

2022

The Relationship Between Employee Engagement, Job Satisfaction, And Employee Performance in The Federal Government

Alexis L. Shellow
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Walden University

College of Management and Technology

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Alexis Shellow

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Walden University
2022

Abstract

The Relationship Between Employee Engagement, Job Satisfaction, And Employee Performance
in The Federal Government

by

Alexis Shellow

MBA, Aurora University, 2018

BS, Westminster College, 2015

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Business Administration Secondary Data Analysis Portfolio

Walden University

August 2022

Abstract

Leaders in the U.S. Federal Government face performance challenges due to disengaged employees and employees with low satisfaction. Leaders within the federal government need to understand the relationship between employee engagement, job satisfaction, and employee performance, as decreased employee performance can result in decreased productivity, increased turnover, and have negative financial implications. Grounded in Herzberg's two-factor theory and Kahn's engagement theory, the purpose of this quantitative correlational ex post facto study was to examine the relationship between employee engagement, job satisfaction, and employee performance within the federal government. Data from the 2019 Federal Employment Viewpoint Survey ($n = 100$) were analyzed using multiple regression analysis. The multiple linear regression analysis results indicated the model was able to significantly predict performance $F(2,97) = 43.836, p < .001, R^2 = .475$. Employee engagement ($t = 3.594, p < .001, \beta = .504$) was the only statistically significant predictor. A key recommendation for leaders in the federal government to engage federal employees is to recognize employee achievements, create a work environment promoting psychological safety, provide employees with adequate resources, and have well-defined roles and responsibilities for employees while allowing them to exercise autonomy in their work processes. The implications for positive social change include the potential for cost savings, helping leaders in the federal government assess areas of improvement, creating a more productive environment for improved employee performance, and increasing employee retention and job satisfaction in the workforce.

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Dedication

I want to dedicate my work to my family and friends who have supported me along this journey; I love and appreciate all of you and would not have been able to do this without you. To my mother, thank you for instilling in me the importance of hard work, perseverance, and dedication. To my father, thank you for all the love and support you have shown me through my journey. To my Gantzy, for showing me what it means to be strong and always welcoming me with the warmest love. To all my siblings, who have been constant sources of love and support, and continue to inspire me every day, thank you and I love you. To my Aunt Michelle, I don't know where I would be without your constant love, grace, and motivation. To my Uncle Myke, for always believing in me and providing everything I needed whenever I needed it. To my Uncle Jay for showing me the importance of following my passions and never giving up on myself. To my Uncle Corey for always moving mountains to help me become successful. I would not be where I am today without the love and support I have received from all of you.

Lastly, I would like to dedicate this work to the neurodivergent population. I have struggled a lot with understanding my abilities and would often limit myself out of fear of failure and societal perceptions. I hope it serves as a reminder and as motivation that we can do extraordinary things, including everything that society has told us we couldn't.

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Table of Contents

List of Tables	iv
List of Figures	v
Section 1: Background and Content	1
Historical Background	1
Organizational Context	3
Problem Statement	4
Purpose Statement.....	5
Target Audience.....	6
Research Question	6
Data Collection and Analysis.....	7
Significance.....	7
Theoretical Framework.....	9
Representative Literature Review.....	11
Theoretical Framework.....	13
Herzberg’s Two Factor Theory.....	14
Kahn’s Engagement Theory	18
Alternate Theories.....	33
Problem.....	40
Employee Engagement	42
Job Satisfaction	49
Employee Performance.....	61

Transition	64
Section 2: Project Design and Process.....	67
Method and Design.....	67
Method.....	68
Design.....	69
Ethics	71
Transition and Summary.....	71
Section 3: The Deliverable.....	73
The Deliverable.....	73
Executive Summary	73
Goals and Objectives	75
Overview of Findings	75
Recommendations.....	77
Presentation of Quantitative Data Analysis	78
Descriptive Statistics.....	78
Statistical Tests of Assumptions	81
Inferential Statistical Analysis	88
Results and Conclusions of Data Analysis	100
Recommendations for Action	117
Communication Plan.....	120
Social Change Impact	121
Skills and Competencies.....	124

References.....125

Appendix A: Secondary Dataset Sources156

Appendix B: Employee Engagement Index, Global Satisfaction Index, Employee
Performance157

List of Tables

Table 1. Descriptive Statistics for Study Variables	81
Table 2. Gender, Minority, Education, Supervisory Status, and Years in Service	81
Table 3. Multiple Model Regression Summary	82
Table 4. Tests for Normality	87
Table 5. Multiple Regression Model Summary	91
Table 6. ANOVA Summary	92
Table 7. Coefficients	92
Table 8. Correlations of Study Variables While Controlling for Employee Engagement	94
Table 9. Analysis of Response Frequencies on Employee Engagement	97
Table 10. Analysis of Response Frequencies for Job Satisfaction	99
Table 11. Analysis of Response Frequencies for Employee Performance	100
Table B1. Employee Engagement Index	157
Table B2. Global Satisfaction Index	157
Table B3. Employee Performance Driver	158

List of Figures

Figure 1. Theoretical Framework	11
Figure 2. Power Prior Analysis.....	80
Figure 3. Linearity Between Study Variables.....	83
Figure 4. Linearity between Employee Performance and Job Satisfaction	84
Figure 5. Linearity Between Employee Performance and Employee Engagement.....	85
Figure 6. Normal Q-Q Plot of Studentized Residuals.....	87
Figure 7. Employee Engagement Influencers.....	103
Figure 8. Mediator Variable.....	106
Figure 9. Motivation and Hygiene Factors	107
Figure 10. I Feel Encouraged to Come up with New Ways of Doing Things.....	110
Figure 11. When Needed I am Willing to Put in the Extra Effort to get a Job Done	111
Figure 12. I Have Trust and Confidence in My Supervisor.....	112
Figure 13. Are You Considering Leaving your Organization and Why?.....	113
Figure 14. Normal Q-Q Plot of Studentized Residual	115
Figure 15. Q-Q Normality Plot of Employee Engagement.....	115
Figure 16. Q-Q Normality Plot of Employee Satisfaction.....	116
Figure 17. Q-Q Normality Plot of Employee Performance	116

Section 1: Background and Content

Historical Background

Employee performance is critical in maximizing organizational effectiveness (Gruman & Saks, 2011). Highly performing employees are more likely to develop innovative ideas to help the organization operate more efficiently (Copeland, 2020). To improve employee performance, the U.S. Office of Personnel Management (OPM) created a human capital framework to promote performance culture and engage, develop, and inspire a diverse, high-performing workforce by designing, implementing, and maintaining effective performance management strategies, practices, and activities that support mission objectives (OPM, 2016). Employee engagement and job satisfaction influence employee performance (Osborne & Hammoud, 2017), and employee engagement is considered essential to business success within many federal agencies (Lavigna, 2019).

The OPM has partnered with leaders across government agencies to support data-driven changes to improve employee engagement, leading to organizational success. The Federal Employee Viewpoint Survey (FEVS) provides vital data regarding the employee work experience (Shih, 2020), measuring employee engagement, and assessing engagement drivers (OPM, 2016). Each year, OPM administers the FEVS to measure employees' perceptions of whether and to what extent successful organizations' conditions and characteristics are present in their agencies. OPM conducts the FEVS to identify areas of improvement in the federal government.

Additionally, the OPM created an Employee Engagement Index (EEI) in 2010 to assess the factors that impact employee engagement and identify engagement potential within organizations (OPM, 2016). Items 3, 4, 6, 11, 12, 47–49, 51–54, 56, 60, and 61 make up the FEVS EEI. From 2010 to 2019, the average score among federal employees on the EEI increased from 66% to 68% (Hameduddin & Fernandez, 2019; OPM, 2019), with the lowest average score of 63% occurring in 2014 (Hameduddin & Fernandez, 2019; OPM, 2019). Organizational leaders can use this information to determine whether their engagement strategies need improvement (OPM, 2016).

In 2015, OPM introduced the Employee Engagement Initiative to address employee engagement issues within federal agencies (OPM, 2015). The initiative emphasizes creating organizational conditions that foster employee engagement (OPM, 2016), expecting increased engagement to improve performance. (Kamensky, 2020). Research suggests that high levels of employee engagement augment employees' job performance (Christian et al., 2011; Leiter & Bakker, 2010; Partnership for Public Service, 2019). As the factors that influence employee engagement increase, employee and organizational performance increases resulting in a direct positive relationship between engagement and performance (Ahmed et al., 2016; Arifin et al., 2019). Employee engagement levels can impact the overall health and performance of an organization (McCarthy et al., 2020). Engaged employees contributes to lower employee turnover (Bhatt & Sharma, 2019). In contrast, lack of employee engagement (McCarthy et al., 2020) relates to low job satisfaction (Barden, 2017; Jin et al., 2016; McCarthy et

al., 2020), and low employee engagement and low job satisfaction can negatively influence job performance (Osborne & Hammoud, 2017).

Using the FEVS to understand how employees feel about their job can help human resource managers identify factors that increase employee engagement and job satisfaction and how these variables relate to employee performance. The survey is available to be taken online for 6 weeks. FEVS representatives recommend that individual agencies compare their agencies with the overall results to understand better how their employees feel about their jobs (OPM, 2018b). Employers need to have a strong understanding of how the employees feel about their job, which can help human resource managers and leaders determine how to help their employees stay engaged (OPM, 2018b). Federal agencies can use this information to compare their results against the total federal government. Combining the assessment of knowledge, skills, and aptitudes required for the task with the organizational strategy can predict job satisfaction and job performance (Paulo da Silva & Shinyashiki, 2014). An increase in an engaged and satisfied workforce can increase job performance, reduce turnover (Byrne et al., 2017; Paulo da Silva & Shinyashiki, 2014), and save organizations billions of dollars annually (Barden, 2017).

Organizational Context

Each agency within the U.S. Federal Government has its own mission and vision. However, OPM has determined that focusing on performance is essential to improving the organization and meeting each agency's mission and vision. Several governmentwide initiatives have been implemented to assist agencies in reexamining and enhancing their

performance measures. The performance initiatives require agencies to set goals and standards to align employee performance with agency goals (OPM, n.d.).

The FEVS is an annual assessment that OPM administers to evaluate employees' perceptions of agency conditions that support success. The FEVS was designed to provide agencies with employee feedback on factors that critically impact organizational performance, such as perception of leadership, effectiveness, employee engagement, and job satisfaction (Kamensky, 2020; Lappin, 2021; OPM, 2016). Some leaders at federal agencies would create action plans to improve low-scoring items; however, this strategy did not prove to improve employee satisfaction or engagement (Lappin, 2021; Metzenbaum, 2019; OPM, n.d.). Furthermore, leaders in the federal government did not understand the relationship between employee engagement, job satisfaction, and employee performance (Lappin, 2021; Metzenbaum, 2019). This study explored employee engagement, job satisfaction, and employee performance. Understanding the relationship between these variables may help leaders create more efficient strategic plans to improve employee performance.

Problem Statement

Low-performing employees reduce the team's motivation and performance by approximately 40% (Lee & Rhee, 2019), contributing to approximately \$483 billion to \$605 billion in lost productivity each year in the United States (State of the American Workplace, 2020). In addition, only 21% of employees in the United States feel that their leadership manages their performance in a way that motivates them to do outstanding work, and only 14% of employees are inspired to improve their performance (State of the

American Workplace, 2020). Research has shown that organizations with higher employee engagement and job satisfaction demonstrate better performance (Bhatt & Sharma, 2019; Budirianti et al., 2020; Cankir & Arikan, 2019; Concepcion, 2020; Gupta & Sharma, 2016; Popli & Rizvi, 2015). The general business problem is a lack of employee engagement, and low job satisfaction can result in low employee performance (Osborne & Hammoud, 2017). The specific business problem that this study will address is that leaders within the federal government do not understand the relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. The 2019 FEVS is the dataset that was used for this study to examine whether a relationship exists between employee engagement, job satisfaction, and employee performance among employees within the federal government.

Purpose Statement

The purpose of this quantitative correlational ex post facto study was to examine the relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. I conducted secondary data analysis using data obtained from the 2019 FEVS. The independent variables identified in the FEVS were employee engagement, measured by the EEI in the 2019 FEVS, and job satisfaction, measured by the Global Satisfaction Index (GSI), Items 40 and 69–71. The dependent variable was employee performance, measured by the Performance Driver in the 2019 FEVS, consisting of Items 15,16, and 19. Previous researchers have tested and confirmed the validity of the composite variable or close variations to measure both employee performance and organizational performance (Choi

& Rainey, 2020; Lee, 2018; Metzenbaum, 2019; Pitts, 2009; Somers, 2018). The implications for social change include contributing to leadership practices by identifying job satisfaction and employee engagement influencers and determining how performance is related to those factors. This information can help leaders in the federal government create a more productive environment for improved employee and business performance and maximize resources (Hejjas et al., 2019), increasing employee retention and job satisfaction (Bhatt & Sharma, 2019) in the workforce.

Target Audience

The key stakeholders in this portfolio were agencies within the federal government, employees within the federal government, U.S. citizens, and leaders in the federal government focusing on improving employee engagement and job satisfaction. Determining the relationship between employee engagement, job satisfaction, and employee performance can help leaders implement strategies to improve employee performance. Understanding the relationship between these variables can also reduce costs, increase retention, and enhance job satisfaction. Furthermore, government business operations are primarily funded by taxpayer dollars, making U.S. citizens essential stakeholders. Maximizing the use of resources can be a positive result for stakeholders as they are ensured that their tax dollars are being utilized efficiently and responsibly.

Research Question

Does a significant relationship exist between employee engagement, job satisfaction, and employee performance among employees within the federal government?

*H*₀: There is no statistically significant relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government.

*H*₁: There is a statistically significant relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government.

Data Collection and Analysis

I collected data using an archival data collection technique. I extracted data from the OPM FEVS 2019 Public Release Data File provided on the OPM government website. I conducted a multiple regression analysis to determine a relationship between this study's independent and dependent variables. Multiple linear regression examines the relationship between multiple independent variables and a dependent variable. The degree to which the dependent variable, employee performance, is explained by the independent variables job satisfaction and employee engagement was the focus of this study.

Significance

The federal government is making a continuous effort to increase employee performance (Pecino et al., 2019). The findings of this quantitative multiple regression study can provide value to leaders in the federal government. It also provides a model for understanding the degree to which employee engagement and job satisfaction relate to employee performance. Employee engagement and job satisfaction are vital indicators for predicting employee performance. Understanding this relationship may assist leaders

within the federal government indicate productivity and possibly turnover intent.

Furthermore, leaders may also determine what factors influence employee performance and incorporate those factors to create and implement more effective practices and strategies to maintain employee engagement to increase employee performance (OPM, 2016). By implementing successful strategies, leaders within the federal government mitigate risks of low productivity, decreased work quality, rising costs, and increased turnover.

The implications for positive social change include the potential to increase employee performance and productivity (Osborne & Hammoud, 2017), maximize the use of resources (Hejjas et al., 2019), and increase employee retention and job satisfaction (Bhatt & Sharma, 2019), and save the organization costs (Osborne & Hammoud, 2017). Increasing employee engagement can lead to increased job satisfaction and performance and lower organizational turnover rates (Paulo da Silva & Shinyashiki, 2014). Additionally, increased job satisfaction can positively influence creating more innovative strategies to complete tasks and contribute to the organization's cost savings due to a more efficient allocation of resources. Increased employee engagement increases job satisfaction and job performance (Paulo da Silva & Shinyashiki, 2014) and saves organizations billions of dollars annually (Barden, 2017). Thus, this study's findings could further inform the field by examining the degree to which employee engagement and job satisfaction relate to employee performance.

Theoretical Framework

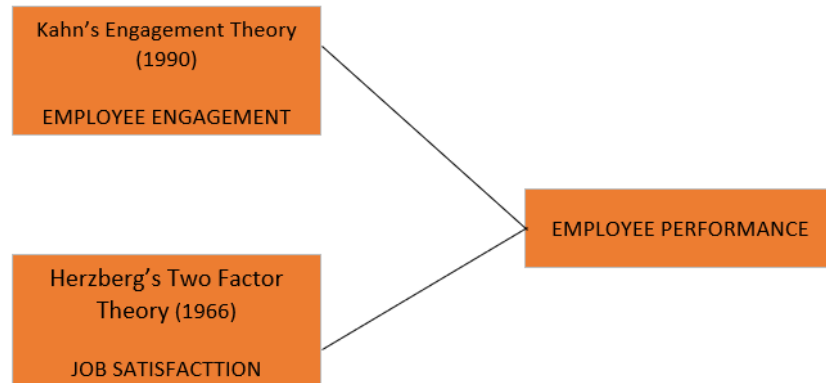
I used two theories as the framework for my study: Herzberg's two-factor theory, often referred to as Herzberg's dual-factor theory (Alshmemri et al., 2017), to address the relationship between job satisfaction and job performance, and Kahn's employee engagement theory to address the relationship between employee engagement and job performance. Herzberg's two-factor theory, also known as the motivation-hygiene theory and Herzberg's dual-factor theory (Herzberg, 1959), is a motivation theory influenced by Maslow's hierarchy of needs (Jones, 2011). Herzberg's two-factor theory identifies two sets of factors: hygiene and motivation factors that affect job satisfaction. Hygiene factors include company policies, coworker relationships, salaries, and supervision (Herzberg, 1966). Herzberg's theory proposes that motivation factors result in satisfaction, and hygiene factors prevent dissatisfaction (Hur, 2017). Motivation factors include recognition, achievement, advancement, the work itself, and growth (Herzberg, 1966). A decrease in hygiene factors can cause employees to work less, whereas an increase in motivating factors can encourage employees to work harder. The factors presented by Herzberg influence performance by assessing motivational and hygiene factors.

The second theoretical framework I applied to this study is Kahn's employee engagement theory (Kahn, 1990). Kahn's theory measures employee engagement through employees' level of commitment to their work roles and how organizations influence engagement to the extent that employees engross themselves in their performance to reach organizational objectives (Gupta & Sharma, 2016; Kahn, 1990; Vaijayanthi et al., 2011). The starting point for Kahn's (1990) engagement theory was the work of Goffman

(1961), which suggests that employee levels of attachment to their roles vary, and employees can demonstrate various levels of attachment and detachment with each moment. The theory presented by Goffman was attributed to fleeting encounters and not a consistent organizational experience (Kahn, 1990). Kahn argued that Goffman's work did not fit organizational life and focused on face-to-face interactions (Gruman & Saks, 2011; Kular et al., 2008; Kahn, 1990). Kahn classifies this as self-in-role, meaning that when employees are engaged, they keep themselves within the role they are performing (Gruman & Saks, 2011; Kahn, 1990).

The employee engagement theory states that meaningfulness, safety, and availability, influence employee engagement levels (Kahn, 1990). When employees are involved and invested in their jobs, employee engagement increases. Alternatively, when employees withdraw from their duties, engagement decreases. Employees' perceptions of their performance's meaningfulness, availability of resources to successfully complete their jobs, and perception of employee safety influence employee engagement.

The aim of this study was to examine the relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. As applied to this study, the Herzberg two-step theory holds that I would expect the independent variables to influence employee performance. The FEVS (2019) identifies hygiene and motivation factors as influencers of employee performance and engagement. Figure 1 depicts how each independent variable relates to the dependent variable.

Figure 1*Theoretical Framework*

Herzberg's two-factor theory explains how job satisfaction relates to and explains employee performance. Kahn's employee engagement theory measures how employee engagement influences employee and organizational performance (Kahn, 1990), which I used to examine how employee engagement relates to and explains employee performance (Albrecht et al., 2015).

