels of quality control: the electronic process through Statistical Analysis System (SAS), where programmers create, compare, and confirm the data (OPM, 2020). Second, the data are aligned with SAS results in the report by staff members who review the input or SAS data to the output or the actual report with the data incorporated into it (OPM, 2020).

#### **Data Collection Technique**

I chose to use the 2020 Federal Employee Viewpoint Survey with numerical data available for a quantitative study. Secondary data have already been collected for another initial purpose but are available for further analysis to provide additional knowledge, conclusions, and interpretations (Saunders et al., 2016). Some advantages of using secondary data are lowered costs and adequate population sample sizes (Renbarger et al., 2019). Some disadvantages to secondary data use are that the data are collected before the study leaving a length of time between; another issue can be that the data may not align with the study questions (Masefield et al., 2020; Saunders et al., 2016).

I addressed the disadvantages by using the recent Federal Employee Viewpoint Survey in my study. I also aligned my research questions to specific items in the annual Federal Employee Viewpoint Survey. I collected the data for my survey from the OPM

government website. To access the 2020 Federal Employee Viewpoint Survey government database, I submitted a request for the 2020 Federal Employee Viewpoint Survey public release data files (pdf). I completed the required fields to access the specific data from the OPM public website for the 2020 Federal Employee Viewpoint Survey. Secondary data provides a unique opportunity to access large amounts of data to gain new research insights into critical issues (Masefield et al., 2020).

### **Data Analysis**

My study's research question was: What is the relationship between employee perception of work experience, employee perception of supervisors, and employee intent to leave? The following is the null and alternative hypotheses for the study;

( $H_0$ ) There is no significant relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave.

( $H_1$ ) There is a significant relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave.

I used binomial logistic regression to analyze the data I download from the OPM website. Binomial logistic regression analysis can be used to show how predictor variables positively or negatively influence the criterion variable (Raj et al., 2019). Logistic regression has a nominal criterion Y variable used to study how the predictor variable affects obtaining or not obtaining a particular effect (McDonald, 2014). I considered using other types of analyses, such as two-way ANOVA. The two-way

ANOVA test uses two nominal variables and one measurement variable (Saunders et al., 2016); therefore, it was inappropriate. My study had two predictor interval variables and one nominal criterion variable.

In my study, the criterion variable was intent to leave. The survey offered a *yes* or *no* choice of answers, so the effect I looked at from the predictor variables of employee perception of their work experience and employee perception of their supervisors was whether they affected the employee's intent to leave in a *yes* or *no* manner. Moreover, the administrating government office of personnel factors missing data or incomplete surveys into the Federal Employee Viewpoint Survey (OPM, 2020). Therefore, the data are clean and accounted for when collected (OPM, 2020). The statistical program I used was the Statistical Package for Social Science (SPSS) version 27 to conduct the binomial logistic regression analysis.

### **Study Validity**

In this section, I address the issue of study validity and reliability. Threats to study validity can include measurement or construct, internal and external validity (Saunders et al., 2016; Yurtseven, 2020). The study was non-experimental in design; therefore, internal validity threats were not an issue. Yet, threats to external validity may apply to generalizability as the study was limited to federal employees of the U.S. and may not apply in other countries. The Federal Employee Viewpoint Survey had a large sample size, this fact can be used to rule out type I and type II errors and aids with validity. Type I errors are defined as the error of rejecting the null hypothesis (Saunders et al., 2016). A type II error is the opposite where the null hypothesis is accepted when it should not be

(Saunders et al., 2016); an illustration of this is when someone guilty of a crime is acquitted. The more concerning error is type I, where someone would be convicted of a crime when innocent (Saunders et al., 2016). Measurement or construct validity concerns whether the scales measure the research question (Garver & Mentzer, 1999). To address construct validity, I matched each variable in the study with the Federal Employee Viewpoint Survey's corresponding statistical test questions. I further addressed validity issues by following scientific procedures, I used a reliable instrument for my data, and utilized the proper statistical test through the SPSS software program.

### **Reliability of the Instrument**

In my study, instrument reliability was not applicable as I did not use an instrument to collect the data. I used secondary data from the Federal Employee Viewpoint Survey 2020. The survey is a well-known governmental employee viewpoint survey. A reliable instrument consists of the consistency of scores (Chan & Lay, 2018). Federal employees participate in an annual employee viewpoint survey that looks into how employees perceive different aspects of their jobs (OPM, 2020).

### **Data Assumptions**

Statistical testing must meet data assumptions before testing to negate false positives and false negatives (Saunders et al., 2016). Assumptions checks occur before the data are used (Patino & Ferreira, 2018). Binomial logistic regression is a nonparametric test eliminating the need for assumption testing (Kero & Lee, 2016).

**Sample Size**

The 2020 Federal Employee Viewpoint Survey had access to the population of U.S. Federal employees from 82 agencies (OPM, 2020), which provided an adequate amount of data and sample size. A study needs a sample size sufficient to gather data (Saunders et al., 2016). The sample size of the 2020 Federal Employee Viewpoint Survey was 1,410,610 employees; therefore, the sample size was large enough to ensure a 95% chance that the true population had a value between plus or minus 1 percent of an estimated percentage of the total federal workforce amongst the agencies surveyed (OPM, 2020). Using a regular survey from secondary data gave me access to a sample for my study. The fact that the data were from a regular, continuous survey also left comparison data for further study in the future (OPM, 2020).

**Transition and Summary**

In Section 2, I reviewed my study's purpose and my chosen research method and design. I discussed the role of researcher, participants, ethical research, data collection instrument and technique, data analysis, validity, and reliability of the study. In Section 3, after completing the study, I presented my findings, the application to professional practice, the implication for social change, and some recommendations for further research.

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

#### **Introduction**

The purpose of this quantitative correlational study was to examine the relationship between federal government agency employees' perception of their work experience, employee perception of supervisors, and employee intent to leave. The study's predictor variables were government agency employees' perception of their work experience and employee perception of supervisors. The criterion variable was employee intent to leave.

Employee intent to leave is a concern as it can lead to lowered productivity and a loss of experienced staff. The cost of replacing current staff is high and estimated at between 90% and 200% of the employee's annual salary (Lee et al., 2018).

The FEVS is an extensive annual survey. I was able to use 359,120 complete surveys to analyze my research question with binomial logistic regression. Resulting in a rejected null hypothesis and an accepted alternative hypothesis. The key finding was that employee perception of work experience significantly predicted employee intent to leave; for every one-unit increase in employee perception of their work experience, employee intent to leave decreased by 15%.

#### **Presentation of the Findings**

In this section, I discuss the testing of assumptions and descriptive statistics. In conclusion, I provide the final inferential statistics results and a theoretical conversation on the findings. I used secondary data from the Federal

Employee Viewpoint Survey 2020 and ran 359,120 completed samples. I used binomial logistic regression in SPSS version 27 to analyze the data.

### **Evaluation of Statistical Assumptions**

Binomial logistic regression is a nonparametric test, and there is little need for assumption testing. The testing is in whether logistic regression is the correct statistical test to use on the data. Thus a few assumptions I looked at before running the data were (a) do I have a dichotomous variable, (b) is there more than one independent variable, and (c) are the variables both mutually exclusive and exhaustive. I considered the Box-Tidwell test for linearity, but none of the variables in my study were continuous; therefore, I did not need to test for the assumption of linearity.

My final concern was that I had enough samples for binomial logistic regression. My previous G\*power 3.1 calculated that I needed at least 337 samples. The case processing summary showed that 359,120 cases were run in the binomial logistic regression analysis when I prepared the data. The 359,120 cases used was above the minimum required and a large number which is best for logistic regression. Logistic regression run on a higher number of cases is more accurate (Saunders et al., 2016).

### **Descriptive Statistics**

In total, I received data for 624,800 surveys; 265,680 of the surveys with missing data were eliminated, resulting in 359,120 completed surveys for the analysis. Table 2 and Table 3 contain descriptive statistics of the study variables. The independent variable of employee perception of work experience score was the sum of survey questions Q1 through Q8, which is the

work experience section of the FEVS. The employee perception of supervisors was the sum of the survey questions Q19 through Q25, the supervisor section of the FEVS. The dichotomous dependent variable is survey question coded DLEAVINGB, representing the yes or no response to intent to leave the organization. Appendix A contains the survey questions.