Representative Literature Review

This literature review focuses on employee engagement and job satisfaction and the relationship each variable has on employee performance. This literature review contains comprehensive research from multiple business functions and applications to describe a quantitative correlational study within the federal government. This literature review was conducted to examine the relationship between the study's independent variables, employee engagement and job satisfaction, and the dependent variable, employee performance amongst employees in the federal government.

I based the literature review on Herzberg's (1959) two-factor theory and Kahn's (1990) engagement theory. The componential theory of creativity and social exchange theory is also discussed in this literature review to provide further insight on the expounding of the theories as time progressed. Herzberg's two-factor theory most adequately addresses job satisfaction's impact on employee performance, and Kahn's engagement theory was best suited to address the relationship between employee engagement and performance.

The literature reviewed for this study consisted of items published since 2017 with a few exceptions from beyond that time, as was necessary for a complete theoretical foundation. The sources included in this section provide background, relevant theories, contextual support, supporting data, and the impact on performance, productivity, and profitability. I used Walden University's library databases to research the literature, providing a great deal of information on employee engagement and job satisfaction. For research purposes, search terms consistent with this study were used, such as *employee engagement, job satisfaction, employee performance, organizational performance, Federal Employment Viewpoint survey, resources and satisfaction, employee recognition, employee dissatisfaction, disengaged employees, Maslow's hierarchal theory, job resources demand theory, self-determination theory, employee productivity, and burnout.*

The purpose of the literature review was to identify and ascertain additional information relative to the main factors of this study. An analysis of previously written studies that focus on employee engagement, job satisfaction, and employee performance are included—the foundation of the theoretical framework aided in completing this

section. Walden Library's extensive databases accumulated peer-reviewed articles and publications, specifically ABI/Inform Complete, Business Source Complete, and EBSCOhost. Researching using the dissertations at Walden selection, mining other authors' reference sections, and keyword searching helped complete this review. I exhausted the searches by using variations of the original terms to benefit from the different tenses of the words by gaining additional resources such as *satisfied*, *satisfaction*, *satisfy*, *engage*, *engaged*, *engagement*, *engaging*, *motivate*, *motivation*, *motivator*, *motivated*, and *motivating*. I also utilized Google Scholar to identify relevant sources I accessed using my Walden Library credentials.

Nine major themes, based on Herzberg et al.'s (1959) motivation-hygiene theory, are included in this review. The themes included (a) achievement, (b) recognition, (c) work itself, (d) responsibility, (e) advancement, (f) working conditions, (g) company policies, (h) relations with supervisors, subordinates, or coworkers, and (i) pay. Three major themes based on Kahn's (1990) engagement theory are also included in this literature review: (a) meaningfulness, (b) safety, and (c) availability. Applying these factors to the variables included in the study and alternate theories is also discussed in the literature review.

Theoretical Framework

A theoretical framework helps structure and organize a study (Dziak, 2020). The theoretical frameworks used for this study were Herzberg's two factor theory and Kahn's employee and engagement theory. This section of the literature provides a critical analysis and complete synthesis of the applicability, basis, various perspectives,

comparative research, and alternative theories of the frameworks used to structure this study.

Herzberg's Two Factor Theory

Herzberg conducted a study in Pittsburgh, Pennsylvania using more than 200 engineers and accountants working in approximately nine different factories to explore the factors contributing to employee job satisfaction and motivation (Herzberg et al., 1959). Based in this research, Herzberg concluded that the factors affecting job satisfaction consist of two categories: motivation factors and hygiene factors. Motivation factors, or satisfiers, are considered intrinsic factors associated with the need for growth or self-actualization (Herzberg, 1966). The factors that make up positive attitudes for employee engagement and job satisfaction include achievement, recognition, the work itself, responsibility, advancement, and the possibility for growth (Herzberg, 1966).

Hygiene factors, also known as dissatisfiers, are considered extrinsic factors. The factors that comprise the negative job attitudes attributed to disengagement and dissatisfaction include company policies, coworker relationships, salaries, working conditions, and supervision (Herzberg et al., 1959). Low hygiene factors in an organization can lead to higher employee dissatisfaction, which can cause employees to work less. Alternatively, increasing motivating factors can encourage employees to work harder by influencing their attitudes (Herzberg, 1966). Essentially, motivation factors work to improve job satisfaction, and hygiene factors work to reduce job dissatisfaction. But satisfaction and dissatisfaction are not on the same continuum, as each is affected by different factors and is independent of one another.

Although hygiene factors and motivator factors influence employee satisfaction, they do so differently. Lack of hygiene factors leads to dissatisfaction from the job's extrinsic conditions, making the employee unhappy with the job conditions (Herzberg, 1968). The employee can be disgruntled with the job conditions but still enjoy the work. However, satisfying hygiene requirements is insufficient to improve an organization's productivity (Herzberg, 1987). Organization leaders must maintain motivation factors to ensure employee satisfaction. Lack of hygiene and motivator factors can increase dissatisfaction; however, motivator factors do not increase dissatisfaction but can increase and decrease satisfaction.

It is assumed that performance results are more likely associated with motivator and hygiene factors to maintain performance levels. Those with higher motivator factors and more satisfaction are more likely to overperform and go above and beyond their job duties (Azevedo et al., 2020; Barden, 2017). On the other hand, those with higher hygiene factors are less dissatisfied with their job and will likely perform at a basic maintenance level. Although still satisfactory, these employees develop fewer innovative strategies and tend to generate less output (Bevins, 2018). Furthermore, dissatisfaction psychologically leads employees to withdraw from business operations (Herzberg, 1959). This reasoning is why the Herzberg theory is considered a motivation theory, as Herzberg found a statistical relationship between performance effects and satisfaction (Bevins, 2018; Herzberg et al., 1959; Herzberg et al., 1979). To motivate employees to achieve desired outcomes, business leaders must understand what factors drive their employees (Baumeister, 2016; Copeland, 2020; Damiji et al., 2015).

Research Relative to Herzberg's Two-Factor Theory

Herzberg's two-factor theory is the basis for many research studies, and many researchers have expanded on the theory. For example, Adil and Hamid (2019) used Herzberg's two factor theory to determine if there is a direct relationship between leader expectations of creativity and performance and if intrinsic motivators affect the relationship between leader expectations of creativity and performance. The componential theory of creativity describes three components of employee creativity: expertise, creative thinking, and intrinsic motivation (Adil & Hamid, 2019). This componential theory of creativity was expanded in 2016 (Amabile & Pratt, 2016) to include boundary conditions such as work orientation, meaningful work, and effect. These conditions affect the individual, the team, and organizational creativity and innovation (Adil & Hamid, 2019; Amabile & Pratt, 2016).

Empirical evidence suggests that intrinsic motivation is a mediator between different variables and creative performance (Adil & Hamid, 2019; Hannam & Narayan, 2015; Hur et al., 2016; Muñoz-Pascual, & Galende, 2017). Expectations from leadership to perform creatively could serve as a motivator for an employee; however, if an employee feels that they cannot perform creatively or innovatively, they are more likely not to perform may become more dissatisfied (Adil & Hamid, 2019). If employees felt that policy or their supervisor allowed for creativity, they would be less dissatisfied and willing to increase their output (Adil & Hamid, 2019; PPS, 2019). Furthermore, if the employee is motivated, they are more likely to grow, develop, and improve their performance (Adil & Hamid, 2019; State of the American Workplace, 2020). It is

important to note that although hygiene factors and motivation factors influence job satisfaction and dissatisfaction, the impact of each component of the factors varies between employees (Thibodeaux et al., 2015).

Herzberg's theory is also used to evaluate job satisfaction. Shaikh et al. (2019) conducted a study to determine the impact of job dissatisfaction on extrinsic factors and employee performance in the textile industry. The results showed that performance increased when leaders focused on employees' satisfaction and implemented relevant hygiene factors to decrease dissatisfaction. However, though hygiene factors decrease dissatisfaction, they have no impact on satisfaction (Shaikh et al., 2019). Regardless, to maintain positive attitudes in the workplace, leaders should focus on improving motivator factors such as recognition, the possibility for growth, and advancement. These factors help improve performance and increase employee engagement and job satisfaction (Amiri et al., 2017; Calecas, 2019; Herzberg, 1959). For example, employee feedback can help employees to understand their roles better. Additionally, feedback can inform employees about their performance and allows employers to recognize employees' accomplishments (Aye, 2019; Herzberg, 1959; Rahman & Iqbal, 2013). These strategies will help leaders increase morale, create happier and more satisfied employees, and increase employee performance, increasing overall productivity.

Herzberg's theory has since been expanded and still serves as the basis for many other researchers. The theory has been applied in various industries, including human resources, retail, and academia. The theory still receives criticism for lacking substantial influence in explaining motivation. Other researchers have also argued that one of the

hygiene factors was misclassified and is a motivator, with only work itself having a significant impact on job satisfaction (Onen & Maicibi, 2004; Smerek & Peterson, 2007; Yousaf, 2020). But research has also shown that each motivator factor (e.g, relationship with supervisors, work itself) positively correlates with job satisfaction (Yousaf, 2020). The amount of recognition an employee gets also affects satisfaction. Employees who receive more recognition are more satisfied and find their jobs more challenging and rewarding than those who receive less recognition. Recognition is essential in motivating employees, contributing to increased satisfaction and performance (Lehtinen, 2018). Literature often discusses the performance of those being recognized but not that of those not receiving recognition. Those who do receive recognition increased their performance to maintain or continue to receive recognition (Yusaf, 2020). Thus, recognition increases employee motivation and performance (Bradler et al., 2016; Gupta & Tayal, 2013; Herzberg, 1959; Lehtinen, 2018).

Kahn's Engagement Theory

The degree to which individuals immerse themselves in their work role relates to their level of personal engagement or disengagement. Kahn's engagement theory premise is that people use varying degrees of themselves, physically, cognitively, and emotionally in the workplace (Ali et al., 2019; Gupta & Sharma, 2016; Kahn, 1990). When Kahn began developing this theory, existing research primarily focused on engagement driven by job involvement, organizational commitment, and self-estrangement. Kahn (1990) conducted a study to understand the conditions contributing to employee engagement in the workplace. Kahn interviewed 32 employees to explore how certain job variables

affected employee engagement and analyzed the data using Grounded Theory to articulate the complexity of influences on engagement levels in particular performance moments (Kahn,1990). Kahn completed two qualitative studies, including counselors from a summer camp and members of an architecture firm. The purpose of this study was to explore conditions that cause people to engage, disengage, withdraw, or defend themselves. Kahn described these actions as self-in-role processes. Essentially, positions that allow individuals to exercise their preferred skills and talents and have their work be an expression of themselves result in employees bringing their energy in all three areas of physical, cognitive, and emotional aspects (Albrecht et al., 2015; Arleth, 2019; Kahn, 1990)

An employee can be engaged psychologically in two dimensions: emotionally and cognitively. Those who are emotionally engaged typically have good relationships with their supervisors and peers. Cognitively engaged employees are aware of their mission and role in their work environment (Barden, 2017; Kahn, 1990; Rothbard, 2001). The effort an employee is willing to exert to meet their goals is the measure of the physical aspect of employee engagement. Employees can experience engagement in any of these dimensions at any time. The employee engagement theory states that meaningfulness, safety, and availability, influence employee engagement levels (Kahn, 1990).

Employees determine meaningfulness based on their experiences with work elements that create incentives or, in some cases, disincentives. When employees experience meaningfulness, they are more likely to feel valued and worthwhile and give to others and the work itself. Meaningfulness is influenced by task and role

characteristics and overall work interactions (Balkrushna et al., 2018; Risley, 2020; Tong et al., 2019; Tracey et al., 2014). The goals of these tasks and roles should be clear and should allow for autonomy and creativity (Ma et al., 2020). Essentially, employees are looking to have their jobs meet their needs for survival and their psychological needs. Nikolova and Cnossen (2020) found that competence, autonomy, and relatedness explain approximately 60% of the variation in work meaningfulness perception.

On the other hand, factors related to compensation are relatively unimportant (Nikolova & Cnossen, 2020; Terkel, 1997). Employees that have meaning in their work find value in more than just their paycheck. Kahn (1990) defines meaningfulness as a return on investment, and employees are looking for more than just a paycheck. Approximately one in two employees report that their jobs lack meaning and they feel disconnected from their company's mission. Being detached is a sign of personal disengagement.

Employee perspective on meaningfulness can predict absenteeism, skills training, retirement intentions, and employee turnover (Bhatt&Sharma;2019; Byrne et al., 2017; Nikolova & Cnossen, 2020; Paulo da Silva & Shinyashiki, 2014). A 2017 study conducted by BetterUp, Inc. that included 2,285 United States residents revealed that approximately nine of 10 employees would be willing to trade an average of 23% of their lifetime earnings for greater meaning at work (Reece et al., 2018). Additionally, employees who experience higher levels of meaningfulness at work tend to take fewer leave days, work approximately an additional hour per week, and are 69% less likely to leave their jobs within the next six months (Reece et al., 2018). When employees feel

they are receiving a return on investment, they are more likely to offer their resources and perform effectively in their role. Employees with higher engagement are more likely to provide additional time and dedication, share ideas willingly, and utilize creativity to stimulate innovation.

For employees to experience safety in the workplace, they must have a sense of ability to show and employ themselves without fear of negative consequences to their self-image, status, or career. The influencers of safety are interpersonal relationships, group, intergroup dynamics, management style and process, and organizational norms (Kahn, 1990). A safe environment fosters support and trust and allows employees to learn and improve their performance without fearing negative consequences. Increased levels of trust also increase the amount of influence that leaders have. The management style in this environment is supportive and resilient and provides clarity and consistency (Arleth, 2019; Gruman & Saks, 2010; Kahn, 1990; Lee & Huang, 2018). Leaders allow employees to have some control over their work while providing reinforcement.

Employees' autonomy plays a significant role in fueling intrinsic motivation. A lack of sense of safety can result from a manager not allowing an employee to have any control over their work (Probst et al., 2020). An environment that does not promote employee autonomy can make employees feel that their leadership does not trust them, causing anxiety and frustration (Kahn, 1990; Kwon & Park, 2019). An employee must be in an environment where critical thinking is openly exercised to have a sense of psychological safety. Promoting openness in the work environment is also pivotal for

knowledge sharing, a crucial element in an organization's survival (Naujokaitien et al., 2015).

Without the feeling of safety, employees are less likely to contribute their ideas, beliefs, and values (Hyde, 2017; Snell et al., 2015). An environment that does not promote a safe environment can contribute to inconsistency, unpredictability, and a threatening environment that negatively impacts employee engagement. Researchers argue that variables such as a leader's behavior influence motivation and can promote or inhibit voluntary employee behavior (Parker et al., 2010; Qian et al., 2020). Employees' willingness to improve their skills or performance can decrease for fear of negative consequences due to a lack of perceived safety (Wang, 2021). The notion that employees refrain from improving their skills is supported by research conducted by Qian et al. (2020). Qian et al. found that levels of perceived safety impact the psychological availability of employees.

Psychological availability is experienced when employees have physical, emotional, or psychological resources to engage at a particular moment personally (Kahn, 1990) and apply to work and non-work experiences. Physical energy, emotional energy, individual insecurity, and issues in personal life all impact psychological availability. Insecurity impacts an employee's willingness to fully harness themselves in their role and can create anxiety and diminish confidence. When employees are physically and emotionally drained, they are likely to become disengaged, even if only for a moment, decreasing their psychological availability (Ali et al., 2019; Bergdahl; 2020; Cao & Chen, 2019; Kahn, 1990; Kwan & Park, 2019).

Availability is driven by an employee's degree of confidence in their roles.

Organizational awareness of employee morale and training and development can be supported by organizational awareness and the ability to create a work environment that promotes positive social interaction (Bergdahl, 2020; Lee & Huang, 2018). Creating an open environment can help alleviate the negative influencers and positively affect employees' psychological states (Qin, 2020). Organizations have implemented dedicated quiet rooms, Employee Assistance Program (EAP) access, stress retreats, resilience training, and other resources to help employees alleviate tensions and help improve employee mental health. The abovementioned strategies help employees accumulate, manage, and reinforce positive beliefs about their physical, emotional, and cognitive resources and enhance their psychological availability. Having availability can help employees to accomplish extra tasks and requirements. Employees with psychological availability have the physical energy and resources to help others in the organization and cognitive resources to help generate new ideas (Fletcher, 2019; Kahn, 1990; Kultalahti & Viitala, 2014; Nikolova et al., 2020; Smit et al., 2016; Upadyaya & Salmela-Aro, 2020), creating a more efficient work environment (Naujokaitien et al., 2015). A more efficient environment conducive to psychological meaningfulness, availability, and safety may positively influence an employee's workplace engagement level.

When employees are engaged, they are more involved and invested in their jobs and more expressive in the workplace. Alternatively, when employees withdraw from their duties and disconnect and insulate themselves cognitively, physically, and emotionally from their work roles, they become more disengaged (Hyde, 2017; Kahn,

1990). Engagement levels are a critical factor in employees' investment in their work roles. Employees' energy contributes to engagement, and when engagement is present, employees tie themselves to their roles freely without giving up their beliefs and values. However, when employees are disengaged, they create barriers to their self-preservation. It is important to note that Kahn (1990) suggests that people can move anywhere along the spectrum of engagement and disengagement daily. Furthermore, where people fall on the spectrum can also be influenced by work tasks, not just the job environment, as previous research indicates (Kahn, 1990).

Some employees may ultimately enjoy their work environment and are engaged when completing their day-to-day tasks; however, there may be an instance where an employee has to complete an outside task. Being assigned that external task can influence an employee's level of engagement, either positively or negatively (Kahn, 1990). For example, if the employee is instructed to complete a task or role that makes them feel important, they may become more engaged (Balkrushna et al., 2018; Tong et al., 2019). Alternatively, if the role or task is perceived as unimportant and the employee sees no value, the employee may disengage (Balkrushna et al., 2018). Employees are personally engaged when they have the opportunity to express their best self within their role in an optimal work environment without any emotional, cognitive, or physical sacrifice (Kahn, 1990; Balkrushna et al., 2018; Tong et al., 2019).

Kahn (1990) emphasized the different impact variables can have on people's placement on the spectrum and went as far as to describe each moment as a contract between person and role (Arleth, 2019; Handayani et al., 2017; Kahn, 1990). Employee

engagement is often viewed in its totality; however, Kahn's theory suggests that engagement can be a summation of individual events. Having the understanding that the events can be isolated allowed Kahn to analyze separate events in his study to determine which variables impacted employee engagement.

Research Relative to Kahn's Engagement Theory

Each year the federal government administers the FEVS, which measures conditions conducive to engagement using the EEI as a metric. This metric includes 15 questions focusing on leaders leading, supervisor relationships, and intrinsic work experiences for employees (OPM, 2019). The National Aeronautics and Space Administration (NASA) was ranked number one as the best place to work in the federal government by the Partnership for Public Service (PPS). NASA had the highest employee engagement score of 81.5% (OPM, 2019; Partnership for Public Service [PPS], 2019). A study conducted by PPS (2019) found that employees at agencies with increased engagement agree that they are allowed to improve their skills, encouraged to come up with new ways to complete tasks, and feel their work is essential (Partnership for Public Service [PPS], 2019). In addition, NASA employees rated the questions included in the FEVS that relate to trust, improving skills, recognition, and innovation much higher than other agencies, especially those with lower EEI scores (OPM, 2019), which further supports Kahn's (1990) influencers of engagement. Another study by the PPS compared employee engagement rates in the private sector against those in the public sector.

Understanding how the public sector compares to the private sector in employee engagement is essential. The public sector must compete with the private sector to recruit

and retain high-performing employees. The PPS administered a 29-question survey comprised of questions included in the FEVS issued to private-sector employees. This study showed that the federal government fell behind the private sector in nearly every question (PPS, 2019). The most significant gap was a 30-point gap on the issue of employee voice. Eighty-two percent of private-sector employees reported trust in their leadership instead of only 71% of federal employees (PPS, 2019). Another area in that federal employees are rated lower than private-sector employees is awards and recognition. Approximately 51% of federal employees feel they receive recognition for their high-quality work, and only 45% believe that awards are given based on how well they perform their jobs (OPM, 2019; PPS, 2019). The ratings for these items in the private sector were 51% and 67%, respectively. Other lower-ranking areas for federal employees are related training, supervisor support for development, and the ability to develop innovative ideas. These issues resulted in a gap between seven and 17 points (PPS, 2019). The overall engagement score for the Federal Government in 2019 is 61.7, whereas the score for the private sector is 77 (PPS, 2019).

The PPS (2019) study findings suggest that trust within the organization, having the opportunity to improve skills, receiving recognition, and having a safe environment to foster innovation relate to increased engagement. These concepts support Kahn's engagement theory as it supports the notion that meaningfulness, safety, and availability impact levels of employee engagement (Arleth, 2019; Gruman & Saks, 2011; Kahn, 1990; Osborne & Hammoud, 2017). Kahn (1990) defines meaningfulness as a sense of return on investment on self-in-role performance. Tasks, roles, and work interactions are

all influencers of meaningfulness (Gruman & Saks, 2011; Kahn, 1990). Tasks should have some level of challenge and allow for autonomy and creativity. Employees also experience meaningfulness when they feel worthwhile and valued (Kahn, 1990; Osborne & Hammoud, 2017; Upadyaya & Salmela-Aro, 2020). Federal employees had lower ranking scores than the public sector regarding questions concerning innovation and employee voice. Federal employees also felt undervalued, as 49% of the federal employees who participated in the FEVS (2019) did not feel recognized for their quality work. The results show a negative impact on meaningfulness felt by the federal employees, which could contribute to the lower engagement rating. The scores were higher in the private sector, ultimately contributing to the higher engagement rating (PPS, 2019).

The findings of PPS (2019) suggest a lack of safety in the federal employee work environment. Safety relates to trust, openness, flexibility, and lack of threat in the workplace (Kahn, 1990). Employees feel safe when leaders are supportive, consistent, and trustworthy (Feuerahn, 2019; Funez et al., 2021; Morton et al., 2019). Fewer federal employees expressed trust in their leadership than in the private sector (PPS, 2019). The private sector employees rated this area 11 percentage points higher than the federal employees (PPS, 2019). The third factor is availability, which relates to emotional, physical, and psychological resources (Kahn, 1990). Training was rated lower and received less support by leadership in the federal workplace (PPS, 2019), an example of a lack of physical resources. Finally, insecurity is also an influencer of the availability factor. Lack of training or support for professional development can contribute to

employees being insecure in their skills and capabilities (Funez et al., 2021; Lee & Huang, 2018; Upadyaya & Salmela-Aro, 2020). Suppose the employees feel they are not provided enough resources to do their job adequately or that their leadership did not support their development. In that case, they are likely to refrain from sharing innovative ideas, hiding how they feel, and becoming less secure in their overall performance. Ultimately, the three areas that impact engagement were rated lower by the federal employees, potentially contributing to the overall lower engagement score.

Researchers have continued to use and expand upon Kahn's (1990) engagement theory. For example, Nguyen et al. (2018) conducted a study to examine the relationships between job engagement, transformational leadership, high-performance human resource practices (HPHRP), climate for innovation, and contextual performance. The researchers were looking to investigate what variables generate engagement and how the levels of engagement improve contextual performance in higher education. Engagement, in this study, is described as an enduring state of mind that refers to an employee's investment of physical, cognitive, and emotional energies. Thus, the definition of engagement in this study aligns with Kahn's definition of engagement.

Understanding how engagement influences organizational and employee performance and knowing what variables influence engagement can help organizations create more conducive environments to meet the needs of their employees and the organization. Nguyen et al. (2018) gathered the data for their study by sending an online and paper-based questionnaire to 14 public and private universities in Ho Chi Minh City, Vietnam, in 2016 (Nguyen et al., 2018). The data for both the dependent and independent

variables were collected from two sources, university academics, and their leaders, in two different phases. During the first phase, the academic staff completed a questionnaire regarding the transformational leadership styles of their leaders, job engagement, and HPHRP. During the second phase, the same team completed another questionnaire relating to their school's climate for innovation. The staff leaders were also surveyed in this phase, and their questionnaire addressed the organizational citizenship behavior (OCB) and the innovative work behavior of their staff. The researchers created a data file by matching the responses of demographics, transformational leadership, HPHRP, climate for innovation, and job engagement ratings by the staff during phase one and phase two, and the responses by leadership on OCB and innovative work behavior using assigned codes.

The framework for Nguyen et al.'s (2018) study is based on Kahn's (1990) engagement theory and social exchange theory to create a conceptual model that demonstrated a relationship between job engagement and transformational leadership, HPHRP, climate for innovation, OCB, and innovative work behavior. The findings suggest that transformational leadership and HPHRP are critical drivers of employee engagement levels, HPHRP having more influence than transformational leadership. HPHRP consists of selection, training and development, job security, promotion, performance-related pay, autonomy, and communication. Transformational leadership includes idealized influence, inspirational motivation, individualized consideration, and intellectual stimulation (Nguyen et al., 2018). The significant and positive relationship between these variables and employee engagement supports Kahn's engagement theory.

HPPHRP encompasses concepts influencing psychological meaningfulness, such as skill development, performance recognition, and autonomy. When employees experience meaningfulness, in this case through HPPHRP, they feel useful and valuable.

Transformational leadership relates to safety concepts (Lee & Huang, 2018). Safety provides an environment where employees can try and fail without fear of consequence, have supportive and trusting leadership with significant influence, and create and test new ideas and concepts (Kahn, 1990; Lee & Huang, 2018).

Creating an innovative climate can influence engagement (Funez et al., 2021; Kahn, 1990). Leaders who want success within their organizations must develop strategies to attain engaged employees (George & Joseph, 2014; Ghlichlee & Bayat, 2020; Kwon & Park, 2019). Employee engagement is fostered by a fulfilling experience that accounts for vigor, dedication, and absorption (Kim et al., 2016; Schaufeli et al., 2002). Ultimately, the study's findings by Nguyen et al. (2018) supported Kahn's (1990) engagement theory by identifying a positive relationship between the influencers, variables, and engagement. Furthermore, Nguyen et al. (2018) found that when engagement was present, employees were more willing to be involved in additional tasks outside their work tasks, complete tasks more effectively, and try more innovative approaches, contributing to increased OCB (Morton et al., 2019).

Implications of Kahn's Engagement Theory

Employees need to be able to express themselves and have a sense of autonomy in their work lives (Lee & Huang, 2018). Employees' psychological experience in the workplace drives their attitudes and behavior, ultimately impacting their involvement in

their roles. The lack of meaningfulness, safety, and availability can lead to personal disengagement, causing employee burnout and robotic performance (Kahn, 1990; Upadyaya & Aro, 2019). Employees become unexpressive and refrain from sharing thoughts and creativity instead of being innovative when experiencing burnout (Kahn, 1990; Kwon & Park, 2019; Upadyaya & Aro, 2019).

Organization leaders should be more cognizant of the effects of burnout on employees and their performance. Upadyaya and Aro (2019) conducted a study to determine what types of groups of employees can be identified according to the level of burnout, which consists of changes in their exhaustion, cynicism, feelings of inadequacy, and levels of engagement, consisting of energy, dedication, and absorption. The researchers also explored how work-related demands and resources and personal-related demands and resources predict employees belonging to the burnout or engagement profiles. Seven hundred sixty-six employees participated in this study, filling out a questionnaire concerning their burnout symptoms, work engagement, perceived demands and resources, and occupational health. The participants were surveyed twice. The results were analyzed in multiple phases. First, the results were assessed and grouped based on similar indicator means, burnout and engagement. Subsequent different work-related demands and personal demands and work-related resources and personal resources were added as covariates. The first group, 84% of the participants, were characterized by an average level of burnout and high engagement, which slightly increased over time. The second group represented 16% of the participants and was characterized by high levels of burnout that grew over time and an average level of engagement that decreased over

time. Employees who experienced high work-related and personal resources, such as servant leadership, resilience, and self-efficacy, were likelier to belong to the high engagement group. Employees who experienced high work-related and personal demands, such as project and relationship demands, were more likely to belong to the increasing burnout group.

Organizational leaders need to understand the impact of burnout and the importance of a workplace conducive to decreasing burnout. The results of Upadyaya and Aro's (2019) study suggest that employees were experiencing increasing levels of exhaustion, cynicism, and feelings of inadequacy and experiencing decreasing levels of energy, dedication, and absorption. Creating a work environment where employees have adequate resources and support to meet work demands can positively impact employee engagement and the effort they put into their work (Ghlichlee & Bayat, 2020; Seriki et al., 2020; Upadyaya & Aro, 2019).

Suppose employees believe their organization invests in them and provides the necessary resources to create an optimal workspace. In that case, employees are more likely to offer their resources and exhibit more effort, becoming more cognitively alert, emotionally attached, and physically involved (Concepcion, 2020; Lee & Huang, 2018; Kahn, 1990; Upadyaya & Aro, 2019). These three attributes represent a fully harnessed employee, and when all are applied, employees tend to be more productive and efficient (Kahn, 1990). Therefore, if leaders focused on creating a work environment that minimizes the negative impact on the cognitive, physical, and emotional engagement

attributes, they could foster employee engagement and inspire more positive productivity (Anithat, 2014; Kahn, 1990; Lin & Hsiao, 2014; Rana et al., 2014).

Alternate Theories

Although Herzberg's theory and Kahn's engagement theory are used in the theoretical framework for this study, it is essential to note that similar theories explore job satisfaction and employee engagement. Maslow's hierarchy of needs theory and SDT are two popular theories of motivation. Both of these theories are alternate theories to Herzberg's two-factor theory. In this section, I will present these theories and provide an analysis of each. Additionally, I analyze Job Demands-Resources Theory in this section as this is an alternate theory to Kahn's engagement theory.

Maslow's Hierarchal Theory

Maslow (1943) introduced a motivation theory known as the Hierarchy of needs theory. In his theory, Maslow suggests five basic needs: physiological needs, safety, social, self-esteem, and growth needs, also known as self-actualization. The hierarchy of these goals is in a pyramid shape, with physiological needs at the base as the basic needs. The pyramid also depicts the importance of some needs over others, showing how the order of satisfaction influences motivation. Physiological needs refer to one's most basic needs, such as thirst, air, and food (Gawel, 1996; Maslow, 1943). Staying safe from physical and psychological harm, security, stability, and protection are related to safety needs. The social need implies the need to feel a sense of belonging, esteem focuses on respecting self and others, and self-actualization is the need to reach one's maximum potential. Maslow's theory suggests that the goals are all related and range in a hierarchy

of prepotency, meaning before the higher-level needs can be met, the lower-level needs must first be met. When a lower-level need is met, motivation for satisfying that need decreases, and people will try to meet the needs of the next level (Gawel, 1996; Maslow, 1943; Stefan et al., 2020; Suyono & Mudjanarko, 2017).

Maslow's (1943) theory offers a practical theory of management for organizations and a psychological and social theory that explains changing social values and needs. In response to this, organizations that utilized Maslow's theory made efforts to make work more meaningful and fulfilling (Lusier, 2019). However, Maslow's theory has faced criticisms for not being supported by empirical data, assuming that employees are comparable, prioritizing the needs of the worker, and discounting employees' ability to achieve higher-order needs before lower-order needs (Graham & Messner, 1998; Kaur, 2013; Lusier, 2019; Stefan et al., 2020).

It is challenging to standardize organizational hierarchy goals as the needs differ from person to person based on multiple factors. A study by Lussier (2019) found that the assumption that employees are comparable proved to be a detriment of Maslow's theory as it neglected inequalities and poverty in the minds of organizations. Additionally, research has shown that motivation levels are higher when the higher-level needs are met (Deci & Ryan, 2014; Stefan et al., 2020). If leaders want to increase motivation in their organizations, they should focus on improving the higher-level needs.

Herzberg's Two-factor theory and Maslow's Hierarchy of needs theory are similar in that both theories agree that a specific set of needs must be fulfilled to achieve satisfaction. Additionally, each theory recognizes intrinsic and extrinsic motivators as

factors that influence job satisfaction. However, Herzberg's theory provides more insight regarding the factors to measure motivation and job satisfaction in the workplace, making it more applicable to this study.

Self-Determination Theory

Self-determination theory (SDT) is a motivation theory that suggests that people continually seek challenges and new experiences to master (Deci & Ryan, 2012; Legault, 2017; Link, 2021). Deci and Ryan (2012) examined the effects of extrinsic rewards on intrinsic motivation. The focus of SDT is on the influences of social environments on attitudes, values, motivations, and behaviors both developmentally and in current situations. Essentially, SDT suggests that humans naturally seek upward growth and strive to expand through new experiences, fulfilling their desires, and connecting with the outside world (Legault, 2017). However, that is not to say that humans cannot be controlled, fragmented, or alienated if their psychological needs for autonomy, competence, and relatedness are not met in a social environment.

According to SDT, people have an innate desire to perform and grow, and supporting action may need external motivators to enhance internal needs (Deci et al., 2017; Deci & Ryan, 2012). External motivators can contribute to a person reevaluating the importance of a task. An example would be an employee being offered a monetary award for completing a task within a specific timeframe. Employees may place more importance on completing tasks because they now have an extrinsic motivator. External motivators can also contribute to increased intrinsic motivation. If the extrinsic motivator

is positive reinforcement, such as verbal praise, intrinsic motivation will increase as the employee feels appreciated and valued.

The SDT is similar to Herzberg's Two-factor theory, as both theories focus on how internal and external factors motivate employees. However, SDT introduces motivation as a spectrum and is either autonomous or controlled (Deci & Ryan, 2012; Deci & Ryan, 2017; Legault, 2017; Link, 2021; Story et al., 2009). Autonomous motivation is intrinsic, meaning the employee completes the task because it is inherently satisfying. Controlled motivation is extrinsic. People are extrinsically motivated when performing duties because of the positive or negative consequences of the task.

The SDT places the external motivators on a spectrum ranging from non-self determined to most self-determined. The four types of extrinsic motivation include External Regulation, Introjected Regulation, Identified Regulation, Integrated Regulation. External Regulation is an entirely external driver; without the stimulus of the possible consequence, a person has no motivation to complete the task. This type of motivator does not stimulate innovation. Ultimately, employees motivated by external regulation have no other goals than receiving the reward or avoiding potential negative consequences. (Deci et al., 1991; Link, 2019; Service Innovation, 2019). Introjected regulation relates to people seeking approval from others or avoiding feelings of guilt or shame. Employees motivated by these factors often do not complete tasks out of satisfaction but merely because they do not want to feel guilty and pressured into doing something even though they may not want to. This factor can also contribute to

employees' feelings of safety in the workplace, as described in Kahn's Theory (1990), Herzberg's two-factor theory (1959), and Maslow's theory (1943).

Identified regulation includes internal characteristics; however, it requires external reinforcements. Employees internalize the tasks they have to complete and identify the value. Although employees may not want to complete the task, they understand that it is for a greater purpose. An example would be employees who love their jobs; however, they must complete mandatory training to remain certified. Employees may not want to do the training, but they understand the value and recognize that continuing to do the work they enjoy is necessary.

The last type of extrinsic motivation is integrated regulation. This regulation type is the closest on the spectrum to intrinsic motivation. These employees may not enjoy the tasks they have to do, but they perform well because the outcome aligns with their personal goals and values (Deci & Ryan, 2012). Like Herzberg's two-factor theory, SDT identifies the importance of autonomy, and integrated regulation is the most autonomous form of extrinsic motivation.

Although this theory shares similarities with Herzberg's two-factor theory, the foci for these theories are different. The SDT focuses on the impact of the social environment on motivation. Furthermore, the SDT does not explore the differences between motivation and satisfaction or how the external factors contribute to satisfaction. Because of this, Herzberg's two-factor theory proved to be more suitable for this study.

Job Demands-Resources Theory

The Job Demands-Resources Model (JDRM) has grown more popular throughout the early 2000s (Bakker & Demerouti, 2014). The JDRM is used to predict job burnout, organizational commitment, and work enjoyment, connectedness, and work engagement. The JDRM is also used to indicate the consequences such as performance and absenteeism (Bakker & Demerouti, 2014; Bakker & Demerouti, 2018; Bakker & de Vries, 2021). Since the use of the JDRM has grown, the model has since developed into the Job Demands-Resources theory (JDRT), which can be used to understand and predict employee well-being and job performance (Bakker & Demerouti, 2014).

JDRT is similar to other engagement and job satisfaction theories, as it supports the notion that internal and external variables influence job satisfaction and employee engagement. According to JDRT, all working environments can be modeled using job demands and resources (Bakker & Demerouti, 2014). Job demands refer to the physical, psychological, social, or organizational requirements needed to complete work duties (Bakker & Demerouti, 2014; Schaufeli, 2017). In short, job demands would be anything that drains employee energy. An example would be employees being overworked, which is when burnout is often referenced. Job resources are the physical, psychological, social, or organizational aspects that reduce job demands and the associated physiological and psychological costs, help achieve work goals, and stimulate personal growth, learning, and development.

Organizational leaders should understand the influencers of engagement and burnout and the resources needed to help their employees maintain positive well-being.

Different levels of various demands and resources can be unique to specific jobs.

Researchers continue to use JDRT because it allows the flexibility to tailor to particular occupations (Bakker & Demerouti, 2014; Kular, 2008; Schaufeli, 2017). JDRT posits similar concepts as Kahn's engagement theory as Kahn's theory developed to fit organizational life (Kahn, 1990; Kular, 2008). However, JDRT is an alternative model to engagement as the primary focus is on burnout, which erodes engagement (Schaufeli, 2017).

Two psychological processes are integrated into JDRT (Bakker & Demerouti, 2014). The first is a stress process (Bakker & Demerouti, 2014). This process evaluates the relationship between burnout and adverse outcomes. Essentially, having excessive job demands without sufficient resources can lead to employees having increased absenteeism, low performance, lack of energy, and, ultimately, mental exhaustion (Bakker & Demerouti, 2017; Bakker & de Vries, 2021; Schaufeli, 2017). The second process is the motivation process (Bakker & Demerouti, 2014). This process integrates engagement as a mediator, suggesting that an abundance of job resources may result in positive outcomes such as increased performance, extra-role behavior, and retention. It is important to note that JDRT suggests that burnout can result from high job demands and insufficient job resources. Alternatively, only abundant job resources contribute to work engagement. Ultimately, if resources are increased, engagement can increase, and burnout can decrease. However, if demand decreases, only burnout decreases; there is no impact on engagement. This is not to say that job resources and demand do not interact. Researchers have found that resources and demand may impact performance and help

predict occupational well-being (Bakker & Demerouti, 2017). Job resources can assist employees in managing job demands and mitigate the risk of employee burnout.

A notable extension of the JDRT was the addition of personal resources. These resources are considered motivators and are deemed to have an impact on both engagement and burnout. Personal resources include aspects such as autonomy, resilience, and positive self-evaluation. Essentially, positive personal resources can lead to intrinsic motivation, resulting in improved performance and overall employee well-being (Bakker & Demerouti, 2017; Bakker & Demerouti, 2018; Bakker & de Vries, 2021; Radic et al., 2020; Schaufeli, 2017).