**Table 2**

*Quantitative Study Variables and their Measurements*

Variable	Data Type	Score range or code
Employee perception of work experience	scale	Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8
Employee perception of supervisors	scale	Q19, Q20, Q21, Q22, Q23, Q24, Q25
Employee intent to leave	dichotomous	No = 0 Yes = 1

Note: *FEVS 2020 = Federal Employee Viewpoint Survey 2020*

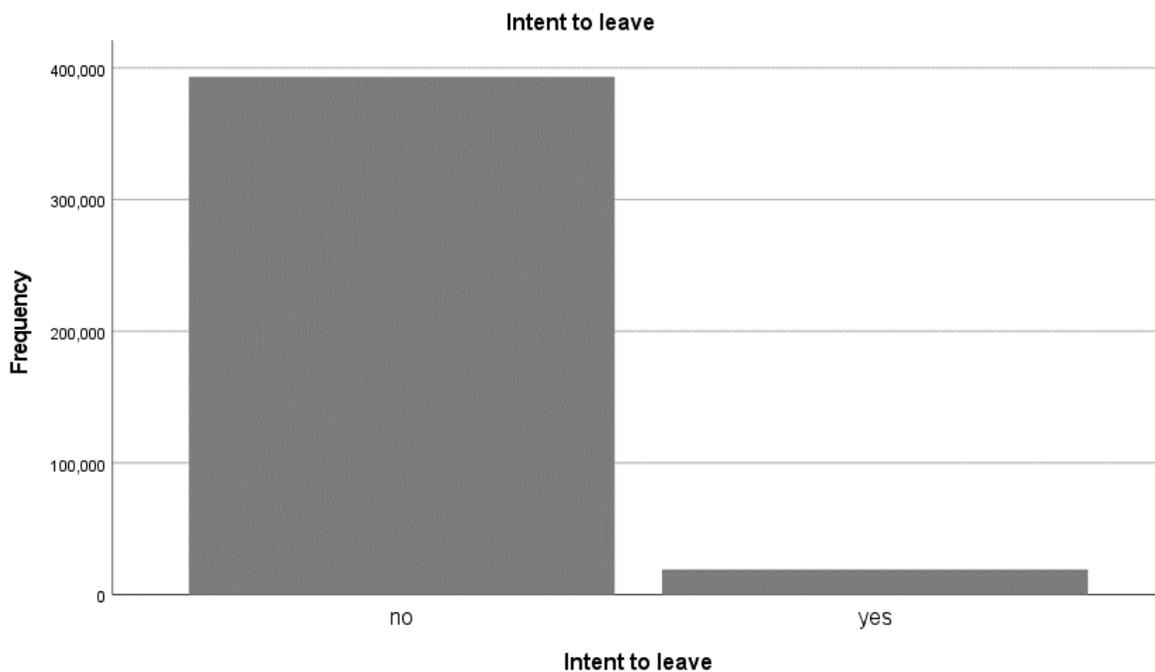
Descriptive statistics introduces the variables used in the analysis of the research question. The two predictor variables in my study were employees' perception of their work experience and employees' perception of their supervisors. Table 3 shows the mean and standard deviation for these two scale noncontinuous variables. The dichotomous variable in my study was intent to leave. Intent to leave was the variable of interest and the business problem I researched. Because the criterion variable of intent to leave was dichotomous, I chose binomial logistic regression to analyze the data. A dichotomous variable answers a yes or no question. Binomial logistic regression assesses the relationship between each predictor variable and the dichotomous variable (Saunders et

al., 2016). Table 3 shows the frequency and percentage of the dichotomous question I researched; yes or no intent to leave the organization. Figure 1 also gives a picture of the yes or no response to intent to leave. I had many more responses for no; this makes the model fit significant, despite the fact that the focus was on the yes answer to intent to leave when I ran the data. The following section, inferential statistical results, and Table 4 show the outcome of the analysis. The inferential statistical results section and Table 4 explain the research question of whether employees' perception of their work experience and employees' perception of their supervisors predicts the likelihood of employee intent to leave the organization.

**Table 3**

*Means and Standard Deviations for Quantitative Study Variables*

Variable	<i>M</i>	<i>SD</i>	Frequency	Percentage
Employee perception of work experience	30.9217	6.38		
Employee perception of supervisors	29.5495	6.17		
Employee intent to leave: No			393,154	62.9%
Employee intent to leave: Yes			19,150	3.1%

**Figure 1***Intent to Leave Frequency***Inferential Statistical Analyses Results**

The research question for this study was: What is the relationship between federal government agency employees' perception of work experience, employee perception of supervisors, and employee intent to leave?

Answer: A one-unit increase in employee perception of their work experience decreases employee intent to leave by 15%. Every unit of increase can decrease intent to leave by a sizable amount, 15%.

I used binomial logistic regression as the statistical test to analyze 359,120 complete surveys from the 2020 FEVS. Logistic regression explains the probability of intent to leave. If the odds ratio is higher than one to one,

there is a reasonable probability of decreasing intent to leave. The predictor of work experience had a significant odds ratio. The odds ratio or  $\text{Exp}(B)$  was .850 making the odds equation  $.850 - 1.0 \times 100\% = -15\%$ , but the supervisors had more of a one-to-one ratio, it was .998, making the odds equation result in  $-0\%$  ( $.998 - 1.0 \times 100\% = -0\%$ ). Thus, perception of work experience decreases intent to leave by 15%, but employees' perception of supervisors decreases intent to leave by 0%. As a result, perception of work experience is a significant predictor of intent to leave. The following is a more detailed explanation of the results.

I conducted a binary logistic regression analysis to investigate if employee perception of their work experience, employee perception of their supervisors are factors that predict intent to leave. The outcome of interest was employees' intent to leave. The possible predictor variables were employee perception of work experience and employee perception of their supervisors. The iteration was run only six times before it stabilized. It resulted in the  $[-2 \log \text{Likelihood} = 112913.761]$  and the  $[\text{Nagelkerke R squared} = .157]$ , indicating a good fit as the pseudo-R explains 16% of the variation in the criterion variable of intent to leave. The model resulted in employee perception of supervisors as not significant ( $p > 0.05$ ). However, employee perception of work experience is significant. Holding the variable employee perception of supervisors constant, employee perception of work experience, in the logistic regression analysis was found to contribute to the model. The unstandardized  $B = [-.162]$ ,  $SE = [.002]$ ,

$Wald = [10115.682], p < .001$ . The estimated odds ratio favored a positive relationship,  $[Exp(B) = [.850], 95\% CI (.848, .853)]$ . The Hosmer-Lemeshow goodness-of-fit was significant ( $p < 0.05$ ), showing that the test was leaning toward more responses on one side of the dichotomous question of no or yes, intent to leave. There were 15,948 responses of yes to intent to leave. A large number yet, only 4.6% of the total 359,120 surveys; therefore, the Hosmer-Lemeshow goodness-of-fit result was significant. In the  $EXP(B)$ , the odds ratio is .850 resulting in the odds ratio equation of  $.850 - 1.0 \times 100\% = -15\%$ ; therefore, for every one-unit increase in employee perception of their work experience, the odds ratio of intent to leave decreases by 15%. Table 4 depicts the regression summary.

**Table 4**

*Logistic Regression Predicting the Likelihood of Employee Intent to Leave based on Employee Perception of Work Experience and Supervisors.*

Variable	B	S.E.	Wald	df	Sig.	Exp(B) Odds ratio	95% CI for Exp(B) lower	95% CI for Exp(B) upper
Employee perception of work experience	-.162	.002	10115.682	1	.000	.850	.848	.853
Employee perception of supervisors	-.002	.002	1.060	1	.303	.998	.995	1.001
Constant	1.801	.037	2326.602	1	.000	6.057		

Note: n = 359,120 completed surveys

### ***Theoretical Conversation on Findings***

I used the Herzberg two-factor theory on job satisfaction as the theoretical framework to support my study. My research question, “What is the relationship between federal government agency employees' perception of work experience (intrinsic factor), employee perception of supervisors (extrinsic factor), and employee intent to leave?” has both an extrinsic and an intrinsic factor for the predictor variables. The extrinsic factor is employees' perception of supervisors, while the intrinsic factor is employees' work experience. The theory states that if the intrinsic factor increases or the extrinsic factor decreases, the result is higher job satisfaction (Herzberg et al., 1959). According to a study in my literature review by Samanez and Medina (2017), the intrinsic factor of the work itself increases job satisfaction. Furthermore, job satisfaction decreases employee intent to leave (Jarupathirun & De Gennaro, 2018). A recent study by Ganji et al. (2021) showed that job satisfaction lowered turnover intention.