Job demands and resources are essential in assessing employee well-being, burnout, motivation, and engagement. Like Kahn's engagement theory (1959), the JDRT explores the influencers of engagement; however, these theories differ in many ways. Kahn's engagement theory explores the factors contributing to employee engagement and disengagement within their work roles. Kahn's theory also suggests that engagement and disengagement are not on the same spectrum. Alternatively, the JDRT assesses employee engagement as a mediator via job resources. The spectrum for the JDRT ranges between engaged and employee burnout with the aim of preventing burnout. Because of the different focal points of the JDRT, Kahn's engagement theory was the best-suited framework for this study.

Problem

Low employee performance directly impacts organizational performance. To maintain satisfactory performance, organizational leaders should improve the factors that

influence employee performance. Job satisfaction and employee engagement have a positive relationship with employee performance. The United States Federal Government implemented an initiative in which the objective is to improve the performance of mission-related objectives and support (Metzenbaum, 2019). Leaders at federal agencies primarily focus on improving metrics such as budget and percentage of targets met for compliance. Government agencies were making progress in tracking performance and setting outcome-focused goals. However, agency leaders did not use the goals to motivate their employees or identify problematic practices that needed improvement.

The government began to assess agency performance to motivate mission-focused improvement. Unfortunately, these assessments did not include a mechanism that motivated high-scoring programs to continue to improve (Metzenbaum, 2019). Furthermore, low-rated programs resulted in agencies developing long-range planning efforts to address the issue rather than taking immediate action based on experience. Leaders focused more on improving their assessment scores than on the factors that led to the decreased scores. Federal agencies began to experience increased targets met; however, overall performance decreased (Lee, 2018; Metzenbaum, 2019). A decrease in employee performance can result in more employees being transferred, reprimanded, quitting, or fired (Lee, 2018). The federal government's organizational performance began to suffer as employee morale and productivity decreased. Additionally, with turnover increasing, agencies were experiencing a lack of adequate resources.

To remain competitive, organizations must focus on improving job satisfaction and employee engagement instead of meeting target metrics (PPS, 2019). Although

reaching targets reflects well on organizational performance, this performance is not sustainable, and overall performance decreases. Corporate leaders should understand the relationship between employee engagement, job satisfaction, and employee performance to sustain competitive advantage. The literature presented in this section aims to discuss the influencers of employee engagement and job satisfaction and how each factor relates to performance.

Employee Engagement

Research relating to employee engagement has focused on identifying the definitions and corresponding measurements of employee engagement and investigating the antecedents, outcomes, and boundary conditions of employee engagement.

Defining Employee Engagement

A prominent issue regarding engagement is the lack of a consistent definition which causes fundamental discrepancies. Researchers have expanded upon the engagement definition provided by Kahn (1990); however, the definitions are not synonymous. The lack of a clear definition can cause difficulty in understanding how organizational leaders can leverage, foster, and measure engagement (Barden, 2017; Byrne, 2015; Dewing & McCormack, 2015; Gruman & Saks, 2011; Kular et al., 2008; St. Aimee, 2020). Kahn defined employee engagement as the degree to which individuals immerse themselves in their work role, suggesting that people use varying degrees of themselves, physically, cognitively, and emotionally in the workplace (Dahl., 2019; Gupta & Sharma, 2016; Kahn, 1990).

Many researchers supported Kahn's view of employee engagement. Schaufeli and Bakker (2002) defined employee engagement as the positive, fulfilling, work-related state of mind characterized by dedication, vigor, and absorption. Vigor is defined as high levels of energy and mental resilience while working (Gera et al., 2019; Schaufeli et al., 2016). Dedication is defined as a sense of significance, enthusiasm, pride, and challenge, and absorption is characterized as being fully concentrated and deeply engrossed in their work, demonstrating difficulty detaching from their work (Arleth, 2019; Gera et al., 2019; Schaufeli & Bekker, 2002). Truss et al. (2006) defined employee engagement as an employee's passion for their work. Zacher et al. (2016) supported Truss's view. Further, Zacher et al. expanded their definition of engagement to the involvement, commitment, passion, and empowered outlook demonstrated by employees' work behavior (Zacher et al., 2016). Although there are varying definitions of employee engagement, researchers have found a familiar premise of employee engagement being determined by psychological factors and an employee's commitment to an organization, and the amount of effort they put into their work (Gruman & Saks, 2011; Joplin et al., 2021; Kular et al., 2008; Osborne & Hammoud, 2017; Pham-Thai et al., 2018; White, 2017).

Even with the familiarity in defining the construct of employee engagement between various researchers, it is essential to note that there are differences in understanding what constitutes a lack of engagement. Kahn (1990) defined disengagement as an employee withdrawing and decoupling themselves from their role. Disengaged employees display incomplete role performances and show decreased effort in completing tasks, often performing on autopilot. Alternatively, some researchers have

found that engagement is the positive antithesis of burnout (Bakker & Demerouti, 2014; Kular et al., 2008; Upadyaya & Aro, 2019). The different definitions make examining employee engagement difficult as various studies use different protocols. OPM defines engagement as an employee's sense of purpose that is evident in their display of dedication, persistence, effort in their work, and attachment to their organization and its mission (OPM, 2020). For this study, OPM's definition will be utilized to support Kahn's (1990) definition and measurement approach. OPM's definition is similar to Kahn's as both suggest that employees' level of engagement is depicted through their involvement in their roles. OPM's definition further expands on Kahn's definition by incorporating an employee's sense of purpose related to meaningfulness, an engagement influencer.

Influencers of Employee Engagement

Organizational leaders continue to take an interest in how to engage their employees adequately. Employee engagement is recognized as a driving factor for talent development, employee well-being, and employee performance and as means for organizations to gain a competitive advantage (Ali et al., 2019; Chin et al., 2019; Dewing & McCormack, 2015; Kwon & Park, 2019). Leaders must create and implement engagement strategies to influence their employees to increase their performance and productivity, leading to increased overall organizational performance (Albrecht et al., 2015; Bakker & Albrecht, 2018; Kahn, 1990). Leaders must first understand what influences employee engagement to create effective engagement strategies successfully.

Organizations are investing in designing, implementing, and evaluating interventions to improve employee engagement (Kwon & Park, 2019). To drive

engagement, employers need to foster an environment that creates conditions to improve productivity and profitability while contributing to the well-being of their employees (Byrne et al., 2017). Ultimately, leadership style and leadership's ability to understand what motivates their employees is critical in determining ways to engage employees. Although motivation and engagement are two different concepts, they are still related; employees' motivation levels can influence how easily they can be engaged (Adil & Hamid, 2019; Azevedo et al., 2020; Byrne et al., 2017; Gera et al., 2019). For example, intrinsically motivated employees connect with their position and desire to grow and develop. The intrinsic connection leads to increased employee engagement as they want to become more active in their role (Adil & Hamid, 2019; Amabile & Pratt, 2016). Understanding the difference between motivation and engagement and the relationship between motivation and engagement can help organizations determine strategies to sustain engagement levels.

Employees are critical assets and determinants of an organization's ability to gain and maintain a competitive advantage; therefore, leaders must be aware of essential factors of success or influencers of employee engagement. Job resources, management support, efficient technology and equipment, and professional development opportunities are all factors that influence engagement levels (Ghlichlee & Bayat, 2020; Sadatsafavi et al., 2016; Seriki et al., 2020; Srivalli & Mani-Kanta, 2016; Upadyaya & Aro, 2019). Leaders should assess the needs of their employees to determine which influencers of engagement are lacking. Understanding where employees feel their organization lacks can significantly benefit an organization by creating awareness and positioning leaders

with the ability to improve and monitor engagement levels, ultimately providing the opportunity to develop a solution to improve and sustain positive engagement levels (Kwon & Park, 2019; Narseen et al., 2019). By gaining buy-in from the employees, leaders also create an open environment, making employees feel valued, and fostering levels of trust between management and leadership. Having a connection with leadership can contribute to improved employee performance.

Employee Engagement and Performance

Leaders can determine an employee's level of engagement through their physical connection to their team and organization and their actions towards achieving their organizational goals. From an organizational performance stance, disengaged employees cost U.S. businesses approximately \$550 billion annually in lost productivity (Aslam et al., 2018; Kang & Busser, 2018). Furthermore, disengaged employees can lead to higher turnover rates; decreased quality of customer service, less efficient practices, increased stress levels, and an increased chance of accidents (Bhatt & Sharma, 2019; Gupta & Sharma, 2016; Jugdev et al., 2018; Risley, 2020; Seriki et al., 2020). Research has shown that leaders who emphasize improving engagement result in employees demonstrating creativity, staying with the organization, promoting work achievement, and increasing overall employee performance (Concepcion, 2020; Gupta & Sharma, 2016; Popli & Rizvi, 2015). Risley (2020) explored evidence-based strategies to motivate employees at a public library to do their best work and eliminate any processes that demotivated and discouraged employees. Personnel accounted for approximately 80% of the yearly budget, and therefore, the objective was to determine a method to engage employees

leading to better performance. One area of consideration was the effectiveness of annual performance reviews.

Annual performance reviews were expensive and representative of flawed and unreliable data that demotivates and holds back employees (Risley, 2020). Annual reviews were perceived as an unhelpful focus on the past but provided no guidance to employees on doing the best work in the immediate future (Risley, 2020). Risley implemented an approach of managers and supervisors meeting with their employees weekly. Employees were required to complete a weekly single-question pulse survey. The results showed that employees felt less anxiety about talking to their supervisors through weekly meetings and felt more familiar and comfortable with their bosses due to the consistent face time. The manager's role naturally shifted to that of a coach due to this change. It was discovered that agencies often provide coaching training but do not provide real-time opportunities to allow the managers to coach.

The coaching approach resulted in employees developing more efficiently as they were not as afraid to make mistakes or ask for help, assisting in developing a growth mindset approach. It is essential to encourage a growth mindset in an organization and be cautious about promoting a fixed mindset approach. Fixed mindsets can create inaccurate perceptions of employees and an inability to see growth potential in valued employees and improvements in less valued employees (Risley, 2020). Coaching employees and promoting growth is an approach that leaders can implement to improve engagement and improve productivity. Positive results were found in Risley's (2020) study. The amount of manager-employee coaching increased; between 80% and 90% of employees participated

in the pulse check, confirming an accurate representation of employee perspective, 91% of staff reported improved communication, and the overall employee engagement level increased as employee performance and satisfaction. Furthermore, Risley credited these changes as a contributing factor to maintained performance during the COVID pandemic. Confidence in employee retention and skill level increased, and the organization transitioned the entire workforce to telework in a single day.

When employees are engaged, managers notice the physical changes in their work performance (Kahn, 1990). Employees respond to leaders being interested in their well-being, challenging work, collaborative work environments, and clear goals. A positive response to leadership engagement strategies results in increased engagement resulting in employees being more dedicated to reaching organizational goals (Ali et al., 2019; Gruman & Saks, 2017; Huertas-Valdivia et al., 2018; Pham-Tai et al., 2019; Rozman et al., 2019). Risley's (2020) study supported the notion that increased engagement leads to better overall performance. As leadership focused on measuring engagement and determining what influenced engagement, they were able to implement more efficient strategies, yielding a greater return from their employees to the point of being prepared for a rapid work environment change to accommodate the restrictions of the COVID-19 pandemic.

Leadership should assess the needs of their employees to determine what resources and demands are being sufficiently met and which need improvement. Resources such as self-efficacy, organization-based self-esteem, optimism, and psychological needs have been empirically determined as antecedents of employee

engagement. Additionally, the balance between job resources and job demands is critical to high levels of engagement (Kwon & Park, 2019). Sharing information and getting buy-in from employees contributes to developing trust between employees and leadership (Marouf, 2016). Organizations that do not address engagement issues tend to breed more engagement issues, further hindering performance. Creating trust and addressing the needs of the employees can help increase overall engagement and can lead to improved performance. Employee job satisfaction levels also contribute to improved performance.

Job Satisfaction

Job satisfaction describes the degree to which an employee is satisfied with their type of work. An employee's level of job satisfaction is indicative of an employee's willingness to perform at an optimum level of performance (Hoffman-Miller, 2019). Furthermore, job satisfaction is related to the nature of job tasks and duties, the results achieved, supervisory relationships, and the overall liking of the job (Arifin et al., 2019; Prihadini et al., 2020; Wang & Brower, 2019). Employees can have different satisfaction levels depending on how tasks align with their individual intrinsic and extrinsic motivators (Herzberg, 1966; Prihadini et al., 2020). Extrinsic and intrinsic motivators significantly influence job satisfaction and, in turn, affect employees' work performance (Arifin et al., 2019; Taba, 2018; Wang & Brower, 2019).

Understanding job satisfaction is essential for an organization to maximize productivity and operations. Organizations with high satisfaction can reduce the long-term costs of employee turnover, sick leave, and workplace stress (Bakker & de Vries, 2021; Clark, 2017; Satuf et al., 2018; Schaufeli, 2017; Wnuk, 2017). Profitability is

greatly affected by job satisfaction. Replacing employees who quit can cost an organization between approximately six to nine months of their salary. The company will also suffer a loss in productivity, engagement, and overhead when an employee quits, potentially creating an overall cost of between 100 percent and 200 percent (Society for Human Resource Management [SHRM], 2019).

Additionally, employees with low satisfaction are 15 percent less profitable and 18 percent less productive than those with higher levels of satisfaction (Culibrk et al., 2018; SHRM, 2019). Approximately 71% of U.S. employees reported looking for another job due to a lack of satisfaction or influencers of satisfaction (Mental Health America [MHA], 2017). Furthermore, lack of satisfaction can impact the reputation of an organization. Dissatisfied employees often have higher absenteeism rates, affecting an organization's productivity. Lack of consistent work decreases customers' positive experience and risks essential tasks not getting completed (Kadotani et al., 2017). Employees with high satisfaction levels are more inclined to be dedicated to their organization and are less likely to leave their jobs, resulting in organizations retaining quality employees.

Influencers of Job Satisfaction

Understanding what factors influence job satisfaction is essential for business leaders to create a conducive work environment. All employees are not motivated by the same factors that influence satisfaction. Furthermore, they can experience different levels of satisfaction and dissatisfaction at varying times (Herzberg, 1959). Therefore, leaders should make efforts to understand which factors motivate their employees.

Understanding the prominent factors influencing satisfaction can help leaders manage their teams more efficiently (Herzberg, 1959; Kotni & Karumuri, 2018; Metzenbaum, 2019).

Many researchers have studied job satisfaction to determine the influential factors and how these factors motivate employees. The most prominent factors that researchers have found to influence satisfaction are (a) organization development, (b) policy, (c) advancement opportunities, (d) job security, (e) working conditions, (f) relationship with supervisors, (g) workgroup, and (h) leadership styles (Culibrk, 2018; Kang et al., 2021; Keith et al., 2021; Moraru & Popa, 2019; Norbu & Wetprasit, 2021; Shin & Hur, 2020). Each factor aligns with the factors Herzberg (1959) identified that cause satisfaction and dissatisfaction. Herzberg (1959) grouped the factors that affect satisfaction into two groups: motivation factors and hygiene factors.

Motivation Factors. Motivation factors are identified as satisfiers and pertain to motivating factors that are intrinsic to employees. Motivation is the process of inspiring employees to complete tasks to achieve specific organizational and personal goals and targets (Khezendar & Hamas, 2021; Ozsoy, 2019). Satisfiers make up positive attitudes for employee engagement and job satisfaction. An increase in motivation factors increases an employee's job satisfaction. The motivation factors are (a) achievement, (b) recognition, (c) the work itself, (d) responsibility, (e) advancement, and (f) possibility for growth (Herzberg, 1959; Kang et al., 2021). Positive achievement relates to an employee successfully completing a task, solving a job-related problem, or seeing positive results from their work (Alshmemri et al., 2017; Carvalho et al., 2020).

When employees notice positive results from their work, they feel more motivated to improve their skills. Identifying employees' achievements allows employees to determine their progress and, in turn, makes them more confident in their capabilities. Recognizing achievements and increased capabilities results in employees improving decision-making skills, creating more innovative ways to complete job tasks, becoming more efficient at completing tasks, acquiring additional skills, and increasing job satisfaction (Carvalho et al., 2020; Forjan et al., 2020; Kleine et al., 2019). Notably, when employees do not experience achievement often decrease in performance and are less satisfied with their jobs. Furthermore, employees avoid similar tasks that they have experienced past failures.

Experiencing a lack of achievement can result from a lack of awareness of successfully completed tasks. An example would be an employee who consistently makes deadlines but has not seen the metric to demonstrate their achievements. These types of achievements are also typically overlooked during annual reviews. Since negative achievement can impact performance, leaders and managers should acknowledge accomplishments and create an environment where employees feel safe when making mistakes. Having this safety can contribute to employees making another attempt to improve. Otherwise, organizations risk continued performance failure (Hyde, 2017; Lemaire, 2021; Risley, 2020; Snell et al., 2015). Organizational leaders provide awards and recognition to employees for superior performance, contributing to an employee's sense of achievement.

Positive recognition occurs when employees receive praise or rewards for reaching goals or producing high-quality work. Recognition of employees contributes to an organization's feeling valued and appreciated (Alshmemri et al., 2017; Baranwal et al., 2016; Chauhan & Singh, 2018; Osborne & Hammoud, 2017). Bevins (2018) conducted a study that found that Generation Z and Millennials rated recognition as a primary motivator factor over salary. Recognition and rewards demonstrate employee appreciation and influence employee commitment, dedication, and trust (Performance Related Pay, 2019).

Advancement and the possibility for growth are two factors that contribute to positive attitudes to the job, as these two factors satisfy the intrinsic need for growth. Advancement is defined as the upward status or position of the employee in the organization. Possibilities for growth include promotion opportunities, chances to learn skills, and gain new professional knowledge. Opportunities for growth and advancement impact an organization's ability to recruit and retain employees (Ali, 2020; Osborne & Hammoud, 2017; Wang & Brower, 2019).

Employees who can exercise autonomy within their role often experience increased job satisfaction. When employees have the freedom to make decisions, known as responsibility, they experience meaning in their work (Ma et al., 2020; Nikolova & Cnossen, 2020). The final motivation factor identified by Herzberg (1959) is the work itself. An employee's satisfaction level depends on the work's actual content. If employees are not motivated by the work itself, they are often not satisfied with their job (Alshmemri et al., 2017; Herzberg et al., 1959; Osborne & Hammoud, 2017).

Ensuring that motivator factors are maintained will help leaders keep their employees satisfied. Organizations with highly motivated employees are more likely to overperform and experience increased job satisfaction. Furthermore, highly motivated employees contribute to long-term organizational success. Highly motivated employees are more likely to stay at their current job, develop innovative processes to complete tasks, operate more efficiently, share knowledge, improve performance, and increase their effort to help the organization to meet its goals (Bhatt & Sharma, 2019; Byrne et al., 2017; Hejjas et al., 2019; Lee & Rhee, 2019 Paulo da Silva & Shinyashiki, 2014).

Hygiene Factors. Hygiene factors are referenced as dissatisfiers and are extrinsic motivators (Herzberg, 1959). When employees experience low hygiene factors, they are likely to experience increased dissatisfaction. Alternatively, employees experiencing positive hygiene factors result in reduced dissatisfaction. It is important to note that employees who do not experience hygiene factors are not necessarily unsatisfied with their job or role; however, they are experiencing increased levels of dissatisfaction (Yadav, 2019; Herzberg, 1959). Job satisfaction and dissatisfaction are measured by different sets of factors and therefore are measured on two different continuums (Alshmemri et al., 2017; Herzberg, 1959). The hygiene factors include (a) company policies, (b) interpersonal relationships, (c) salaries, (d) working conditions, and (e) supervision (Kang et al., 2021; Herzberg et al., 1959).

Hygiene factors relate to the work environment and job conditions (Herzberg, 1966). Leaders should be aware of this distinction to address issues causing dissatisfaction adequately. For example, if an employee is in a hostile work environment,

promoting or recognizing them will not result in less dissatisfaction. The employee may feel higher levels of satisfaction as their intrinsic needs are met (Alshmemri et al., 2017; Herzberg, 1966; Herzberg et al., 1959; Hur, 2017). The opposite is also true. If an employee is not satisfied, a high salary will not increase their level of satisfaction; however, the employee may experience reduced levels of dissatisfaction. The factors that lead to satisfaction are distinct and separate from those that lead to job dissatisfaction (Alshmemri et al., 2017; Herzberg, 2003; Herzberg, 1959; Yin et al., 2021; Lee, 2018; Rahman & Iqbal, 2013). Therefore, eliminating factors that cause dissatisfaction will not necessarily motivate employees to improve performance.

Interpersonal relationships between coworkers, employees, and supervisors are an integral determinant of employee dissatisfaction. Interpersonal relations are limited to personal and work relationships and include job-related interactions and social discussions in the work environment during breaks (Alshmemri et al., 2017; Herzberg, 1959). Organizations should create an environment that allows for a balance of work and personal interaction. Research has found that organizations that operate in this manner develop a sense of latitude between coworkers, peers, and supervisors. Having latitude contributes to trust-building and increased communication and collaborative efforts in completing work tasks (Azeem et al., 2020; Cao et al., 2021; Concepcion, 2020; Rouse, 2020; Soergel, 2020; Yen, 2021). When the balance of interpersonal relationships is offset, the latitudinal dynamic shifts to a longitudinal power dynamic and can cause tensions in the workplace. An imbalance in interpersonal relationships is typically identified when micro-managing occurs and when employees attempt to exert influence

or supervisory status over their coworkers and peers. Employees perceive the imbalance as mistreatment, leading to turnover, reduced mental health, and increased difficulty integrating new employees (Cao et al., 2021; Lee et al., 2021; Oyet & James, 2021; Soergel, 2020; Zhou et al., 2021).

Organizations often try to use salary to overcompensate for shortcomings. A common misconception is that salary is a primary indicator of employee satisfaction. According to Herzberg (1959), pay does not contribute to job satisfaction but the level of job dissatisfaction. Additionally, a handsome salary may lower dissatisfaction if the working conditions are inferior and do not favor the employee. However, if the work environment is not pleasant, the intrinsic value of compensation becomes relatively unimportant and is no longer a motivator for the employee (Alshmemri et al., 2017; Kang et al., 2021; Nikolova & Cnossen, 2020).

Company policies are considered one of the leading causes of employee dissatisfaction in the workplace. Company policies that do not favor the employees can lead to lethargy, demotivation, dissonance, and employees losing trust in leadership. Additionally, if policies and procedures are not followed, or employees feel they do not represent their values, employees can develop a feeling of betrayal against their supervisors and leadership (Azeem et al., 2020; Chimote & Malhotra, 2020). Employees experiencing dissatisfaction resulting from company policies often begin to look to leave their workplace. Employee dissatisfaction is detrimental to the organization as this increases the turnover rate but may also reveal that company policies are not in the best interest of their employees.

Supervisors are often in direct contact with employees and serve as the liaison between the employees and leadership. Because of the relationship that supervisors have with employees, supervisors greatly influence employees' perception of the organization and leadership (Carvalho et al., 2020; Kleine et al., 2019; PPS, 2019; Roberts et al., 2020; White, 2017). Organizational leaders should consider who they select for supervisory roles as these positions directly correlate to management and the organization, as perceived by employees. Furthermore, employees trust their supervisors to adequately represent and advocate for them and communicate their needs to leadership. Leadership should ensure that they are intentional with the use of their supervisors. Supervisors can provide real-time feedback to help acknowledge and resolve issues impacting performance. Serving as a communication channel and gaining insight from employees to provide leadership with input from the employees to contribute to the solution helps create trust in the organization (Alshmemri et al., 2017; Bevins, 2018; Ozsoy, 2021; Roberts et al., 2020; Udin & Yuniawan, 2020).

Hygiene factors are related to the conditions that apply to the job and the workplace. By ensuring hygiene factors are present, leadership can foster an environment that decreases dissatisfaction. When employees are content with their job context, organizational leaders can expect no dissatisfaction, but that does not necessarily mean that they will receive positive employee attitudes. Ultimately, poor hygiene factors can cause dissatisfaction, while better hygiene factors can reduce dissatisfaction. However, hygiene factors do not contribute to satisfaction. Understanding that the opposite of

dissatisfaction is no dissatisfaction can help leaders develop better strategies to reduce employee dissatisfaction.

Job Satisfaction and Performance

Job satisfaction is an employee's positive and negative feelings towards their job. Satisfied employees are more productive, dedicated to their jobs, more reliable, innovative, and willing to share knowledge with coworkers (Amiri et al., 2017; Budirianti et al., 2020; Culibrk, 2018; Mughal et al., 2021; Inayat & Khan, 2021). Job satisfaction strongly contributes to organizational performance (Bhatt & Sharma, 2019; Budirianti et al., 2020; Cankir & Arikan, 2019). For an organization to perform well, employees must demonstrate the necessary skills to perform tasks successfully and have the intention to stay with the organization. Efficient, dedicated, and high-performing employees save companies billions yearly (Barden, 2017; Budirianti et al., 2020; SHRM, 2019; State of the American Workplace, 2020). To remain competitive, leaders must invest in their employees and cultivate an environment that creates job satisfaction by increasing hygiene and motivator factors.

Leaders should understand the impact that satisfaction has on performance. Satisfied employees are willing to go above and beyond their job description to help an organization achieve its goals (Budirianti et al., 2020; Cankir & Arikan, 2021; Cao et al., 2021). When organizations fail to reach performance goals, whether financial or operational, leadership relies on employees to contribute to making up lost ground. However, if employees are not satisfied with their jobs or the organization, they are less likely to contribute more than required to help the organization reach its goals (Budirianti

et al., 2020). Although employees should not be expected to do more than needed, creating an environment that keeps employees satisfied is essential. Hence, they are willing to contribute increased effort to help the organization reach its goal (Norbu & Wetprasit, 2021), which can be critical for the livelihood of some organizations as job satisfaction is an essential factor in the continuity and success of an organization (Budirianti et al., 2020; Carvalho et al., 2020; Norbu & Wetprasit, 2021).

When assessing performance, leaders and decision-makers should be aware and consider their impact on their workforce. Company policies and practices influence employee perceptions of job security, fairness, and transparency. Employees observe policies and practices and measure how they align with their individual goals and values. When there is no alignment between employee values and company policy, employees often experience negative perceptions of job security, fairness, and transparency (Carvalho et al., 2020; Khezendar & Hamas, 2021; Lee et al., 2021; Yavuzkurt & Kiral; 2020). Employees are less likely to try new strategies to improve their skills or work processes and often withdraw from work when experiencing misalignment. Furthermore, when employees are not satisfied and have negative perceptions of job security, they are more likely to leave an organization in times of adversity.

Employees place a high amount of emphasis on job security. Lee et al. (2021) conducted a study that examined the effects of contracting out in US Federal agencies. Contracting out federal positions has provided substantial benefits to government organizations. However, federal employees sometimes interpret the hiring of contractors

as a threat to their jobs. The study by Lee et al. found that as government agencies increased their contracted positions, federal employees' intention to leave increased.

Furthermore, once satisfied employees decreased, federal employees' quality of work and overall productivity decreased (Lee et al., 2021). To alleviate employee concerns, leadership should be transparent with employees and provide emotional support, build trust, and take steps to address employee fears and anxieties (Kahn, 1990; Gruman & Saks, 2011). Additionally, leadership should give evidence of the gains that the organization stands to benefit from contracting out work while communicating its impact on their current jobs. Providing conducive information can reinforce safety for employees and help agencies retain their employees and maintain productivity (Lee et al., 2021; Metzenbaum, 2015; Norbu & Weprasisit, 2021).

Employees will not perform optimally if they are not motivated to do so. A satisfied employee does not necessarily equate to increased work performance. Leaders should ensure that they are making efforts to increase motivator factors and hygiene factors. Employees may be satisfied with their job; however, they will feel undervalued and unappreciated if they do not receive recognition or rewards for their work. Motivation is used to influence employees to work productively, and reinforcing the appreciation of effort contributes to employees' maintenance of productive work but will also encourage them to work harder to increase performance (Azeem et al., 2020; Budirianti et al., 2020; Carvalho et al., 2020; Kang et al., 2021; Keith et al., 2021; Khezendar & Hamas, 2021; Sherwood et al., 2018; Yavuzkurt & Kiral, 2020). An organization's success is highly determinant of employee performance. Low satisfaction

levels have led to counterproductive behaviors in the workplace, declining employee performance, and organizational performance (Azeem et al., 2020; Lee et al., 2020; Seriki et al., 2020; White, 2017). Organizational leaders should create environments conducive to employee needs and implement job satisfaction strategies to improve employee performance.

Employee Performance

Understanding what motivates employees is critical for leaders to maintain higher organizational commitment and performance. Employee performance is a performance result that can be achieved by a person or team in an organization, both qualitatively and quantitatively (Cankir & Arikan, 2019; Carvalho et al., 2020; Yen et al., 2021).

Employee performance levels are significant indicators of the success and sustainability of an organization (Buditianti et al., 2020; Carvalho et al., 2020; Norbu & Wetprasit, 2021). Companies should focus on maintaining and managing employee motivation so that employees are focused on helping the organization reach its goals.

Various factors impact employee performance. As discussed in the previous section of this literature review, employee engagement and job satisfaction have been found to have a positive relationship with employee performance. Motivation, leadership style, employee capability, and red tape are significant influencers of employee performance. Organizations that focus on improving these factors experience increased employee performance and organizational performance. Alternatively, organizations that have low-performing employees are at risk of decreasing the overall performance of the organization. Low-performing employees can negatively impact their team performance

and cost organizations billions of dollars annually due to lost productivity (Lee & Rhee, 2019; Ward, 2021). Customer satisfaction decreases as employee performance decreases, especially if consumers observe firsthand. Employees' low performance is often reflected in their attitudes and quality of service (Berraies et al., 2020; Copeland, 2020; Keith et al., 2021; Martinaityte et al., 2019; Ward, 2021; Yen et al., 2021). Customers who have a negative experience are less likely to return, especially first-time customers.

Organizational leaders can improve their customer satisfaction rates by ensuring that they are creating an environment that is conducive to employee performance.

Motivating employees creates a situation that can relieve employee anxiety and can stimulate the employee to carry out tasks and achieve higher goals. Organizational leaders and managers attempt to motivate employees through employee performance appraisals (Khezendar & Hamas, 2021; Norbu & Wetprasit, 2021; Pradana et al., 2021). Employees are more likely to be satisfied with their positions when they reach levels of achievement in the workplace and, in turn, are more driven to surpass performance metrics (Concepcion, 2020; Erum et al., 2020; Kang et al., 2015). Performance evaluations are used to provide feedback and as a motivator for employees to eliminate declines in performance.

Performance evaluations also contribute to the physiological needs of employees. However, some employees feel that the assessments do not adequately represent their work. Furthermore, annual performance reviews do not produce opportunities for employee performance improvement as the feedback may occur months after the unfavorable event. Such a large gap between feedback and occurrences can negatively

affect an employee's perception of security. Leaders should consider providing real-time feedback or feedback more frequently, as this motivates employees to increase their performance on a more consistent basis (Pradana et al., 2021; Risley, 2020). Furthermore, Offocevibe (2021) found that 98% of employees prefer to receive regular feedback, and the quality of feedback would increase if provided more frequently. Using an opportunity to provide more frequent and relevant feedback can help an organization motivate its employees to improve their performance (Girdwichai & Sriviboon, 2020; Grvina et al., 2021).

Leadership style is another critical factor that influences employee performance. Organizational leaders can influence employee performance levels through techniques that influence employees' perception of organizational performance and the meaning of their work. Employee performance depends on a proper match between a leader's ability to adapt to various situations. If the leadership style does not align with the objective or business problem, employees have demonstrated lower performance by missing targets, decreased productivity, and insufficient innovation (Iqbal et al., 2015). Leadership styles must stimulate employees to improve performance and adapt to change (Iqbal et al., 2015; Peng & Chen, 2021; Shah et al., 2021). For example, an autocratic leadership style would not fit an organization promoting collaboration and developing new innovative strategies.

Autocratic leadership styles promote a one-sided leader-driven dynamic. This leadership style intimidates employees and restricts their comfort in producing creative ideas. Furthermore, they may withdraw from the role, decreasing their performance

(Khan et al., 1959; Shah et al., 2021; Yen et al., 2021; Zhang & Chen, 2021).

Alternatively, employees are more likely to adapt and improve performance if the leadership style aligns with the goals and objectives. Research has shown that employees in service-related career fields improve performance when the leaders demonstrate servant-style leadership (Brouns et al., 2020; Peng & Chen, 2021).

Employee performance directly impacts organizational performance.

Organizational leaders should focus on determining how to improve the influencers of employee performance to remain competitive. To perform efficiently, employees must have the proper resources to complete their jobs successfully. A primary resource is training. Training helps develop employee skills and motivates them to contribute more time and effort to their organization. Training also contributes to closing skill gaps within the organization, resulting in increased productivity (Almalki, 2021; Girdwichai & Sriviboon, 2020; Tarmidi & Arsjah, 2019). Employees are an organization's most valuable asset as they spearhead the production. Increasing the factors that directly improve employee performance results in overall organizational performance (Paais & Pattiruhu, 2020; Tarmidi & Arsjah, 2019). Organizations can experience improved productivity, higher employee retention, and maximized use of resources, saving the organization costs and contributing to their competitive advantage.

Transition

Employee engagement and job satisfaction are critical factors in improving employee performance. Federal agencies consider employee engagement an essential driver of successful organizational performance (Lavigna, 2019). In 2015, OPM

introduced the Employee Engagement Initiative to address employee engagement issues within federal agencies (OPM, 2015). The Employee Engagement Initiative emphasizes creating organizational conditions that foster employee engagement (Kamensky, 2020) to expect increased employee engagement to improve performance. (Kamensky, 2019). This study conducted secondary data analysis on the 2019 Federal Employee Viewpoint Survey (FEVS) data. The independent variables identified in the FEVS were employee engagement, measured by the in the 2019 FEVS, and job satisfaction, measured by the GSI, items 40 and 69–71, in the 2019 FEVS. The dependent variable was employee performance, which will be measured using a composite variable consisting of items 15,16, and 19 in the 2019 FEVS.

As of 2017, the federal government employed approximately two million federal employees. Low levels of job satisfaction and engagement have a positive relationship with decreased productivity, turnover, and quality of work (Bhatt & Sharma, 2019). Government agencies would benefit from understanding the relationship between employee engagement, job satisfaction, and employee performance. Understanding the relationship between the variables could help leaders create an environment that creates a culture to foster improved performance by identifying influencers of job satisfaction and employee engagement and determining how performance is related to those factors. Furthermore, increased employee performance can improve organizational performance (Pitts, 2009; Choi & Rainey, 2010; Metzenbaum, 2015; Lee, 2018; Somers, 2018).

The literature review provides a critical analysis and complete synthesis of the applicability, basis, various perspectives, comparative research, and alternative theories

of the frameworks used to structure this study. Herzberg's two-factor theory and Kahn's engagement theory are the theoretical frameworks for this secondary data analysis. Both frameworks provide insights regarding job satisfaction and employee engagement influencers, respectively. Employee engagement, job satisfaction, and employee performance are the variables explored by this literature review. Section two of this study includes the project design and process.

Section 2: Project Design and Process

This study aimed to examine the relationship between employee engagement, job satisfaction, and employee performance. I used secondary data collected from the 2019 FEVS. Section 2 of this study includes a discussion of the method and design used to conduct this study. This section also contains information regarding how the data were collected and analyzed for this study.

Method and Design

The purpose of this quantitative correlational ex post facto study was to examine the relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. The research question (RQ) and hypotheses of this study were as follows:

RQ: Does a significant relationship exist between employee engagement, job satisfaction, and employee performance among employees within the federal government?

*H*₀: There is no statistically significant relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government.

*H*₁: There is a statistically significant relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government.

Method

The three primary research methodologies are qualitative, quantitative, and mixed (Ezer & Aksut, 2021; Saunders et al., 2016). The qualitative research method is used to examine and understand the perceptions and experiences of individuals and social life. Qualitative research tools include field notes, observations, and interviews. Qualitative research provides the researcher with the flexibility to ask follow-up questions to gain additional insights and the flexibility to incorporate multiple realities for analysis of people's understanding and perception of how or why a phenomenon occurs (Ezer & Aksut, 2021; Rahman, 2017; Saunders et al., 2016; Wolday et al., 2019). The findings produced by qualitative research are not arrived at by statistical procedures or any other quantification. Therefore, it was not the best research method for this study, because I wanted to determine whether a relationship exists between the independent and dependent variables.

Quantitative research is used to examine the association or relationship between variables by analyzing data using statistical techniques. This research methodology was most appropriate for this study as I analyzed existing data to determine whether there is a statistically significant relationship between employee engagement, job satisfaction, and employee performance. A primary disadvantage of the quantitative research method is the failure to identify deeper underlying meanings and explanations for phenomena (Rahman, 2017; Yin, 2014). However, the primary advantage of this research method is the use of objective data, which separates the researcher from the research object, and the results can be reproduced, determining reliability (Rahman, 2017).

It is important to note that the quantitative and qualitative research methods are not substitute methods and cannot be used interchangeably. However, these two research methods can be used together, known as the mixed methods research method. The mixed methods research methods use both statistical data and textual data. Since this study did not use any qualitative data collection techniques, the mixed method research method was inappropriate for this study.

Design

The intent of this study was to determine whether a statistically significant relationship exists between employee engagement, job satisfaction, and employee performance. This study was an ex post facto study as secondary data were analyzed. An ex post facto design allows for examining how independent variables affect dependent variables. A disadvantage of utilizing the ex post facto research design is that the researcher cannot manipulate the variables and cannot reassign research subjects to different groups (Akinulua, 2019; Apkan, 2020). Despite this limitation, the ex post facto research design has distinct advantages. This research design is useful for analyzing causal relationships between independent and dependent variables and can be less time-consuming than experimental research as the researcher can use previously collected data (Akinulua, 2019; Salkind, 2010).

Data were collected from the 2019 FEVS data set, a pre-existing public dataset initially collected by OPM, to test the relationship between employee engagement, job satisfaction, and job performance amongst employees in the federal government. Employee engagement was measured using the FEVS Employee Engagement Index

(EEI); job satisfaction was measured using the FEVS Global Satisfaction Index (GSI), and job performance was measured using a composite variable of Items 15, 16, and 19.

Missing data have the potential to bias future research findings. The 2019 FEVS consists of responses from 615,395 employees, which represents approximately a 42.6% response rate. The participants are federal employees representing 83 agencies (OPM, 2019). Missing data can occur due to refusal to respond, partial response, loss of data, and indecipherable responses (Gorard, 2020). Missing data can negatively impact the reliability and validity of this study (Mohajan, 2017). Missing data were addressed as they occurred. For this study, cases that were missing a response to any of the core and demographic questions were removed.