Employee intent to leave is a critical business problem (Kantek & Kaya, 2017), intent to leave is the variable of interest in my study. My research showed that for every one unit of increase in positive work experience (intrinsic factor), there is a 15% decrease in employee intent to leave. The result of my study confirms the Herzberg theory counsel that increasing an intrinsic factor will increase job satisfaction. In my research, the higher the positive score employees gave their perception of their work experience, the more they were satisfied with their job and did not intend to leave. Another study noted in my literature review by Pakdel et al. (2018) also showed how the intrinsic factor of work experience was a crucial factor in job satisfaction. Furthermore, in a recent study by Da et

al. (2020), the results indicated that increasing job satisfaction lowered employee intention to leave.

### **Applications to Professional Practice**

Through this quantitative study I aimed to analyze data on factors possibly affecting employees' intent to leave an organization. Managers can improve factors in their organizations to lessen intent to leave if they know which factors affect employees. Through the two-factor theory of job satisfaction, I analyzed data on the intrinsic factor of employee perception of their work experience and the extrinsic factor of employee perception of supervisors. The result of employee perception of work experience predicting the likelihood of employee intent to leave gives managers a specific area to improve for more excellent employee retention.

Employee intent to leave is a crucial area of concern for managers because employee intent to leave lowers productivity (Nair & Salleh, 2017). Intent to leave is also costly because it takes more resources to train new workers than retain current workers (Gevrek et al., 2017). Some questions studies on intent to leave can help with are: "Why do good employees quit?" and "How can managers reduce employee intention to quit?" My study's results show that employees' perception of their work experience is a key factor in reducing intent to leave. Managers can look at the job descriptions and review employee feedback to create strategies to enhance employees' work experience. Managers can also improve work cultures and keep employees connected, especially during the COVID-19 pandemic when many employees work remotely. My study data originated from the FEVS 2020 survey; therefore, the importance of employee perception

of work experience applies to the pandemic years when more employees are remote and meetings are on a video platform.

### **Implications for Social Change**

The implications for social change that the findings in the study can affect are ways to understand employees' intent to leave their organization. It is more cost-effective to retain experienced employees than hire and train new employees (Gevrek et al., 2017). The variable in the study that predicted the likelihood of employee intent to leave was employee perception of their work experience. When employee perception of their work experience rose, intent to leave lowered. Work experience is a significant predictor variable. As a result, managers can improve the productivity of their organizations by understanding the reasons employees intend to leave.

Employees are also affected by the intention to leave individually. Whether it is their own intent to leave or that of colleagues, intent to leave can negatively impact the workplace culture (Li et al., 2016). Jobs are often intertwined, and if employees are not committed to their work, it can affect the whole organization's productivity. Employees are all part of society, and as they achieve access to work improvements such as career development and effective communication, they can have more excellent stability in their employment. Employment stability may positively affect a community and society by improving long-term wealth.

### **Recommendations for Action**

The findings of this study indicate that the predictor variable employee perception of their work experience influenced employee intent to leave their jobs within the year for

a different organization. My study results showed that increasing employee perception of their work experience by just one unit employees' intent to leave their job reduced by 15%. Therefore, I would recommend that managers focus first on improving their employees' work experience. Work experience is an intrinsic factor, and according to the Herzberg two-factor theory, when the intrinsic factor is improved, job satisfaction increases (Herzberg et al., 1959). This study on intent to leave is useful in literature and training webinars that focus on improving employee perception of their work experience. The following are some areas the study can help promote.

### **Positive Work Culture**

Positive work culture may improve employees' perception of their work experience. A positive work culture embraces employee communication and work-life balance (Chattopadhyay, 2018). Employers can provide support for a positive work culture to encourage positive employee perception of their work experience.

### **Employee Career Development**

Learning and training through professional development can be made available to employees at their workplace. Managers can choose what to offer that will benefit the organization as well as the employee. Employee development opportunities can determine an employee's career (Aljehani & Javed, 2021). If this opportunity is available in the employee's current position, it may help lower employee intent to leave the organization. Managers can support individual growth through these training sessions.

## **Connectivity and Communication**

Managers should establish strategies to improve job satisfaction by keeping employees connected, especially during the COVID-19 pandemic years when many employees work remotely. Communication can be a large part of this strategy. Managers can connect with employees, lessening the gap between managers and employees through communication. Some proven ways to establish communication are with townhalls and peer support networks. Managers can set up cohort resource groups to aid employees' connectivity. Support systems are essential in 2020 and the years following the pandemic, with many employees transitioning to work from home during the COVID-19 outbreak. Isolation has become an issue; connectivity can improve effectiveness in teamwork. Peer support can help employees stay happy, committed to their work, and connected to their teams and organizations.

## **Employee Feedback**

Employees can also act by requesting career development programs. Employees can participate in company surveys and feedback opportunities to help shape their work experience. Participation in work events can aid communication between employees, even if it is only a virtual coffee break session. The more employees communicate their needs, the better work experiences their organization can offer.

## **Recommendations for Further Research**

Recommendations for further research address the limitations identified in the opening section of this study. Duplication of the study in multiple types of organizations would be my first recommendation. The Herzberg two-factor theory includes many types

of intrinsic and extrinsic work factors. I would recommend applying diverse factors as predictor variables for the likelihood of employee intent to leave. In binomial logistic regression, the analysis can run multiple times using various factors from a survey.

I would also recommend comparing surveys from employed workers to surveys completed in an exit interview as the exiting employee would have no concern about their answers affecting their job. Interviews and the FEVS survey for a mixed-methods study may also reveal more in-depth information concerning the business problem of employee intent to leave. Finally, I would recommend repeating this study with the same variables in different years and having a year-by-year or decade-by-decade comparison. The FEVS is an annual survey with public data available for many years.

### **Reflections**

My experience within the DBA doctoral study process has transformed my thought process. I now look to research my ideas and listen to others investigating diverse topics as learning is continual. My peers, doctoral chair, doctoral committee, and quantitative statistics tutors have all motivated and taught me much along this journey. I enjoyed doing the research and running the data through the statistics program. Initially, I thought I could not use more than 337 responses and ended up analyzing 359,120 survey responses and interpreted the results. The result of one unit of increase in positive work experience decreasing 15% of employees' intent to leave their organization taught me how a large data set can provide valuable information. It was great to have such a detailed result and pass it on to others working on this business problem. I look forward to working on more quantitative research.

I used secondary data from an annual survey collected electronically by the United States Office of Personnel Management to mitigate personal bias. Appendix A lists the survey questions in my study. To include all survey questions in a topic, I used a complete section of FEVS for each predictor variable.

### **Conclusion**

Intent to leave is a business problem tackled by managers of many types of organizations. My quantitative study into the likelihood of employee intent to leave showed that for every unit of increase in employee perception of their work experience, their intent to leave decreases by 15%. That result gives managers an area to implement strategies to improve their company's productivity, especially during these pandemic years where COVID-19 has isolated many employees through remote work requirements. The significant relationship between intent to leave and employee work experience can guide managers where change is needed to lower intent to leave. The result of positive work experience decreasing intent to leave can be valuable knowledge to strengthen an organization's workforce by retaining trained employees.

## References

- Abramson, E. L., Paul, C. R., Petershack, J., Serwint, J., Fischel, J. E., Rocha, M., Treitz, M., McPhillips, H., Lockspeiser, T., Hicks, P., Tewksbury, L., Vasquez, M., Tancredi, D. J., & Li, S.-T. T. (2018). Conducting quantitative medical education research: From design to dissemination. *Academic Pediatrics, 18*(2), 129–139. <https://doi.org/10.1016/j.acap.2017.10.008>
- Acikgoz, Y., Sumer, H. C., & Sumer, N. (2016). Do employees leave just because they can? Examining the perceived employability-turnover intentions relationship. *The Journal of Psychology, 150*(5), 666 – 683. <https://doi.org/10.1080/00223980.2016.1160023>
- Ahmed, S., Taskin, N., Pauleen, D. J., & Parker, J. (2017). Motivating information technology professionals: The case of New Zealand. *Australasian Journal of Information Systems, 21*(0), 1 – 30. <https://doi.org/10.3127/ajis.v21i0.1421>
- Aho, O. W. (2020). The link between job satisfaction and the intent to leave among casino employees. *Journal of Human Resources in Hospitality & Tourism, 19*(4), 417 – 442. <https://doi.org/10.1080/15332845.2020.1763756>
- Alfayad, Z., & Arif, L. S. M. (2017). Employee voice and job satisfaction: An application of Herzberg's two-factor theory. *International Review of Management and Marketing, 7*(1), 150 – 156. <https://www.econjournals.com/index.php/irmm>
- Aljehani, R., & Javed, U. (2021). Relationship between career development and employee loyalty. *PalArch's Journal of Archaeology of Egypt/Egyptology, 18*(14), 123 – 134. <https://archives.palarch.nl/index.php/jae/index>

- Alparslan, A., & Saner, T. (2020). The influence of sustainable talent management on job satisfaction and organizational commitment: Moderating role of in-service training. *Revista de Cercetare Si Interventie Sociala*, 69, 96 – 121. <https://doi.org/10.33788/rcis.69.6>
- Alshmemri, M., Shahwan-Akl, L., & Maude, P. (2017). Herzberg's two-factor theory. *Life Science Journal*, 14(5), 12 – 16. <https://doi.org/10.7537/marslsj140517.03>
- Amzat, I. H., Don, Y., Fauzee, S. O., Hussin, F., & Raman, A. (2017). Determining motivators and hygiene factors among excellent teachers in Malaysia: An experience of confirmatory factor analysis. *International Journal of Educational Management*, 31(2), 78 – 97. <https://doi.org/10.1108/IJEM-03-2015-0023>
- Ann, S., & Blum, S. C. (2020). Motivating senior employees in the hospitality industry. *International Journal of Contemporary Hospitality Management*, 32(1), 324 – 346. <https://doi.org/10.1108/IJCHM-08-2018-0685>
- Aquino, E., Lee, Y.-M., Spawn, N., & Bishop-Royse, J. (2018). The impact of burnout on doctorate nursing faculty's intent to leave their academic position: A descriptive survey research design. *Nurse Education Today*, 69, 35 – 40. <https://doi.org/10.1016/j.nedt.2018.06.027>
- Arfat, A. (2017). The relationship among job characteristics organizational commitment and employee turnover intentions: A reciprocation perspective. *Journal of Work-Applied Management*, 10(1), 74 – 92. <https://doi.org/10.1108/JWAM-09-2017-0027>

- Armstrong, C. S., & Kepler, J. D. (2018). Theory, research design assumptions, and causal inferences. *Journal of Accounting and Economics*, 66(2-3), 366 – 373.  
<https://doi.org/10.1016/j.jacceco.2018.08.012>
- Auxier, N., & Woodruff, L. L. (2018). Job satisfaction and intent to leave among dedicated education unit and traditional clinical teachers. *Journal of Continuing Education in Nursing*, 49(12), 575 – 580. [https://doi-org 10.3928/00220124-20181116-09](https://doi-org.10.3928/00220124-20181116-09)
- Batool, T., e Habiba, U., & Saeed, A. (2019). The relationship between students' working memory capacity and mathematical performance at secondary school level. *Bulletin of Education & Research*, 41(3), 177 – 192.  
<https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ1244644>
- Beiu, A., & Davidescu, A. A. (2018). An empirical investigation of the expectancy theory among Romanian employees. *Journal of Social & Economic Statistics*, 7(1), 19-31. <http://www.jses.ase.ro/downloads/Vol7No1/Beiu.pdf>
- Benge, M. (2018). The impact of supervisory management on extension agent job satisfaction. *Journal of Human Sciences and Extension*, 6(3), 200-215.  
<https://www.jhseonline.com>
- Bercu, A. M., & Onofrei, M. (2017). The empirical research on civil servants' motivation: Evidence from Romania. *Managing Global Transitions: International Research Journal*, 15(4), 399 – 417.  
<https://doaj.org/article/ce66a3f60ef943f78e3e5c59c2a00859>

- Brockman, V. M. (1971). The Herzberg controversy. *Personnel Psychology*, 24(2), 155-189. <https://doi.org/10.1111/j.1744-6570.1971.tb02470.x>
- Bogaert, K., Leider, J. P., Castrucci, B. C., Sellers, K., & Whang, C. (2019). Considering leaving but deciding to stay: A longitudinal analysis of intent to leave in public health. *Journal of Public Health Management and Practice*, 25(2), 78. [10.1097/PHH.0000000000000928](https://doi.org/10.1097/PHH.0000000000000928)
- Bridgman, T., Cummings, S., & Ballard, J. (2019). Who built Maslow's pyramid? A history of the creation of management studies' most famous symbol and its implications for management education. *Academy of Management Learning & Education*, 18(1), 81-98. <https://doi.org/10.5465/amle.2017.0351>
- Burmeister, E. A., Kalisch, B. J., Xie, B., Doumit, M. A. A., Lee, E., Ferraresion, A., Terzioglu, F., & Bragadottir, H. (2019). Determinants of nurse absenteeism and intent to leave: An international study. *Journal of Nursing Management*, 27(1), 143-153. <https://doi.org/10.1111/jonm.12659>
- Byrne, Z. S., Hayes, T. L., & Holcombe, K. J. (2017). Employee engagement using the Federal Employee Viewpoint Survey. *Public Personnel Management*, 46(4), 368-390. <https://doi.org/10.1177/0091026017717242>
- Cánovas, A. G., Millán, J. F., Navas, M. F., & Mas, V. S. (2020). Development of the performance-potential survey for the quantitative placement of employees on the talent matrix. *Intangible Capital*, 16(1), 1-13. <http://dx.doi.org/10.3926/ic.1362>
- Carter, K. M., Gonzalez-Mule, E., Mount, M. K., Oh, I.-S., & Zachar, L. S. (2019).

- Managers moving on up (or out): Linking self-other agreement on leadership behaviors to succession planning and voluntary turnover. *Journal of Vocational Behavior*, 115,103328. [10.1016/j.jvb.2019.103328](https://doi.org/10.1016/j.jvb.2019.103328)
- Chan, S. H., & Lay, Y. F. (2018). Examining the reliability and validity of research instruments using partial least squares structural equation modeling (pls-sem). *Journal of Baltic Science Education*, 17(2), 239-251.  
<https://www.scientiasocialis.lt/jbse/>
- Chattopadhyay, D. (2018). Work that works: An emergentics guide: Emergineering a positive organizational culture. *Globsyn Management Journal*, 12(1/2), 68-70.  
<http://www.globsyn.edu.in/research/globsyn-management-journal.php>
- Chu, D. C. (2018). Employment motivation and job-related satisfaction: A comparison of policewomen's perceptions in Dubai and Taipei. *Policing & Society*, 28(8), 915-929. [10.1080/10439463.2017.1329306](https://doi.org/10.1080/10439463.2017.1329306)
- Chung, Y., & Choo, H. (2019). A structural path to job satisfaction, burnout, and intent to leave among child protection workers: A South Korean study. *Children and Youth Services Review*, 100, 304-312.  
<https://doi.org/10.1016/j.childyouth.2019.03.018>
- Congressional Research Service. (2020). Federal workforce statistics sources: OPM and OMB. *CRS Report*. <https://www.fas.org/sgp/crs/misc/R43590.pdf>
- Cox, C. A. (2019). Nurse manager job satisfaction and retention: A home healthcare perspective. *Nursing Management*, 50(7), 16-23.  
[10.1097/01.NUMA.0000558512.58455.68](https://doi.org/10.1097/01.NUMA.0000558512.58455.68)