The data were analyzed using SPSS statistical software. I used SPSS to present descriptive and inferential statistics, including assumptions of outliers, multicollinearity, normality, linearity, homoscedasticity, and independence of residuals, while noting any violations. The data assumptions of this study are (a) archival data collected is valid, credible, and reliable; (b) all data were collected ethically; (c) data were not manipulated to create a specific outcome; (d) all data were obtained voluntarily; (e) data are unchanged and raw. I described the mean and standard deviation and used power analysis to determine the sample size. Furthermore, I used the Pearson correlation parametric test to determine the relationship between linearly related variables. Once a relationship was established, I ran a multiple linear regression analysis.

I used multiple linear regression to test if a statistically significant relationship exists between this study's independent and dependent variables. The data were analyzed

using the multiple linear regression function within SPSS statistical software. Multiple linear regression analyses can be used in quantitative correlational research designs, which test the relationship between two or more variables (Aderibigbe & Mjoli, 2019; Salkind, 2010). Quasi-experimental and experimental designs are also used for quantitative research. However, experimental designs focus on causation, and quasi-experimental designs determine impact after manipulating predictor variables. Since the focus of this study is to determine if there is a relationship between employee engagement, job satisfaction, and job performance, a correlational design is most appropriate for this study.

Ethics

For this study, I used archival data collected by the OPM. The data are available on the OPM website. The FEVS was administered to all full-time and part-time federal employees in Spring 2019. OPM mandates agencies to allow employees to participate in the FEVS and submit responses anonymously. The archival data do not contain any personal information from the participants. Although the data do not contain any of the participants' personal information, I will maintain the data in a safe place for 5 years to protect the rights of the participants. IRB approval was also obtained for the final doctoral degree credit (approval number no. 01-13-22-0981064).

Transition and Summary

The purpose of this quantitative correlational ex post facto study was to examine the relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. This study was an ex post

facto study as it used after-the-fact data. The quantitative research method was the most appropriate for this study as the quantitative methodology is used to determine the relationship between variables. Data for this study was collected from the 2019 FEVS data set, which is publicly available on the OPM website. A multiple linear regression analysis was used to test if a statistically significant relationship exists between this study's independent and dependent variables. The archival data used for this study do not contain any personal information from the participants. Although the data does not contain any of the participants' personal information, I will maintain the data in a safe place for 5 years to protect the rights of the participants, and IRB approval was obtained. In Section 3, I present the quantitative data analysis and recommendations for future research and discuss the impact of social change.

Section 3: The Deliverable

The Deliverable

This section includes a comprehensive executive summary with a presentation of quantitative data analysis to include graphs and figures. The executive summary includes an overview of the study, identifies the goals and objectives, and provides the results and conclusions of the analysis, recommendations for actions, a communication plan, and the social change impact. This section also includes the presentation of quantitative data analysis, results (descriptive and inferential) and conclusions of the analysis, recommendations for action, communication plan, social change impact, and skills and competencies,

Executive Summary

The purpose of this quantitative ex post facto study was to examine the relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. The independent variables were employee job satisfaction and employee engagement, and the dependent variable was employee performance. A multiple linear regression analysis was used to determine if there was a statistically significant relationship between job satisfaction, employee engagement, and employee performance. Empirical research found that employee performance is influenced by both employee engagement and job satisfaction (Bhatt & Sharma, 2019; Choi & Rainey, 2010; Lee, 2018; Metzenbaum, 2015; Pitts, 2009; Somers, 2018).

The data used for this study were secondary data obtained via the 2019 FEVS. FEVS is an annual survey that measures employees' perception of whether or to what extent conditions characterize successful organizations in their agencies (OPM, 2019). FEVS data are appropriate and relevant to my research study. They are the most cost-effective, convenient, and efficient way to meet my research objective: to measure the relationship between employee engagement, job satisfaction, and employee performance within the federal government. Using secondary data enabled me to conduct my research without directly interacting with the respondents. My portfolio study did not require the use of standard data collection instruments. Using archival data eliminated the requirement for the second level of IRB approval.

My portfolio study provided much-needed insight into how employee engagement and job satisfaction relate to employee performance. Furthermore, the research in this study provided additional insight into the influencers of job satisfaction and employee engagement. I plan to share the results of this study with leaders in the federal government. Leaders within the federal government will find the result of this study beneficial as the information can help leaders assess areas of improvement better when trying to increase performance. The information provided can assist leaders in developing programs and strategies that more accurately evaluate and measure employee engagement and job satisfaction in the workforce. Furthermore, these strategies can help leaders identify overarching issues that negatively impact engagement and satisfaction and create innovative ideas to address the issue. Federal employees that are highly engaged will result in improved performance.

Goals and Objectives

The goal of this study was to determine whether there is a relationship between job satisfaction, employee engagement, and employee performance in federal government employees. This study's objectives included collecting and analyzing the data from the 2019 FEVS dataset, establishing a sample size, running a multiple linear regression analysis, and interpreting the results. A total of 615,395 employees participated in the 2019 FEVS. The Codebook, DataSet, and Analysis from the U.S. Office of Personnel were used to run a multiple linear regression. Demographic data were also used in the study to describe the sample, including the following information: gender, education, tenure with the federal government, and supervisory status. The 2019 FEVS consisted of 101 questions asked to employees regarding personal work experiences, satisfaction, leadership, training, performance, employment and unique demographics, supervisor, work-life programs, and the partial government shutdown. For this study, I measured employee engagement using the EEI, job satisfaction by the GSI, and employee performance (dependent variable) by using a composite variable consisting of Items 15, 16, and 19 in the 2019 FEVS (see Appendix B).

Overview of Findings

The responses of the 615,395 participants were included in the 2019 FEVS dataset. A priori power analysis using G*Power determined that a sample size of 68 cases would be considered a successful sample. The sample size was based on a medium effect size (.15), a significance level of .05, two predictor variables, and a complement of probability of Type II error $(1-\beta) = .90$. Though a total of 68 cases was determined to be

the threshold based on the power analysis, the power to detect a result continued to significantly increase from .80 to approximately .95 as the sample size increased from 68 cases to approximately 100 cases and did not significantly increase after a sample size of 100. Based on these results, a sample of 100 cases was used for this study. Preliminary analyses were conducted to assess whether the assumptions of multicollinearity, outliers, normality, linearity, homoscedasticity, validity, and independence of residuals were met; no serious violations were noted.

The independent variables were employee engagement and job satisfaction. The dependent variable was employee performance. Multiple regression was run using SPSS Version 28.0 to predict employee performance from employee engagement and job satisfaction. The multiple regression model statistically significantly predicted employee performance, $F(2,97) = 43.836, p < .001, R^2 = .475$. Employee engagement was statistically significant ($t = 3.594, p < .001, \beta = .504$). Job satisfaction was not significant ($t = 1.788, p > .05, \beta = .225$). Regression coefficients and standard errors can be found in Table 7. Standard multiple linear regression, $\alpha = .05$ (two-tailed), was used to examine the efficacy of employee engagement and job satisfaction in predicting employee performance. Job satisfaction and engagement statistically significantly predicted employee performance: $F(2,97) = 43.836, p < .001, R^2 = .475$ with an adjusted R^2 of .464. The R^2 value indicated that employee engagement and job satisfaction explained approximately 47% of the variability of employee performance. Employee engagement was statistically significant ($t = 3.594, p < .001, \beta = .504$), accounting for a higher contribution to the model than job satisfaction ($t = 1.788, p > .05, \beta = .225$) based on the β

value of .504. This value represents an approximate 50% variability of employee performance as opposed to job satisfaction which represents a 22% variability of employee performance. Although job satisfaction was not significant, the relationship between job satisfaction and employee engagement is statistically significant.

There was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values. The independence of residuals was assessed by a Durbin-Watson statistic of 1.891. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity, as assessed by tolerance values greater than .1. One case included in the sample used for this study was identified as having a value greater than three standard deviations in which the value was 4.544. It was noted that this case was considered an outlier; however, it did not demonstrate high leverage or a high level of influence, as there were no leverage values greater than .2 and values for Cook's distance above 1. The assumption of normality was met, as assessed by a Q-Q Plot.

Recommendations

This study's results determined a statistically significant relationship between employee engagement and employee performance. Furthermore, it was found that job satisfaction, as measured by the GSI, did not directly influence employee performance; however, employee engagement serves as a mediating variable. Leaders in the federal government would benefit from researching what elements affect satisfaction and employee engagement and to what degree. The recommendations for leaders within the

federal government are (a) determine motivational and hygiene factors; (b) determine influencers that improve the physical, emotional, and cognitive factors of employee engagement; (c) address issues that could impact job satisfaction and engagement; and (d) redesign or develop a more accurate measurement of employee engagement and job satisfaction with FEVS data by regrouping questions that represent motivators, hygiene factors, and employee engagement. These actions could contribute to increased and improved employee performance in the federal government. With this understanding, leaders in the federal government can use the FEVS data to identify low-performing influencers and invest in strategies that positively influence job satisfaction and employee engagement.

Presentation of Quantitative Data Analysis

In 2019, 615,395 responses were included in the 2019 FEVS dataset. All permanently employed, non-political, non-seasonal, full- and part-time federal employees in pay status, or those eligible to receive pay, as of October 2018, were eligible to participate in the 2019 survey. This study used a sample size of 100 fully completed cases. In this subsection, I will discuss testing the assumptions, present descriptive statistics, and present inferential statistics results.

Descriptive Statistics

The responses of the 615,395 participants were included in the 2019 FEVS dataset; however, there were instances where employees did not answer all the questions resulting in missing data. Missing data can occur due to refusal to respond, partial response, loss of data, and indecipherable responses (Gorard, 2020) and can negatively

impact the reliability and validity of this study (Mohajan, 2017). Any employee submission that did not include a response to all questions provided in the dataset was considered an incomplete response and removed from the dataset for this study. Once incomplete responses were omitted, a total of 267,983 complete responses remained. The 2019 FEVS was administered to employees on May 14, 2019, and closed on June 18, 2019. The 2019 FEVS was provided to federal employees approximately 3-and-a-half months after the longest U.S. Federal Government partial shutdown in history.

The U.S. Federal Government shut down from December 22, 2018, until January 25, 2019 was due to Congress and former President Donald Trump not reaching a resolution regarding the appropriations bill to fund government operations in the 2019 fiscal year. The shutdown affected nearly 800,000 federal employees, with approximately 380,000 being furloughed and the rest of the employees working without pay (Williams, 2019). Furthermore, this shutdown was the second shutdown that resulted in furloughs under the Trump Administration. Consequently, questions related to the shutdown were included in the 2019 FEVS. The 2018 government shutdown was a unique situation that may have influenced employee's engagement, performance, and satisfaction levels at the specific time, which could have skewed the data per employee response from what would have otherwise been a response indicative of ordinary circumstances. To mitigate this potential risk, responses that identified being impacted by the 2018 shutdown were not included in the population, resulting in a total of 100,747 responses remaining.

An a priori power analysis using G*Power, an online power analysis tool, determined that a sample size of 68 cases would be considered a successful sample. The

sample size was based on a medium effect size (.15), a significance level of .05, two predictor variables, and a complement of probability of Type II error $(1-\beta) = .90$. As shown in Figure 2, an adequate sample size would be 68.

Figure 2

Power Prior Analysis

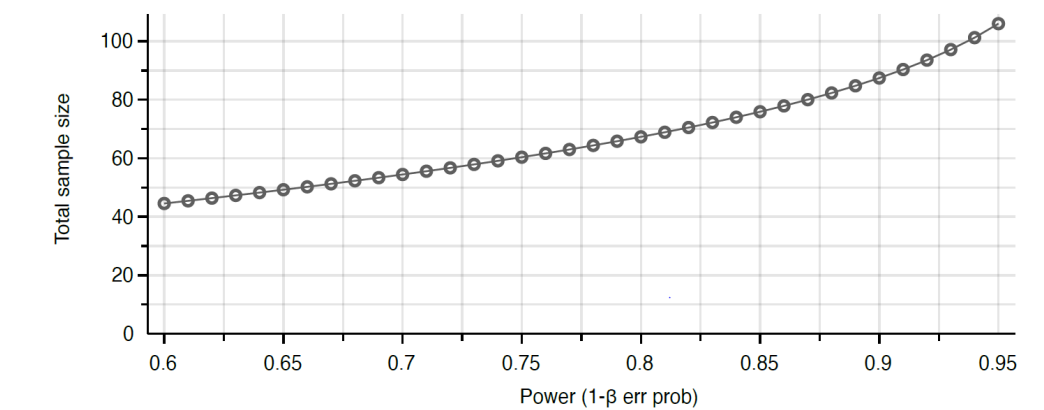


Figure 2 shows that the power of the test does not significantly increase after a sample size of 100. A total sample size of 68 shows the power of the test being approximately .80. Between a sample size of 68 and 80, the power increases from about .83 to .88, a .05 increase. A sample size from 80 to 90 showed an increase in power from approximately .87 to .91, a .04 increase. The power of the test only increased by about .03 from .91 to .94, with a sample size of between 90 and 100. A sample size of 100 is sufficient as it meets the required threshold of 68 and the power of the test is .90 indicating a lower probability of receiving a Type II error (Ampatzoglou et al., 2019). Tables 1 and 2 depict descriptive results for the study sample. Table 1 displays the descriptive statistics for the independent and dependent variables included in this study.

Table 2 presents the demographic representation data obtained from the 2019 FEVS that describes the sample used for this study.

Table 1

Descriptive Statistics for Study Variables

Variable	<i>n</i>	<i>M</i>	<i>SD</i>
Employee Engagement	100	4.0856	.82183
Job Satisfaction	100	3.9300	.91638
Employee Performance	100	4.0533	.86550

Table 2

Gender, Minority, Education, Supervisory Status, and Years in Service

Variable	<i>N</i>	Percent
Male	66	66.0%
Female	34	34.0%
Minority	33	33.0%
Non-Minority	67	67.0%
Less than a Bachelor's Degree	27	27.0%
Bachelor's Degree	39	39.0%
Beyond a Bachelor's Degree	34	34.0%
Non-Supervisor/Team Leader	86	86.0%
Supervisor/Manager/Senior Leader	14	14.0%
Ten years or fewer	49	49.0%
Between 10 and 20 years	29	29.0%
More than 20 years	22	22.0%

Statistical Tests of Assumptions

The sample size for this study ($N = 100$) was larger than the required sample size of 68. Assumptions of independence, linearity, homoscedasticity, multicollinearity, normality, outliers, and unusual points were tested. This study consisted of one dependent

variable, employee performance, and two independent variables, job satisfaction, and employee engagement. Each variable is measured at the continuous level from 1 to 5, where 5 is a positive response and 1 represents a negative response. The data in this study have been used to analyze the relationship between the dependent variable and two independent variables, making it suitable for multiple regression analysis (Zakeri et al., 2020).

Independence of Errors

The Ordinary Least Squares assumption states that error terms are uncorrelated (Uyanto, 2020). Autocorrelation of error terms violates the Ordinary Least Squares assumptions (Uyanto, 2020). If the Ordinary Least Squares assumption is violated, an autocorrelation error may be detected, which is problematic for linear regression as there is a lack of independence of residuals. In this instance, multiple regression is not a suitable analysis method (Uyanto, 2020). The Durbin Watson test is the most frequently used test to detect autocorrelation errors (Uyanto, 2020; Draper & Smith, 1998). The Durbin-Watson statistic ranges from 0 to 4, where 2 represents no correlation between residuals. Table 3 depicts the Durbin-Watson statistic for this study. The Durbin-Watson statistic for this study is 1.891. This value is very close to 2; therefore, it can be accepted that the errors were independent.

Table 3

Multiple Model Regression Summary

Model	R	R ²	Adjusted R ²	SE of the Estimate	Durbin-Watson
1	.689 ^a	.475	.464	.63370	1.891

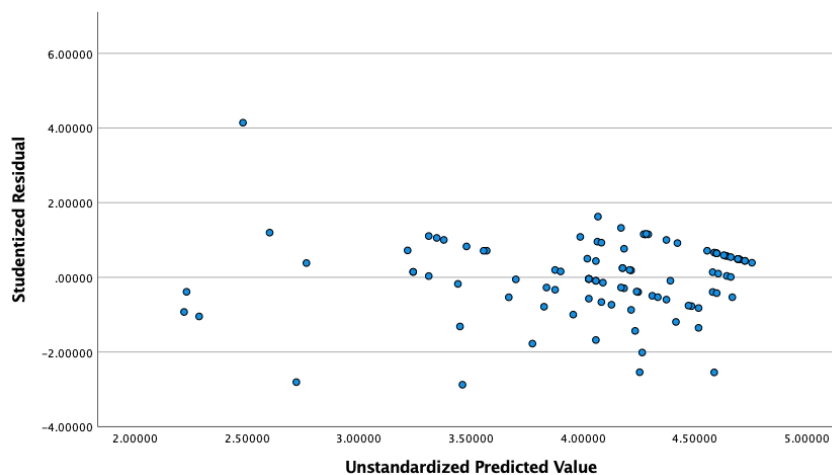
-
- a. Predictors: (Constant), Global Satisfaction Mean, Employee Engagement Index Mean
 b. Dependent Variable: Performance Mean

Linearity, Homoscedasticity, Outliers, and Normality

To test linearity between employee performance (dependent variable) and employee engagement and job satisfaction (independent variables) collectively, studentized residuals were plotted against unstandardized predicted values. The degree to which a change in the dependent variable is related to the change in the independent variables determines linearity and is depicted when the data follow a straight line (Saunders et al., 2016). Figure 3 shows a linear relationship between the dependent and independent variables as these data follow a straight line.

Figure 3

Linearity Between Study Variables



Furthermore, Figure 3 was used to determine homoscedasticity. Homoscedasticity is the assumption that the variance is equal for all dependent variable values (Flora & Ocana, 2022). Figure 3 was assessed by visual inspection, and the residuals were found to

be homoscedastic as the residuals have constant variance (Flores & Ocana, 2022). This means that the variance is equal for all dependent variable values.

Figure 4 shows a somewhat linear relationship between job satisfaction (Global Satisfaction Mean) and employee performance (Performance Mean). The data shown in Figure 4 follow a straight line that is slightly positive. Although Figure 4 shows a partial correlation, the R value was .636, indicating a positive relationship between job satisfaction and employee performance. Additionally, the R^2 value is approximately .40. The closer this value is to 1, the stronger the correlation (Khedidja & Moussa, 2022); this lesser value of .40 may contribute to the somewhat linear relationship depicted in Figure 4.