- Curtis, E. A., Comiskey, C., & Dempsey, O. (2016). Importance and use of correlational research. *Nurse Researcher*, 23(6), 20. <https://doi.org/10.7748/nr.2016.e1382>
- Da, S., He, Y., & Zhang, X. (2020). Effectiveness of psychological capital intervention and its influence on work-related attitudes: Daily Online Self-learning method and randomized controlled trial design. *Internal Journal of Environmental Research and Public Health*, 17(23). <https://doi.org/10.3390/ijerph17238754>
- De Oliveira, M. Z., De Andrade, A. L., Beria, F. M., & Gomes, W. B. (2019). Models for antecedents of turnover intention and behavior among Brazilian employees. *International Journal for Educational and Vocational Guidance*, 19(3), 363-389. <https://doi.org/10.1007/s10775-018-9384-3>
- Devitt, P. (2015). Understanding quantitative data analysis. *Nursing children & young people*, 27(7), 12. <https://doi.org/10.7748/ncyp.27.7.12.s15>
- Dhamija, P., Gupta, S., & Bag, S. (2019). Measuring of job satisfaction: The use of quality of work life factors. *Benchmarking: An International Journal*, 26(3), 871-892. <https://doi.org/10.1108/BIJ-06-2018-0155>
- Dias, D., Leite, A., Ramires, A., & Bicho, P. (2017). Working with cancer: Motivation and job satisfaction. *International Journal of Organizational Analysis*, 25(4), 662-686. <https://doi.org/10.1108/IJOA-12-2016-1096>
- Dobre, I., Davidescu, A. A., & Eid, I. (2017). Key factors of health employee motivation in Jordan. Evidence from dual-factor theory based on structural equation models. *Economic Computation & Economic Cybernetics Studies & Research*, 51(2), 39-54. <https://ideas.repec.org/a/cys/ecocyb/v50y2017i2p.html>

- Egcas, R. A. (2017). Employment security of nurses: Baseline for a strategic human resource direction. *Asia Pacific Journal of Multidisciplinary Research*, 5(4), 39-47. <http://www.apjmr.com/wp-content/uploads/2017/11/APJMR-2017.5.4.05-1.pdf>
- Emiroglu, O., Guneyli, A., & Burgul, N. S. (2017). Motivational sources of teachers in a developing country. *Revista de Cercetare Si Interventie Sociala*, 57, 51-66. Retrieved from <http://www.rcis.ro/en/section1/145-volumul-572017iunie/2371-motivational-sources-of-teachers-in-a-developing-country.html>
- Escardibul, J.-O., & Afcha, S. (2017). Determinants of the job satisfaction of Ph.D. holders: An analysis by gender, employment sector, and type of satisfaction in Spain. *Higher Education*, 74(5), 855-875. <https://doi.org/10.1007/s10734-016-0081-1>
- Fareed, K., & Jan, F. A. (2016). Cross-Cultural validation test of Herzberg's two factor theory: An analysis of bank officers working in Khyber Pakhtunkhwa. *Journal of Managerial Sciences*, 10(2), 285-300. [https://www.qurtuba.edu.pk/jms/default\\_files/JMS/10\\_2/JMS\\_July\\_December2016\\_285-300.pdf](https://www.qurtuba.edu.pk/jms/default_files/JMS/10_2/JMS_July_December2016_285-300.pdf)
- Farkas, A., & Porumb, B. (2020). A multi-attribute sales comparison method for real estate valuation. *Periodica Polytechnica: Social & Management Sciences*, 28(2), 1-11. <https://doi.org/10.3311/PPso.13897>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G\*Power 3: A flexible

statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.

<https://www.psychologie.hhu.de/arbeitsgruppen/allgemeine-psychologie-und-arbeitspsychologie/gpower.html>

Fernandes, G. M. (2016). Organizational climate and child welfare workers' degree of intent to leave the job: Evidence from New York. *Children and Youth Services Review*, 60(C), 80-87. <https://doi.org/10.1016/j.chidyouth.2015.11.010>

Ford, T. G., Olsen, J., Khojasteh, J., Ware, J., & Urick, A. (2019). The effects of leader support for teacher psychological needs on teacher burnout, commitment, and intent to leave. *Journal of Educational Administration*, 57(6), 615-634. <https://doi.org/10.1108/JEA-09-2018-0185>

Ganji, S. F. G., Johnson, L. W., Sorkhan, V. B., & Banejad, B. (2021). The effect of employee empowerment, organizational support, and ethical climate on turnover intention: The mediating role of job satisfaction. *Iranian Journal of Management Studies*, 14(2), 311-329. <http://www.ijms.ir>

Garver, M. S., & Mentzer, J. T. (1999). Logistics research methods: Employing structural equation modeling to test for construct validity. *Journal of Business Logistics*, 20(1), 33-57. <https://search.proquest.com/openview/a778d630df6747e2918f1527a34cbd76/1?pq-origsite=gscholar&cbl=36584>

Gevrek, D., Spencer, M., Hudgins, D., & Chambers, V. (2017). I can't get no satisfaction:

The power of perceived differences in employee intended retention and turnover.

*Personnel Review*, 46(5), 1019-1043. <https://doi.org/10.1108/PR-06-2015-0189>

Griffiths, A., Royse, D., Culver, K., Piescher, K., & Zhang, Y. (2017). Who stays, who goes, who knows? A state-wide survey of child welfare workers. *Children & Youth Services Review*, 77, 110-117.

<https://doi.org/10.1016/j.childyouth.2017.04.012>

Grigaliunas, B. S., & Herzberg, F. (1971). Relevancy in the test of motivator-hygiene theory. *Journal of Applied Psychology*, 55(1), 73-79.

<https://doi.org/10.1037/h0030633>

Grujicic, M., Bata, J. J., Radjen, S., Novakovic, B., & Grujicic, S. S. (2016). Work motivation and job satisfaction of health workers in urban and rural areas.

*Vojnosanitetski Pregled: Military Medical & Pharmaceutical Journal of Serbia*, 73(8), 735-743. <https://doi-org/10.2298/VSP140715062G>

Guchait, P., Cho, S., & Meurs, J. (2015). Psychological contracts, perceived organizational and supervisor support: Investigating the impact on intent to leave among hospitality employees in India. *Journal of Human Resources in Hospitality & Tourism*, 14(3), 290-315. <https://doi.org/10.1080/15332845.2015.1002070>

Habib, N., Awan, S. H., & Sahibzada, S. A. (2017). Is Herzberg's two factor theory valid in the context of performance management system? A study of private banks of Pakistan. *Journal of Managerial Sciences*, 11, 183-198.

<http://www.qurtuba.edu.pk/jms/>

Haider, S., Bao, G., Larsen, G. L., & Draz, M. U. (2019). Harnessing sustainable

- motivation: A grounded theory exploration of public service motivation in local governments of the state of Oregon, United States. *Sustainability* 11(11), 3105. <https://doi.org/10.3390/su11113105>
- Han, K., Trinkoff, A. M., & Gurses, A. P. (2015). Work-related factors, job satisfaction and intent to leave the current job among United States nurses. *Journal of Clinical Nursing*, 24(2122), 3224-3232. <https://doi-org/10.1111/jocn.12987>
- Harrell, A. M., & Stahl, M. J. (1981). A behavioral decision theory approach for measuring McClelland's Trichotomy of Needs. *Journal of Applied Psychology*, 66(2), 242-247. <https://doi.org/10.1037/0021-9010.66.2.242>
- Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work*. Transaction.
- Holmberg, C., Sobis, I., & Carlström, E. (2018). Job satisfaction among Swedish mental health nursing staff: A cross-sectional survey. *International Journal of Public Administration*, 39(6), 429-436. <https://doi-org/10.1111/inm.12339>
- Hur, Y. (2018). Testing Herzberg's two-factor theory of motivation in the public sector: Is it applicable to public managers? *Public Organization Review*, 18(3), 329-343. <https://doi.org/10.1007/s11115-017-0379-1>
- Jamison, I. B. (2003). Turnover and retention among volunteers in human service agencies. *Review of Public Personnel Administration*, 23(2), 114-132. <https://doi.org/10.1177/0734371X03023002003>
- Jarupathirun, S., & De Gennaro, M. (2018). Factors of work satisfaction and their

- influence on employee turnover in Bangkok, Thailand. *International Journal of Technology*, 9(7), 1460-1468. <https://doi.org/10.14716/ijtech.v9i7.1650>
- Jones, L. M. (2019). Strategies for retaining a multigenerational workforce. *J Bus Fin Aff*. 2017;6(2). 271. [http://doi: 10.4172/2167-0234.1000271](http://doi:10.4172/2167-0234.1000271)
- Kantek, F., & Kaya, A. (2017). Professional values, job satisfaction, and intent to leave among nursing managers. *Journal of Nursing Research*, 25(4), 319-325. [https://doi-org/ 10.1097/JNR.0000000000000164](https://doi-org/10.1097/JNR.0000000000000164)
- Kao, A. C., Jager, A. J., Koenig, B. A., Moller, A. C., Tutty, M. A., Williams, G. C., & Wright, S. M. (2018). Physician perception of pay fairness and its association with work satisfaction, intent to leave practice, and personal health. *Journal of General Internal Medicine*, 33(6), 812-817. [https://doi-org/ 10.1007/s11606-017-4303-8](https://doi-org/10.1007/s11606-017-4303-8)
- Kero, P., & Lee, D. (2016). Likert is pronounced "LICK-urt" not "LIE-kurt" and the data are ordinal not interval. *J Appl Meas*. 17(4), 502-509. <https://pubmed.ncbi.nlm.nih.gov/28009595/>
- Khanna, V. (2017). Measuring job satisfaction of academicians using Herzberg Theory. *Delhi Business Review*, 18(2), 75-86. [https://www.ijstm.com/images/short\\_pdf/1490359201\\_P280-291.pdf](https://www.ijstm.com/images/short_pdf/1490359201_P280-291.pdf)
- Kheirkhah, M., Masrour, M., Sefidi, M., & Jalal, E. (2018). The relationship between job motivation and its dimensions with organizational commitment and its dimensions in midwives of sanitary and therapeutic centers, Arak University of Medical Sciences, 2017. *Journal of Family Medicine & Primary Care*, 7(2), 368-

373. [https://doi-org/ 10.4103/jfmpe.jfmpe\\_343\\_17](https://doi-org/10.4103/jfmpe.jfmpe_343_17)

Khoshnevis, H., & Tahmasebi, A. (2016). The motivation system in a governmental organization. *Procedia – Social and Behavioral Sciences*, 230, 212-218.

<https://doi.org/10.1016/j.sbspro.2016.09.027>

Kiehne, J., Ceausu, I., Arp, A. K., & Schuler, T. (2017). Middle management's role in strategy implementation projects: A behavioral analysis. *Proceedings of the International Conference on Business Excellence*, 11(1), 539.

<https://doi.org/10.1515/picbe-2017-0058>

Kotni, V. V. D. P., & Karumuri, V. (2018). Application of Herzberg two-factor theory model for motivating retail salesforce. *IUP Journal of Organizational Behavior*, 17(1), 24-42. <https://ssrn.com/abstract=3223240>

Krczal, E. (2017). Identifying the determinants for attractiveness of interdisciplinary forms of care from the perspective of health care professionals. *International Journal of Integrated Care (IJIC)*, 17(5), 1-2. <http://doi.org/10.5334/ijic.3333>

Lamb, D., & Ogle, A. (2019). What prevent motives determine the decision to volunteer at a sporting event: How can Herzberg's two-factor theory help? *Event Management* 23(4), 495-510.

<https://doi.org/10.3727/152599519X15506259855643>

Langbein, L., & Stazyk, E. C. (2018). The anatomy of retention in the U.S. federal government: Exit, voice or money? *International Public Management Journal*, 21(1), 33-52. <https://doi.org/10.1080/10967494.2017.1325806>

Lee, T. W., Hom, P., Eberly, M., & Li, J. (2018). Managing employee retention

and turnover with 21st century ideas. *Organizational Dynamics*, 47(2), 88-98.

<https://doi.org/10.1016/j.orgdyn.2017.08.004>

Lee, H.-F., Chiang, H., & Kuo, H. (2019). Relationship between authentic leadership and nurses' intent to leave: The mediating role of work environment and burnout.

*Journal of Nursing Management*, 27(1), 52-65. <https://doi-org/10.1111/jon.12648>

Lee, M.-A., Ju, Y.-H., & Lim, S.-H. (2020). A study on the intent to leave and stay

among hospital nurses in Korea: A cross sectional survey. *Journal of Nursing*

*Management*, 28(2), 332-341. <https://doi-org/10.1111/jonm.12929>

Leider, J. P., Harper, E., Shon, J. W., Sellers, K., & Castrucci, B. C. (2016). Job

satisfaction and expected turnover among federal, state, and local public health

practitioners. *American Journal of Public Health*, 106(10), 1782-1788. [https://doi-](https://doi-org/10.2105/AJPH.2016.303305)

[org/10.2105/AJPH.2016.303305](https://doi-org/10.2105/AJPH.2016.303305)

Lewis, T., Gorsak, M., & Yount, N. (2019). An automated refusal conversion strategy for web surveys. *Field Methods*, 31(4), 309-327.

<https://doi.org/10.1177/1525822X19871016>

Li, J., Lee, T. W., Mitchell, T. R., Horn, P. W., & Griffeth, R. W. (2016). The effects of

proximal withdrawal states on job attitudes, job searching, intent to leave, and

employee turnover. *Journal of Applied Psychology*, 101(10), 1436-1456.

<https://doi:10.1037/ap10000147>

Liss-Levinson, R., Bharthapudi, K., Leider, J. P., & Sellers, K. (2015). Loving and

leaving public health: Predictors of intentions to quit among state health agency

- workers. *Journal of Public Health Management and Practice: JPHMP*, 21(6), S91-S101. <https://doi.org/10.1097/PHH.0000000000000317>
- Liu, Y., Wu, L.-M., Chou, P.-L., Chen, M.-H., Yang, L.-C., & Hsu, H.-T. (2016). The influence of work-related fatigue, work conditions, and personal characteristics on intent to leave among new nurses. *Journal of Nursing Scholarship*, 48(1), 66-73. <https://doi-org/10.1111/jnu.12181>
- Liu, Y. S., & Arendt, S. W. (2016). Development and validation of a work motive measurement scale. *International Journal of Contemporary Hospitality Management*, 28(4), 700-716. <https://doi.org/10.1108/IJCHM-02-2014-0091>
- Lo, M. L. (2016). You can only see what you have chosen to see. *International Journal for Lesson & Learning Studies*, 5(3), 170-179. <https://doi.org/10.1108/IJLLS-05-2016-0011>
- Locke, E. A., & Schattke, K. (2018). Intrinsic and extrinsic motivation: Time for expansion and clarification. *Motivation Science*. Advance online publication. <https://doi.org/10.1037/mot0000116>
- Madan, S. (2017). Moving from employee satisfaction to employee engagement. *CLEAR International Journal of Research in Commerce & Management*, 8(6), 46. <http://www.ijrcm.org.in/>
- Manaf, A. M. A., Shariffadeen, T. S. A. T. M. A., Buyong, M., & Arabi, I. S. (2019). The relationships of individual well-being and working environment with job satisfaction among factory workers in Malaysia. *Intellectual Discourse*, 27(1), 221-243. <https://journals.iium.edu.my/intdiscourse/index.php/id/article/view/1354>

- Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6<sup>th</sup> ed.). Sage.
- Masefield, S. C., Megaw, A., Barlow, M., White, P. C. L., Altink, H., & Grugel, J. (2020). Repurposing NGO data for better research outcomes: A scoping review of the use and secondary analysis of NGO data in health policy and systems research. *Health Research Policy and Systems*, 18(1), 1-22. <https://doi-org/10.1186/s12961-020-00577-x>
- Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396. <https://doi.org/10.1037/h0054346>
- Massingham, P. R. (2018). Measuring the impact of knowledge loss: A longitudinal study. *Journal of Knowledge Management*, 22(4), 721-758. <https://doi.org/10.1108/JKM-08-2016-0338>
- Matla, S. J., & Xaba, M. I. (2019). Teachers' job satisfaction at well-performing, historically disadvantaged schools: A quantitative research in the Gauteng Province, South Africa. *International Journal of Education Management*, 34(4), 725-736. <https://doi.org/10.1108/IJEM-08-2019-0303>
- McClelland, D. C. (1961). *The achieving society*. Van Nostrand.
- McDonald, J. H. (2014). *Handbook of biological statistics* (3<sup>rd</sup> ed.). Sparky house publishing.
- McMillan, D. J., McConnell, B., & O'Sullivan, H. (2016). Continuing professional development – why bother? Perceptions and motivations of teachers in Ireland. *Professional Development in Education*, 42(1), 150-167. <https://doi.org/10.1080/19415257.2014.952044>