Figure 4

Linearity between Employee Performance and Job Satisfaction

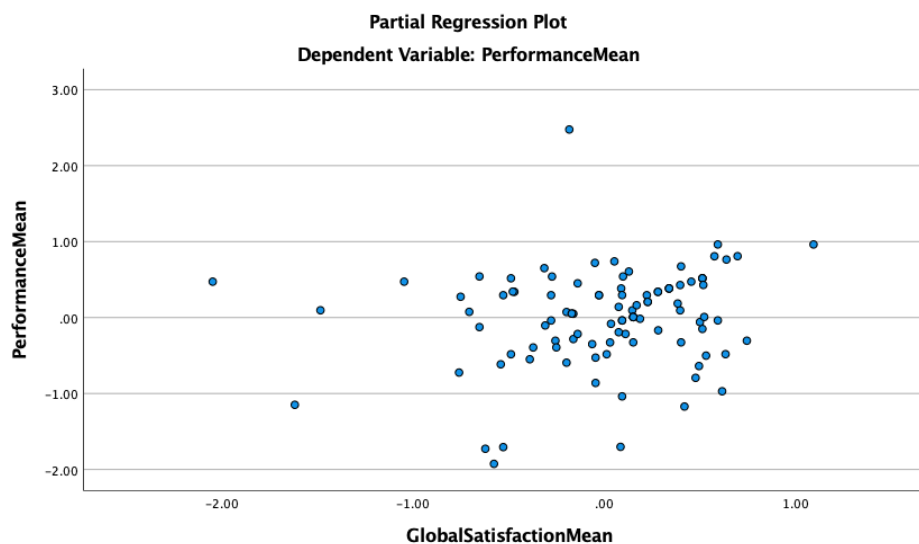
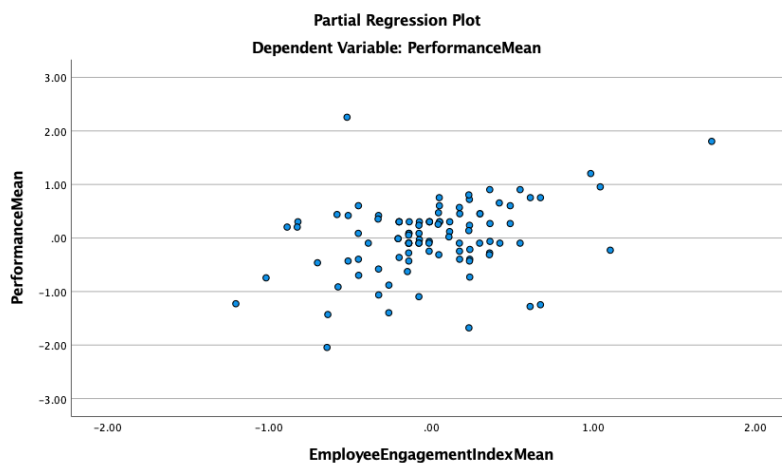


Figure 5 depicts a linear relationship between employee engagement (Means) and performance. The R value was .676, indicating a positive relationship between job

satisfaction and employee performance. Additionally, the R^2 value is approximately .46, slightly greater than that in Figure 4. This increase contributes to the more defined relationship shown in Figure 5.

Figure 5

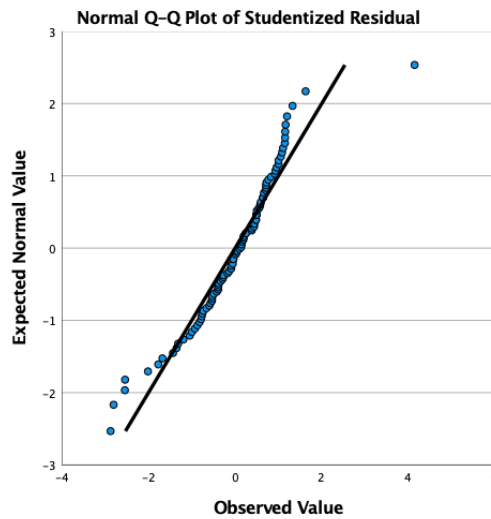
Linearity Between Employee Performance and Employee Engagement



Outliers are standardized residuals with values greater than three standard deviations or less than -3 standard deviations (Ugah et al., 2021). SPSS was used to evaluate the presence of outliers, leverage points, and influential points. Variable SDR_1 is the studentized deleted residual, which is the deleted residual divided by its estimated standard deviation. Studentized residuals are more effective for identifying outliers because they quantify how large residuals are in standard deviation units (Arimie et al., 2020). Therefore, the values of SDR_1 were assessed to determine if any of the cases had a standardized residual value greater than \pm standard deviations. Only one case was identified as having a value greater than three standard deviations, which was 4.544. It

was noted that this case was considered an outlier; however, the case did not demonstrate high leverage or a high level of influence. Essentially, leverage values less than .2 are deemed safe, .2 to .5 are risky, and .5 and above are considered dangerous (Laerd, 2015). Cook's Distance is a measure of influence and was used to determine if any cases in this study were found to have high levels of influence. Generally, any case with a Cook's Distance value greater than 1 should be investigated (Laerd, 2015; Menzel et al., 2017). No cases in this study were found to have high leverage or high levels of influence.

A Q-Q plot was used to evaluate normality. If the residuals are aligned with the diagonal line, the normality assumption can be supported (Green & Salkind, 2017). Examination of the Q-Q plot, as shown in Figure 6, indicates that it may violate the assumption of normality. Non-normal data can be transformed to establish normality. The data was approximately normally distributed. Although the points on the Q-Q Plot are not perfectly aligned, the residuals are close enough to normal to proceed with the analysis as multiple regression analysis is robust to non-normality (Kneif & Forstmeier, 2020). A Shapiro-Wilk Test of Normality was also used to determine if the normality assumption was violated. Table 4 shows that $p < .05$, indicating normal distribution. Furthermore, Central Limit Theorem suggests that a sample size of 30 or more, in which $N = 100$ for this study, is sufficiently large, and normality becomes less critical (Mordkoff, 2016; Zhang et al., 2021).

Figure 6*Normal Q-Q Plot of Studentized Residuals***Table 4***Tests for Normality*

Variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Employee Engagement	.149	100	<.001	.870	100	<.001
Employee Performance	.165	100	<.001	.879	100	<.001
Job Satisfaction	.230	100	<.001	.880	100	<.001

Multicollinearity

Multicollinearity occurs when two or more independent variables are highly correlated (Ali et al., 2019; Byrne et al., 2017; Laerd, 2015). Multicollinearity was evaluated by viewing the tolerance Variance Inflation Factor (VIF). The VIF measures

the amount of multicollinearity between variables in a multiple regression analysis (Laerd, 2015). Multicollinearity is present when the tolerance values are less than .1 which is a VIF greater than 10. Generally, a VIF between 1 and 3 indicates some degree of multicollinearity. A VIF between 3 and 5 indicates moderate multicollinearity and may not require correcting (Yen et al., 2021). Lastly, a VIF higher than 5 indicates a severe issue, and steps should be taken to overcome the multicollinearity problem (Singh & Kumar, 2021; Thompson et al., 2017). The tolerance value for this study was .306, and the VIF was 3.269. Although the VIF indicates a moderate degree of multicollinearity, the tolerance value is greater than .1. Therefore, it can be assumed that the independent variables, job satisfaction and employee engagement, are not highly correlated with each other, and no violation of the multicollinearity assumption was evident.

Inferential Statistical Analysis

A multiple linear regression analysis, $\alpha = .05$ (two-tailed), was conducted to examine the efficacy of employee engagement and job satisfaction in predicting employee performance. The independent variables included in the model were employee engagement and job satisfaction. The dependent variable was employee performance. The null hypothesis (H_0) was: There is no statistically significant relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. The alternative hypothesis (H_1) was: There is a statistically significant relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. Preliminary analyses were conducted to assess whether the assumptions of multicollinearity, outliers,

normality, linearity, homoscedasticity, and independence of residuals were met; no serious violations were noted (see *Tests of Assumptions*). The model was able to significantly predict employee performance: $F(2,97) = 43.836, p < .001, R^2 = .475$.

The R^2 (.475) value indicated that approximately 47.5% of the variations in employee performance are accounted for by the linear combination of the predictor variables (employee engagement and job satisfaction). In the final model, the independent variable employee engagement was statistically significant ($t = 3.594, p < .001, \beta = .504$), accounting for a higher contribution to the model than job satisfaction based on the β values. Job satisfaction was not significant ($t = 1.788, p > .05, \beta = .225$). The final predictive equation was: Employee Performance = 1.113 + .225 (Employee Satisfaction) + .504 (Employee Engagement).

Cronbach's alpha is used to estimate variance between survey responses to determine consistency (Menon et al., 2021). Cronbach's alpha assesses how one or more items achieve validity. Values greater than .9 are considered excellent, .7 are acceptable, .6 is questionable, and any value less than .5 is unacceptable (Menon et al., 2021). The Cronbach's alpha was measured for each scale used in this study. The Cronbach's alpha for employee engagement, which includes 15 questions, was .965. The Cronbach's alpha for job satisfaction was .877, which included four questions, and the Cronbach's alpha for employee performance was .847, which included three questions. Based on Cronbach's alpha values, each scale had a high level of internal consistency (Menon et al., 2021). I also conducted a factor analysis to determine the relationship between the items that make up each variable. The Correlation Matrix Determinant for this study was .161 and a

p -value = $< .001$ for each independent variable. A Kaiser- Meyer-Olkin (KMO) = .705 and Bartlett's Test p -value = $< .001$, confirming the validity and reliability of the measures used and the results (Flores & Ocana, 2022).

SPSS was also used to determine the Pearson Correlation Coefficient, which measures dependency between two variables (Chen & Wu, 2014; Green & Salkind, 2017). The Pearson Correlation Coefficient values range between -1 and 1, representing a negative to a positive relationship. Employee performance had a .676 relationship with employee engagement and a .636 relationship with employee satisfaction indicating a strong positive relationship.

Model Fitting

The multiple correlation coefficient was used to determine whether the multiple regression model was a good fit for the data. The multiple correlation coefficient (R) is the Pearson coefficient between the predicted values and the actual values of the dependent variable. R measures the strength of the linear correlation between the independent and dependent variables. The measure ranges from 0 to 1, with the linear association being stronger as the value is closer to 1 and a perfectly linear association at 1. The R value is a measure of strength and can indicate the goodness of fit with a value ranging from 0 to 1 (Laerd, 2015). The R value in this study was .689, which means a strong positive linear association.

The coefficient of determination (R^2) indicates the proportion of variance in the dependent variable explained by the independent variable. The adjusted R^2 value provides a value that would be expected in the population and an estimate of the effect size and

assesses the overall model fit. In this study, $R^2 = .475$ with an adjusted R^2 of .464 indicates that approximately 47.5% of the variability of the dependent variable is explained by the addition of both independent variables, as shown in Table 5.

Table 5

Multiple Regression Model Summary

Model Summary ^b					
Model	R	R ²	Adjusted R ²	SE of the Estimate	Durbin-Watson
1	.689 ^a	.475	.464	.63370	1.891

a. Predictors: (Constant), Global Satisfaction Mean, Employee Engagement Index Mean

b. Dependent Variable: Performance Mean

Statistical Significance of the Model

Table 6 is the ANOVA table showing the model's statistical significance. As shown in Table 6, $p < .001$, which indicates a statistically significant result. This result suggests that the overall model is better at predicting the dependent variable than the mean model and is a statistically significantly better fit to the data (Habiger, 2015; Turhan, 2020). Therefore, employee engagement and job satisfaction statistically and significantly predicted employee performance, $F(2, 97) = 43.836, p < .001$.

The R^2 (.475) value indicated that approximately 47.5% of variations in employee performance are accounted for by the linear combination of the predictor variables (employee engagement and job satisfaction). The R^2 (.475) value indicated that approximately 47.5% of the variation in employee performance is accounted for by the linear combination of the predictor variables (employee engagement and job satisfaction). In the final model, the independent variable employee engagement was statistically

significant ($t = 3.594, p < .001, \beta = .504$), accounting for a higher contribution to the model than job satisfaction based on the β values. Job satisfaction was not significant ($t = 1.788, p > .05, \beta = .225$). The final predictive equation was: Employee Performance = $1.113 + .225$ (Employee Satisfaction) + $.504$ (Employee Engagement).

Table 6*ANOVA Summary*

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.207	2	17.604	43.836	<.001 ^b
	Residual	38.953	97	.402		
	Total	74.160	99			

a. Dependent Variable: Performance Mean

b. Predictors: (Constant), Global Satisfaction Mean, Employee Engagement Index Mean

Table 7*Coefficients*

Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B			Correlations		Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Tolerance	VIF	
	(Constant)	1.113	.323		3.442	<.001	.471	1.755				
Employee Engagement	.504	.140	.478	3.594	<.001	.226	.782	.676	.343	.264	.306	3.269
Job Satisfaction	.225	.126	.238	1.788	.077	-.025	.474	.636	.179	.132	.306	3.269

a. Dependent Variable: PerformanceMean

Employee Engagement

The slope coefficient for employee engagement was .504, indicating that for each 1-point increase for employee engagement, employee performance increases by

approximately .504. Thus, employee performance increases as employee engagement increases. The squared semi-partial coefficient (sr^2) is an estimate of how much of the variance of the dependent variable is predicted by independent variables (Green & Salkind, 2017). The sr^2 value for employee engagement (independent variable) is .343, indicating that 34.3% of the variance in employee performance (dependent variable) is accounted for by employee engagement when job satisfaction (independent variable) is controlled.

Job Satisfaction

The slope coefficient for job satisfaction was .225, indicating that for each 1-point increase in job satisfaction, employee performance increases by approximately .225. Thus, employee performance increases as job satisfaction increases. The sr^2 value for job satisfaction is .179, indicating that 17.9% of the variance in employee performance is accounted for by job satisfaction when employee engagement is controlled. When employee engagement isn't controlled, the sr^2 value for job satisfaction is .636, indicating that when employee engagement is not controlled, job satisfaction accounts for 63.6% of the variance of performance is accounted for by job satisfaction.

Partial Correlations

Partial correlations measure the strength and direction of a linear relationship between two continuous variables while controlling for another variable (Li & Wiedermann, 2020). Although the relationship between job satisfaction was not significant, a positive correlation between job satisfaction and employee performance was still identified. Furthermore, Table 8 shows a statistically significant relationship

between job satisfaction and employee engagement. A partial correlation was used to determine how job satisfaction results in increased employee performance, with employee engagement being the control variable. As shown in Table 8, the correlation between job satisfaction and employee performance ($r = .636, p < .001$) is statistically significant when employee engagement is not controlled. However, when employee engagement is controlled, the correlation between job satisfaction and employee performance ($r = .179, p = .077$) becomes statistically insignificant, indicating that employee engagement is a mediating variable. Mediating variables are caused by the independent variables and explain job satisfaction's role in influencing employee performance.

Table 8

Correlations of Study Variables While Controlling for Employee Engagement

Control Variables			Employee Performance	Job Satisfaction	Employee Engagement
-none ^a	Employee Performance	Correlation	1.000	.636	.676
		Significance (2-tailed)	.	<.001	<.001
		df	0	98	98
	Job Satisfaction	Correlation	.636	1.000	.833
		Significance (2-tailed)	<.001	.	<.001
		df	98	0	98
	Employee Engagement	Correlation	.676	.833	1.000
		Significance (2-tailed)	<.001	<.001	.
		df	98	98	0
Employee Engagement	Employee Performance	Correlation	1.000	.179	
		Significance (2-tailed)	.	.077	
		df	0	97	
	Job Satisfaction	Correlation	.179	1.000	
		Significance (2-tailed)	.077	.	
		df	97	0	

a. Cells contain zero-order (Pearson) correlations.

Sobel Test for Mediation

The Sobel test determines whether a variable mediates the effect of independent variables on dependent variables (Neihsel, 2018). A mediator variable dominates the significant relationship between the independent and dependent variables. The Sobel test statistic was conducted to determine whether employee engagement (independent variable) mediates the effect of job satisfaction (independent variable) on employee performance (dependent variable). The Sobel test statistic was determined by using the following formula:

$$z = (ab) / \sqrt{(b^2 SE_a^2) + (a^2 SE_b^2)}$$

$$z = (.747 * .504) / \sqrt{((.504^2)(.050^2)) + ((.747^2)(.140^2))}$$

$$z = (.376) / \sqrt{((.254016)(.0025)) + ((.558009)(.0196))}$$

$$z = (.376) / \sqrt{(.00063504) + (.0109369764)}$$

$$z = (.376) / \sqrt{(.0115720164)}$$

$$z = (.376) / (.1075)$$

$$z = 3.5$$

The final p -value is $p = (1 - .99977)(2) = .00046$. It can be determined that the mediation is significant via the Sobel Test as $p < .05$. Essentially, the relationship between job satisfaction (independent variable) and employee performance (dependent variable) is mediated by employee engagement (independent variable).

Frequency Tests

Frequency tests were conducted to determine how often specific answers were given for the particular questions that make up the dependent and independent variables.

Tables 9-11 include the frequency test findings.

Table 9*Analysis of Response Frequencies on Employee Engagement*

Question	Response	Frequency	Percent
3. I feel encouraged to come up with new and better ways of doing things.	Strongly Disagree	7	7.0
	Disagree	8	8.0
	Neither Agree nor Disagree	13	13.0
	Agree	38	38.0
	Strongly Agree	34	34.0
4. My work gives me a feeling of personal accomplishment.	Strongly Disagree	3	3.0
	Disagree	1	1.0
	Neither Agree nor Disagree	13	13.0
	Agree	47	47.0
	Strongly Agree	36	36.0
6. I know what is expected of me on the job.	Strongly Disagree	4	4.0
	Neither Agree nor Disagree	9	9.0
	Agree	46	46.0
	Strongly Agree	41	41.0
	Strongly Disagree	5	5.0
11. My talents are used well in the workplace.	Disagree	9	9.0
	Neither Agree nor Disagree	11	11.0
	Agree	49	49.0
	Strongly Agree	26	26.0
	Strongly Disagree	1	1.0
12. I know how my work relates to the agency's goals.	Disagree	5	5.0
	Neither Agree nor Disagree	2	2.0
	Agree	48	48.0
	Strongly Agree	44	44.0
	Strongly Disagree	5	5.0
47. Supervisors in my work unit support employee development.	Disagree	4	4.0
	Neither Agree nor Disagree	8	8.0
	Agree	45	45.0
	Strongly Agree	38	38.0
	Strongly Disagree	5	5.0

(table continues)

Question	Response	Frequency	Percent
48. My supervisor listens to what I have to say.	Strongly Disagree	3	3.0
	Disagree	5	5.0
	Neither Agree nor Disagree	5	5.0
	Agree	39	39.0
	Strongly Agree	48	48.0
49. My supervisor treats me with respect.	Strongly Disagree	2	2.0
	Disagree	3	3.0
	Neither Agree nor Disagree	4	4.0
	Agree	38	38.0
	Strongly Agree	53	53.0
51. I have trust and confidence in my supervisor.	Strongly Disagree	4	4.0
	Disagree	6	6.0
	Neither Agree nor Disagree	8	8.0
	Agree	30	30.0
	Strongly Agree	52	52.0
52. Overall, how good a job do you feel is being done by your immediate supervisor?	Very Poor	4	4.0
	Poor	3	3.0
	Fair	7	7.0
	Good	39	39.0
	Very Good	47	47.0
53. In my organization, senior leaders generate high levels of motivation and commitment in the workforce.	Strongly Disagree	9	9.0
	Disagree	7	7.0
	Neither Agree nor Disagree	12	12.0
	Agree	48	48.0
	Strongly Agree	24	24.0
54. My organization's senior leaders maintain high standards of honesty and integrity	Strongly Disagree	7	7.0
	Disagree	4	4.0
	Neither Agree nor Disagree	13	13.0
	Agree	42	42.0
	Strongly Agree	34	34.0
56. Managers communicate the goals of the organization.	Strongly Disagree	6	6.0
	Disagree	7	7.0
	Neither Agree nor Disagree	6	6.0
	Agree	46	46.0
	Strongly Agree	35	35.0

(table continues)

Question	Response	Frequency	Percent
60. Overall, how good a job do you feel is being done by the manager directly above your immediate supervisor?	Very Poor	5	5.0
	Poor	3	3.0
	Fair	14	14.0
	Good	36	36.0
	Very Good	42	42.0
61. I have a high level of respect for my organization's senior leaders.	Strongly Disagree	5	5.0
	Disagree	3	3.0
	Neither Agree nor Disagree	16	16.0
	Agree	40	40.0
	Strongly Agree	36	36.0

Table 10*Analysis of Response Frequencies for Job Satisfaction*

Question	Response	Frequency	Percent
40. I recommend my organization as a good place to work.	Strongly Disagree	5	5.0
	Disagree	5	5.0
	Neither Agree nor Disagree	10	10.0
	Agree	43	43.0
	Strongly Agree	37	37.0
69. Considering everything, how satisfied are you with your job?	Strongly Dissatisfied	3	3.0
	Dissatisfied	9	9.0
	Neither Satisfied nor Dissatisfied	6	6.0
	Satisfied	47	47.0
	Very Satisfied	35	35.0
70. Considering everything, how satisfied are you with your pay?	Strongly Dissatisfied	4	4.0
	Dissatisfied	13	13.0
	Neither Satisfied nor Dissatisfied	12	12.0
	Satisfied	46	46.0
	Very Satisfied	25	25.0
71. Considering everything, how satisfied are you with your organization?	Strongly Dissatisfied	4	4.0
	Dissatisfied	11	11.0
	Neither Satisfied nor Dissatisfied	7	7.0
	Satisfied	44	44.0
	Very Satisfied	34	34.0

Table 11*Analysis of Response Frequencies for Employee Performance*

Question	Response	Frequency	Percent
15. My performance appraisal is a fair reflection of my performance	Strongly Disagree	3	3.0
	Disagree	10	10.0
	Neither Agree nor Disagree	16	16.0
	Agree	34	34.0
	Strongly Agree	37	37.0
16. I am held accountable for achieving results.	Strongly Disagree	2	2.0
	Disagree	1	1.0
	Neither Agree nor Disagree	5	5.0
	Agree	50	50.0
	Strongly Agree	42	42.0
19. In my most recent performance appraisal, I understood what I had to do to be rated at different performance levels (for example, Fully Successful, Outstanding)	Strongly Disagree	4	4.0
	Disagree	7	7.0
	Neither Agree nor Disagree	13	13.0
	Agree	42	42.0
	Strongly Agree	34	34.0

Results and Conclusions of Data Analysis

A standard multiple linear regression analysis was run to examine if a statistically significant relationship existed between employee engagement, job satisfaction, and employee performance. The independent variables were employee engagement and job satisfaction. The dependent variable was job performance. The null hypothesis was there is no statistically significant relationship between employee engagement, job satisfaction, and employee performance. The alternative hypothesis was that there is a statistically significant relationship between employee engagement, job satisfaction, and employee performance. Assumptions of multicollinearity, normality, linearity, outliers, homoscedasticity, and independence of errors were tested to identify potential violations.