- Merzljakova, K. V., & Kuligina, N. V. (2018). Features of motivation of health care workers' professional activity. *Sovremennye Issledovaniâ Social'nyh Problem*, 9(12), 127. <https://doi.org/10.12731/2218-7405-2018-12-127-139>
- Mircioiu, C., & Atkinson, J. (2017). A comparison of parametric and non-parametric methods applied to a Likert Scale. *Pharmacy (Basel, Switzerland)*, 5(2), 26. [10.3390/pharmacy5020026](https://doi.org/10.3390/pharmacy5020026)
- Moon, K., & Park, J. (2019). Leadership styles and turnover behavior in the US federal government: Does span of control matter? *International Public Management Journal*, 22(3), 417-443. <https://doi.org/10.1080/10967494.2018.1557767>
- Nair, M. S., & Salleh, R. (2017). Linking trust and turnover intention: A conceptual framework. *Global Business and Management Research: An International Journal*, 9, 281. <https://search.proquest.com/openview/ba93cf101c6362eee8e5ffc726fc64b9/1?pq-origsite=gscholar&cbl=696409>
- National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1978). *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html>
- Nelson, H. W., Yang, B. K., Carter, M. W., Monahan, E., & Engineer, C. (2020). Nursing

home administrator's job satisfaction, work stressors, and intent to leave. *Journal of Applied Gerontology: The Official Journal of the Southern Gerontological Society*. Online publication. <https://doi.org/10.1177/0733464819896572>

Nowrouzi-Kia, B., & Fox, M. T. (2019). Factors associated with intent to leave in registered nurses working in acute care hospitals: A cross-sectional random sample study in Ontario, Canada. *Workplace Health & Safety*, 68(3), 121-128. <https://doi-org/10.1177/2165079919884956>

Olasupo, M. O., Idemudia, E. S., Arowosegbe, G. S., & Fagbenro, D. A. (2019). Pay satisfaction and organizational politics as predictors of quality of work life among government employees. *European Review of Applied Sociology*, 12(18), 32-42. <https://doi-org/10.1515/eras-2019-0003>

Ong, J. F. B., Tan, J. M. T., Villareal, R. F. C., & Chiu, J. L. (2019). Impact of quality work life and prosocial motivation on the organizational commitment and turnover intent of public health practitioners. *Review of Integrative Business and Economics Research*, 4(8), 24-43. <https://search.proquest.com/openview/6b6ff7d9beff3d54d632423ca22557fb/1?pq-origsite=gscholar&cbl=2032316>

OPM news release. (2020). OPM announces 2020 federal viewpoint survey results. U.S. Office of Personnel Management <https://www.opm.gov/news/releases/2020/11/news-opm-releases-results-from-federal-employee-viewpoint-survey-fevs/>

- OPM. (2019). Federal employee viewpoint survey. U.S. Office of Personnel Management. <https://www.opm.gov/fevs/about>
- OPM. (2019a). Technical Report. U.S. Office of Personnel Management. <https://www.opm.gov/fevs/reports/technical-reports/technical-report/technical-report/2019/2019-technical-report.pdf>
- OPM. (2020). Federal employee viewpoint survey. U.S. Office of Personnel Management. <https://www.opm.gov/fevs/about>
- Ozsoy, E. (2019). An empirical test of Herzberg's two-factor motivation theory. *Marketing & Management of Innovations, 1*, 11-20. <http://doi.org/10.21272/mmi.2019.1-01>
- Pakdel, F., Khodadoust, K., Pakdel, S., Nosrati, S., Amaghani, F., Farokhnia, H., & Ghanizadeh, M. (2018). Factors affecting job motivation among faculty members of Tabriz School of Dentistry based on the Herzberg's 2-factor theory. *Dental Journal of Hamadan University of Medical Sciences, 10*(2), 57-62. <https://doi-org/10.15171/ajdr.2018.13>
- Patino, C. M., & Ferreira, J. C. (2018). Meeting the assumptions of statistical tests: an important and often forgotten step to reporting valid results. *Jornal brasileiro de pneumologia: publicacao oficial da Sociedade Brasileira de Pneumologia e Tisiologia, 44*(5), 353. <https://doi.org/10.1590/s1806-37562018000000303>
- Petersen, E., Wascher, M., & Kier, K. (2017). Analysis of pharmacy student motivators and deterrents for professional organization involvement. *Currents in Pharmacy Teaching and Learning, 9*(4), 543-550. <https://doi.org/10.1016/j.cptl.2017.03.024>

- Porter, L. W., & Lawler, E. E. (1968). *Managerial attitudes and performance*. Dorsey Press and Richard D. Irwin.
- Raj, S. K., Chand, P. P., & Azam, M. R. (2019). Factors affecting academic performance of business students at the University of Fiji: A survey. *E-Journal of Business Education & Scholarship of Teaching*, 13(3), 27-36. <https://www.ejbest.org>
- Renbarger, R. L., Sulak, T. N., & Kaul, C. R. (2019). Finding, accessing, and using secondary data for research on gifted education and advanced academics. *Journal of Advanced Academics*, 30(4), 463-473.  
<https://doi.org/10.1177/1932202X19864117>
- Robinson, L. B., & Volkert, D. (2018). Support issues and nursing doctoral students' intent to leave. *Nursing Education Perspectives*, 39(5), 297-298.  
<https://doi-org/10.1097/01.NEP.0000000000000380>
- Ruijter, E. H. J. M., & Huff, R. F. (2016). Breaking through barriers: The impact of organizational culture on open government reform. *Transforming Government: People, Process and Policy*, 10(2), 335-350. <https://doi.org/10.1108/TG-07-2015-0028>
- Ruiz, C. A., & Davis, A. (2017). Strategies to retain millennial employees at full-service restaurants. *International Journal of Applied Management and Technology*, 16, 166-185. <https://doi.org/10.5590/IJAMT.2017.16.1.11>
- Sajid, M., Rana, R. A., & Tahir, S. N. (2018). Development of Teacher Motivation scale at secondary level. *Journal of Research & Reflections in Education (JRRE)*, 12(2), 286. <https://www.ue.edu.pk/beta/jrre/articles/article12.pdf>

- Samanez, H. S. M., & Medina, M. D. P. (2017). Work motivation and job satisfaction of a private health care organization staff. *Hoizonte Médico, 17*(4), 42-52.  
<https://doaj.org/article/d973f090f4ed4b2a81b0d37a991f6c3b>
- Saunders, M., Lewis, P., & Thornhill, A. (2016). *Quantitative Research Methods for Business Students* (7<sup>th</sup> ed.). Pearson.
- Saunders, M. N. K., & Bezzina, F. (2015). Reflections on conceptions of research methodology among management academics. *European management journal 33*(5), 297-304. <https://doi.org/10.1016/j.emj.2015.06.002>
- Savoy, C., & Wood, B. (2015). Perceptions of job satisfaction among radiation therapists in Louisiana. *Radiation Therapist, 24*(1), 11. <https://www.asrt.org>
- Seeram, E. (2019). An overview of correlational research. *Radiologic Technology, 91*(2), 176-179. <http://www.radiologictechnology.org/content/91/2/176.extract>
- Shannon, E. A. (2019). Motivating the workforce: Beyond the ‘two-factor’ model. *Australian Health Review, 43*(1), 98-102. <https://doi-org/10.1071/AH16279>
- Shojaeimotlagh, V., Valizadeh, S., Hasankhani, H., & Bozorgomid, A. (2018). Psychological needs, satisfaction and intention to migrate in Iranian nurses: A qualitative content analysis. *Iranian Journal of Public Health, 47*(8), 1201-1208.  
<http://ijph.tums.ac.ir>
- Singh, M., & Bhattacharjee, A. (2019). A study to measure job satisfaction among academicians using Herzberg’s theory in the context of northeast India. *Global Business Review, 21*(1), 197-218. <https://doi.org/10.1177/0972150918816413>
- Slimane, N. S. B. (2017). Motivation and job satisfaction of pharmacists in four hospitals

in Saudi Arabia. *Journal of Health Management*, 19(1), 39.

<https://www.iihmr.org>

Somers, M. J. (2017). Strategies for improving measurement models for secondary data in public administration research: Illustrations from the Federal Employee Viewpoint Survey. *Public Administration Review*, 78(2), 228–239.

<https://doi.org/10.1111/puar.12805>

Theofanidis, D., & Fountouki, A. (2018). Limitations and delimitations in the research process. *Perioperative Nursing*, 7(3), 155-163. doi:/10.5281/zenodo.2552021

Turner, T. L., Balmer, D. F., & Coverdale, J. H. (2013). Methodologies and study designs relevant to medical education research. *International Review of Psychiatry*, 25(3), 301-310. <https://doi.org/10.3109/09540261.2013.790310>

Valizadeh, L., Zamanzadeh, V., Habibzadeh, H., Alilu, L., Gillespie, M., & Shakibi, A. (2018). Threats to nurses' dignity and intent to leave the profession. *Nursing Ethics*, 25(4), 520-531. <https://doi.org/10.1177/0969733016654318>

Vanderschuere, M., & Birdsall, C. (2019). Can diversity management improve job satisfaction for military veterans in federal government? *American Review of Public Administration*, 49(1), 116. <https://doi.org/10.1177/0275074018783005>

Vanderschuere, M. F. (2017). Continued service? Understanding military veteran turnover intention among federal employees. *Dissertation Abstracts International: Section A. Humanities and Social Sciences*, 77(10), (UMI No. AAI10113169)

- Van Loon, N. M., Heerema, M., Weggemans, M., & Noordegraaf, M. (2018). Speaking up and activism among frontline employees: How professional coping influences work engagement and intent to leave among teachers. *American Review of Public Administration*, 48(4), 318-328. <https://doi.org/10.1177/0275074016682313>
- Vevoda, J., Vevodova, S., Bubenikova, S., & Ivanova, K. (2016). Data mining techniques – decision tree: New view on nurses' intention to leave. *Central European Journal of Nursing & Midwifery*, 7(4), 518-526. <https://doi-org/10.15452/CEJNM.2016.07.00>
- Vinerean, A. (2015). Loyal employees. A key factor in the success of a company. *Expert Journal of Marketing*, 3(2), 73-78. <https://www.semanticscholar.org/paper/Loyal-Employees.-A-Key-Factor-in-the-Success-of-Vinerean/99649674e8dbaec5a020e36cf35627741166e17f>
- Volkert, D., Candela, L., & Bernacki, M. (2018). Student motivation, stressors, and intent to leave nursing doctoral study: A national study using path analysis. *Nurse Education Today*, 61, 210-215. <https://doi-org/10.1016/j.nedt.2017.11.033>
- Vroom, V. H. (1964). *Work and motivation*. John Wiley & Sons.
- Wang, F., Pollock, K., & Hauseman, C. (2018). School principals' job satisfaction: The effects of work intensification. *Canadian Journal of Education Administration and Policy*, 185, 73-90. <https://www.cje-rce.ca>
- Wang, T. K., & Brower, R. (2019). Job satisfaction among federal employees: The role of employee interaction with work environment. *Public Personnel Management*, 48(1), 3-26. <https://doi.org/10.1177/0091026018782999>

- Ward, B. (2019). The impact of personality on job satisfaction: A study of bank employees in the southeastern US. *IUP Journal of Organizational Behavior*, 18(2), 60-79. <https://www.iupindia.in>
- Weaver, T. L. (2015). Intent to exit: Why do US federal employees leave? *International Journal of Public Administration*, 38(6), 442-452. <https://doi.org/10.1080/01900692.2014.949739>
- Winters, N. (2019). The relationship between personality characteristics, tenure, and intent to leave among emergency nurses. *Journal of Emergency Nursing*, 45(3), 265-272. <https://doi.org/10.1016/j.jen.2018.08.005>
- Woodworth, J. A. (2016). Predictive factors impacting intent-to-stay teaching for associate degree adjunct clinical nurse faculty. *Teaching & Learning in Nursing*, 11(4), 147-151. <https://doi.org/10.1016/j.teln.2016.06.006>
- Yeager, V. A., Balio, C. P., Kronstadt, J., & Beitsch, L. M. (2019). The relationship between health department accreditation and workforce satisfaction, retention, and training needs. *Journal of Public Health Management and Practice*, 25(2), 113. <https://doi-org/10.1097/PHH.0000000000000920>
- Yurtseven, N. (2020). Teacher emotion questionnaire: A Turkish adaptation, validity, and reliability study = Öğretmen duygu anketi: Türkçeye uyarlama, geçerlik ve güvenirlik çalışması. *Pegem Journal of Education and Instruction*, 10(1), 251-282. <https://doi.org/10.14527/pegegog.2020.009>
- Zaheri, R., & Moosavi, S. J. (2015). Effective factors on job motivation and its

relationship to social capital based on Herzberg model. *Advances in Environmental Biology*, 9(2), 204. <http://www.oaji.net/journal-detail.html?number=471>

Zakharov, A., Tshenko, G., & Carnoy, M. (2016). Do “better” teachers and classroom resources improve student achievement? A causal comparative approach in Kenya, South Africa, and Swaziland. *International Journal of Educational Development*, 50, 108–124. <https://doi.org/10.1016/j.ijedudev.2016.07.001>

Zhang, L., Fan, C., Deng, Y., Lam, C. F., Hu, E., & Wang, L. (2019). Exploring the interpersonal determinants of job embeddedness and voluntary turnover: A conservation of resources perspective. *Human Resource Management Journal*, 29(3), 413-432. <https://doi.org/10.1111/1748-8583.12235>

Zhong, B., Wang, X., & Yang, F. (2020). More than an apple; better lunch enhances bus drivers’ work performance and well-being. *Intentional Journal of Occupational Safety and Ergonomics: JOSE*, 1, 1-10. <https://doi.org/10.1080/10803548.2019.1662980>

Ziar, S., Momtazmanesh, N., & Ahmadi, S. (2017). Effective factors in job motivation of faculty members of Shaheed Beheshti University of Medical Sciences based on Herzberg’s two-factor theory of motivation in 1974, *Journal of Medical Education Development*, 23(9), 20-30. <http://www.zums.ac.ir>

Zyphur, M., & Pierides, D. (2017). Is quantitative research ethical? Tools for ethically practicing, evaluating, and using quantitative research. *Journal of Business Ethics*, 143(1), 1-16. <https://doi.org/10.1007/s10551-017-3549-8>

## Appendix A: FEVS Question Alignment to Study Variables

## My Work Experience (Predictor Variable Set)

Q1. I am given a real opportunity to  
improve my skills in my organization. \_

Employee perceptions of work experience  
(intrinsic)

Q2. I feel encouraged to come up with new  
and better ways of doing things. \_

Employee perceptions of work experience  
(intrinsic)

Q3. My work gives me a feeling of personal  
accomplishment. \_

Employee perceptions of work experience  
(intrinsic)

Q4. I know what is expected of me on the  
job. \_

Employee perceptions of work experience  
(intrinsic)

Q5. My workload is reasonable. \_ Employee perceptions of work experience  
(intrinsic)

Q6. My talents are used well in the

workplace. \_

Employee perceptions of work experience

(intrinsic)

Q7. I know how my work relates to the

agency's goals. \_

Employee perceptions of work experience

(intrinsic)

Q8. I can disclose a suspected violation of

any law, rule, or regulation without fear

of reprisal. \_

Employee perceptions of work experience

(intrinsic)

My Supervisor (Predictor Variable Set)

Q19. My supervisor supports my need to

balance work and other life issues. \_

Employee perception of supervisors (extrinsic)

Q20. My supervisor is committed to a

workforce representative of all

segments of society. \_

Employee perception of supervisors (extrinsic)

Q21. Supervisors in my work unit support

employee development. \_

Employee perception of supervisors (extrinsic)

Q22. My supervisor listens to what I have to  
say. \_

Employee perception of supervisors (extrinsic)

Q23. My supervisor treats me with respect. \_ Employee perception of supervisors  
(extrinsic)

Q24. I have trust and confidence in my  
supervisor. \_

Employee perception of supervisors (extrinsic)

Q25. Overall, how good a job do you feel is  
being done by your immediate  
supervisor?

Employee perception of supervisors (extrinsic)

Employee Intent to leave (Criterion Dichotomous Variable)

DLEAVINGB. Are you considering leaving your organization within the next  
year? (Dichotomous variable)