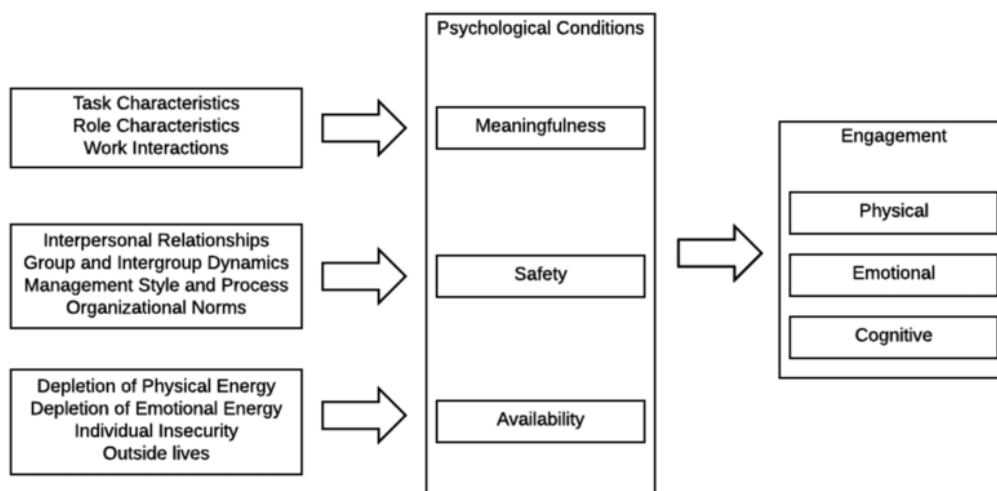
The tests of assumptions identified a possible violation of normality; however, I continued with the regression analysis as the sample size was large, and the residuals were close enough to normal to proceed with the analysis as multiple regression analysis is robust to non-normality (Kneif & Forstmeier, 2020).

The model was able to significantly predict employee performance: $F(2,97) = 43.836, p < .001$. Employee engagement is statistically significantly associated with employee performance in the federal government, which is in line with the alternative hypothesis. The correlation between job satisfaction was not statistically significantly associated with employee performance within the federal government; however, an analysis of partial correlations determined that employee engagement is a mediating variable between job satisfaction and employee performance. Furthermore, the Sobel Test for Mediation determined that the mediation between job satisfaction and employee performance via employee engagement was statistically significant.

The 2019 FEVS, Governmentwide Management Report, indicates that employee engagement and performance management are foundational to achieving strategic management for building and sustaining the 21st-century workforce. However, leaders within the federal government do not understand the relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. Furthermore, leaders in the federal government are unaware of the influencers of employee satisfaction and engagement or how to measure them correctly. According to the 2019 FEVS, the average score for employee engagement was 68%, as indicated by the EEI. The framework used for EEI assumes that organizational conditions

will lead to feelings of engagement. The FEVS assesses elements such as effective leadership, meaningful work, and learning opportunities (OPM, 2019). While these elements contribute to engagement, they are not directly correlated to employee engagement. These elements are more related to motivation which correlates with job satisfaction (Adil & Hamid, 2019; Amabile & Pratt, 2016; Byre et al., 2017; Herzberg et al., 1959).

Employee engagement is measured by the degree individuals immerse themselves in their work roles. Positions that allow employees to work autonomously, use their preferred skills and talents, and express themselves through their work result in increased performance as it will enable employees to contribute energy in physical, cognitive, and emotional aspects. As shown in Figure 7, Psychological engagement can occur in two dimensions, emotionally and cognitively, and engagement can be experienced in any one of these dimensions at any given time. Employees willing to exert more effort and go above and beyond are physically engaged, and those aware of the mission and their role are cognitively engaged. Meaningfulness, safety, and availability influence engagement (Balkrushna et al., 2018; Kahn, 1990; Risley, 2020; Tong et al., 2019; Tracey et al., 2014).

Figure 7*Employee Engagement Influencers*

Note. From “An Investigation of The Relationship Among Honesty-Humility, Authentic Leadership and Employee Engagement,” by Simone Barreto de Azevedo Meskelis, 2018. https://www.researchgate.net/figure/Kahn-1990-Model-of-Employee-Engagement_fig2_326262753

When employees clearly understand their role and can work autonomously while implementing creativity, they experience meaningfulness in their roles and are often more engaged. Additionally, those employees that find their jobs lack meaningfulness are more likely to be absent and leave their position altogether. Organizational leaders should monitor employee perceptions of meaningfulness as this can predict issues, such as gaps in skillsets, and identify training needs. Safety is determined by employees' perception of being able to express themselves without negative consequences. Employees' perceptions of safety are influenced by leadership, management style, and organizational norms.

For employees to feel safe, a learning environment must exist where employees can make mistakes and are provided an opportunity to learn. A safe environment also

encourages employees to develop innovative ideas and approaches because they are not afraid of negative repercussions. Increased safety also results in increased trust in leadership and consequently increases the influence leaders have over employees. Ultimately, a safe environment includes support while also providing clarity and reinforcement. Managers and leaders should develop methods of promoting a safe environment for employees. Lack of safety can result in a lack of performance because employees are unwilling to improve skills, inconsistent work quality, and unpredictable behaviors from employees. Lastly, knowledge sharing is influenced by perceptions of safety. Knowledge safety helps alleviate the costs associated with providing training, as knowledge sharing presents the opportunity to leverage resources. Ultimately, safety is critical for organizational performance as it contributes to individual performance by increasing employee confidence which is an influencer of availability.

Availability is driven by employees' confidence in their roles and is experienced when employees have physical, emotional, or psychological resources to personally engage at a particular moment (Kahn, 1990). This is relevant to both work and non-work experiences. Physical energy, emotional energy, individual insecurity, and issues in one's personal life all impact psychological availability (Ali et al., 2019; Bergdahl; 2020; Cao & Chen, 2019; Kahn, 1990; Kwan & Park, 2019). Employers can help improve availability by providing efficient resources to employees that can help alleviate stress, tensions, and insecurities. Ensuring that employees are not overworked is essential to availability. Leaders should be mindful of how much their employees are working. Noticing things such as employees may be working more hours, taking longer to

complete tasks, and inconsistency in the quality of work may indicate a lack of availability and may also predict employee burnout. Employees with psychological availability have the physical energy and resources to help others in the organization to accomplish extra tasks and requirements and the cognitive resources to help generate new ideas (Fletcher, 2019; Kahn, 1990; Kultalahti & Viitala, 2014; Nikolova et al., 2020; Smit et al., 2016; Upadyaya & Salmela-Aro, 2020), creating a more efficient work environment (Naujokaitien et al., 2015)

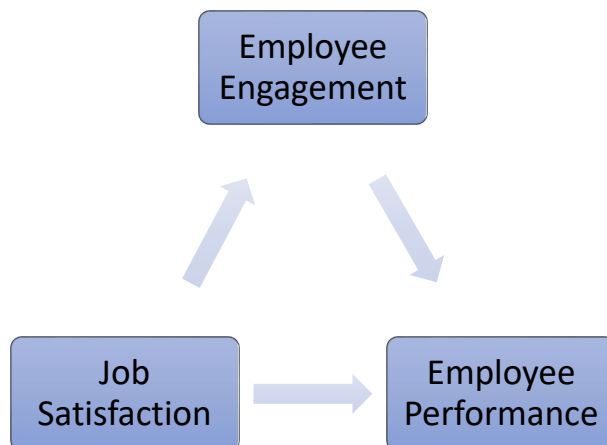
Without understanding what influences employee engagement, leaders in the federal government cannot adequately measure or identify areas of improvement. The elements included in the 2019 FEVS EEI do not capture the factors influencing employee engagement, supporting the indications that a prominent issue regarding engagement is the lack of a consistent definition which causes fundamental discrepancies. In this study, there is a statistically significant relationship between employee engagement and performance. Increased engagement can yield increased employee performance, while lack of engagement can lead to elevated stress, increased workloads, and eventually burnout. Disengaged employees may also struggle to complete tasks and not strive to advance or take on more challenging assignments. Failure to adequately measure engagement can lead to overworked employees, lack of innovative ideas, decreased efficiency, and an overall decrease in performance (Barden, 2017; Byrne, 2015; Dewing & McCormack, 2015; Gruman & Saks, 2011; Kular et al., 2008; St. Aimee, 2020). Engagement is the degree to which individuals immerse themselves in their work role, suggesting that people use varying degrees of themselves, physically, cognitively, and

emotionally in the workplace (Dahl., 2019; Gupta & Sharma, 2016; Kahn, 1990). This means that levels of engagement can change at any given time.

It is important to note that the findings of this study suggest that employee engagement serves as a mediator variable between job satisfaction and employee performance, as shown in Figure 8. Without employee engagement, job satisfaction does not significantly impact performance.

Figure 8

Mediator Variable



The Global Satisfaction Index (GSI) was used to represent job satisfaction in this study. The GSI assesses employees' satisfaction with their job, pay, organization, and willingness to recommend their organization as a good place to work (OPM, 2019). The GSI includes questions 40, 69, 70, and 71 (see Appendix B). The questions included indicate Hygiene Factors, and the data captured in the GSI does not actually reflect satisfaction levels but instead levels of dissatisfaction. Furthermore, the FEVS does identify questions that correlate to satisfaction; however, the possible responses to these

questions range from very satisfied to highly dissatisfied. Figure 9 depicts the influencers of satisfaction and dissatisfaction. Satisfaction and dissatisfaction are not opposites and should not be measured on the same continuum (Alshmemri et al., 2017; Herzberg, 1959).

Figure 9

Motivation and Hygiene Factors



Note. From “Two-Factor Theory of Herzberg” by Skazal Chandra Barman, 2015. <https://kazalbarman.wordpress.com/2015/06/22/herzberg-two-factor-theory/>

Job satisfaction describes the degree to which an employee is satisfied with their work, and the level of job satisfaction reflects their willingness to perform optimally. Job satisfaction is influenced by both intrinsic and extrinsic motivators known as Motivator Factors and Hygiene Factors, respectively. Motivator factors represent satisfaction levels and make up for positive attitudes for employee engagement and job satisfaction. An

increase in motivation factors increases an employee's job satisfaction, whereas a decrease results in no satisfaction.

Hygiene factors are extrinsic motivators and are referenced as dissatisfiers, and the factors measure levels of dissatisfaction. The observation that engagement increases as satisfaction decreases support the Herzberg Theory (1959) as satisfaction, as represented in this study, is determined by the use of Hygiene factors. Low hygiene factors result in increased levels of dissatisfaction, whereas positive hygiene factors result in reduced dissatisfaction. The opposite of dissatisfaction is not satisfaction, but instead no dissatisfaction (Alshmemri et al., 2017; Herzberg, 1959). As mentioned previously in the study, it should be noted that employees who do not experience hygiene factors are not necessarily unsatisfied with their job or role; however, they are experiencing increased levels of dissatisfaction (Yadav, 2019; Herzberg, 1959).

Job satisfaction and dissatisfaction are indicators of an employee's willingness to perform. High levels of satisfaction and low levels of dissatisfaction relate to employee engagement. The findings of this study suggest that employee engagement is a mediator variable, which supports both Kahn's engagement theory (1990) and the Herzberg two-factor theory (1959). Motivators increase satisfaction, and although motivation and engagement are two different concepts, they are still related. Employees' motivation levels can influence how easily they can be engaged (Azevedo et al., 2020; Adil & Hamid, 2019; Byrne et al., 2017; Gera et al., 2019). Employees with high satisfaction levels are willing to perform effectively in their role, complete tasks promptly, take less time off, and enjoy their work overall. Lower levels of satisfaction and increased

dissatisfaction may result in employees being less willing to perform most optimally in their role.

Additionally lower satisfaction and dissatisfaction can result in turnover.

Employee engagement is measured by how immersed an employee gets in their role.

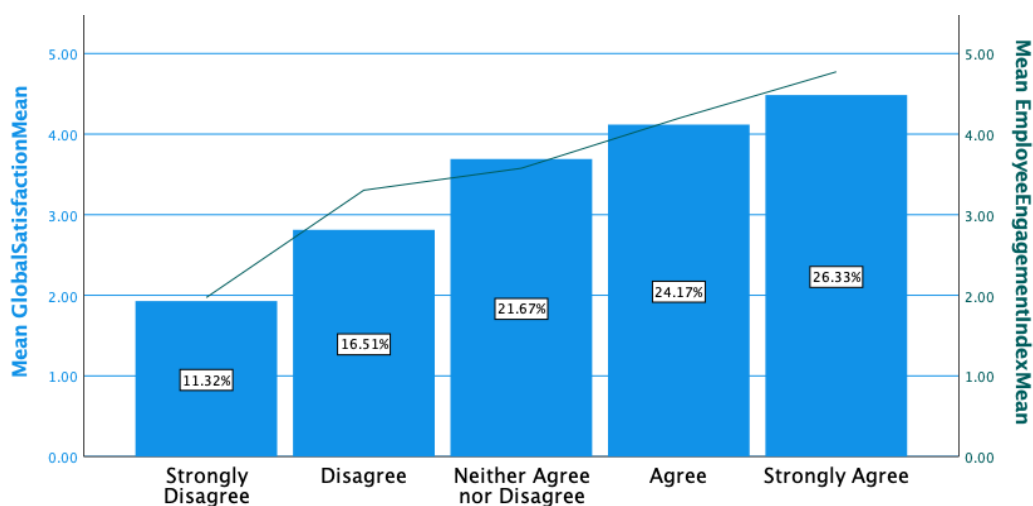
Suppose an employee is not satisfied or dissatisfied and is unwilling to perform optimally. In that case, it can be assumed that that employee will not be fully immersed in their role, indicating a lack of engagement.

Disengaged employees cost U.S. businesses approximately \$550 billion annually in lost productivity (Aslam et al., 2018; Kang & Busser, 2018). Furthermore, disengaged employees can lead to higher turnover rates, decreased quality of customer service, less efficient practices, and increased stress levels (Bhatt & Sharma, 2019; Gupta & Sharma, 2016; Jugdev et al., 2018; Risley, 2020; Seriki et al., 2020). When employees are engaged, they are willing to try innovative approaches, take on challenging work, and experience greater trust in the workplace. They ultimately increase employees' dedication to reaching organizational goals. Empirical research has shown that leaders who emphasize improving engagement and satisfaction increase employee performance and commitment (Concepcion, 2020; Gupta & Sharma, 2016; Popli & Rizvi, 2015). Sample questions related to employee intent to stay, motivation to come up with innovative solutions, and trust in the workplace were taken from the 2019 FEVS and used to compare the results against job satisfaction and employee engagement. The results are represented in Figures 10–13.

Figure 10 shows a positive relationship between employee satisfaction, engagement, and willingness to develop new ideas among Federal Government employees. Employees with increased satisfaction and engagement are more encouraged to create innovative systems and practices. The information presented positively contributes to performance as employees try to improve and work more efficiently.

Figure 10

I Feel Encouraged to Come up with New Ways of Doing Things

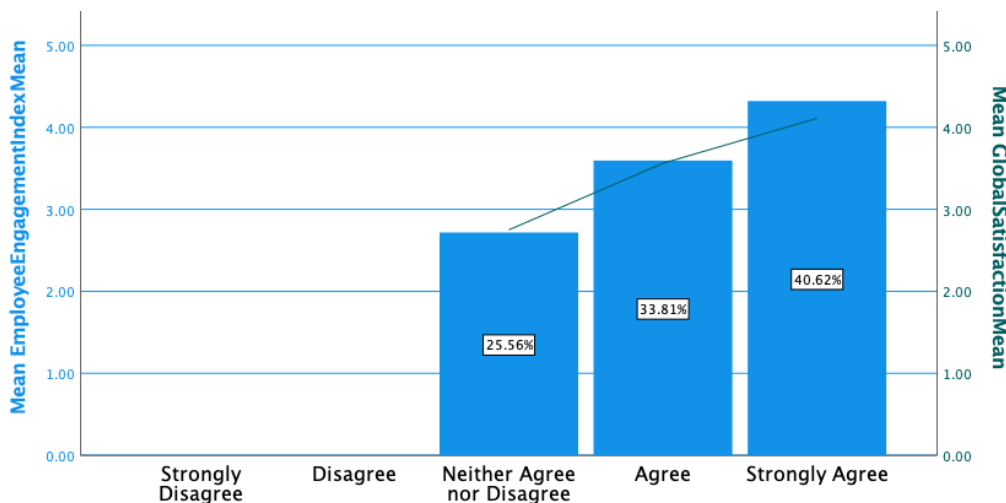


Note. The information in Figure 10 demonstrates that the more satisfied and engaged an employee is, the more willing and encouraged they are to come up with new innovative ideas. This supports the relationship between job satisfaction, employee engagement, and performance.

Figure 11 provides insight into employees' willingness to go above and beyond to meet agency needs.

Figure 11

When Needed I am Willing to Put in the Extra Effort to get a Job Done

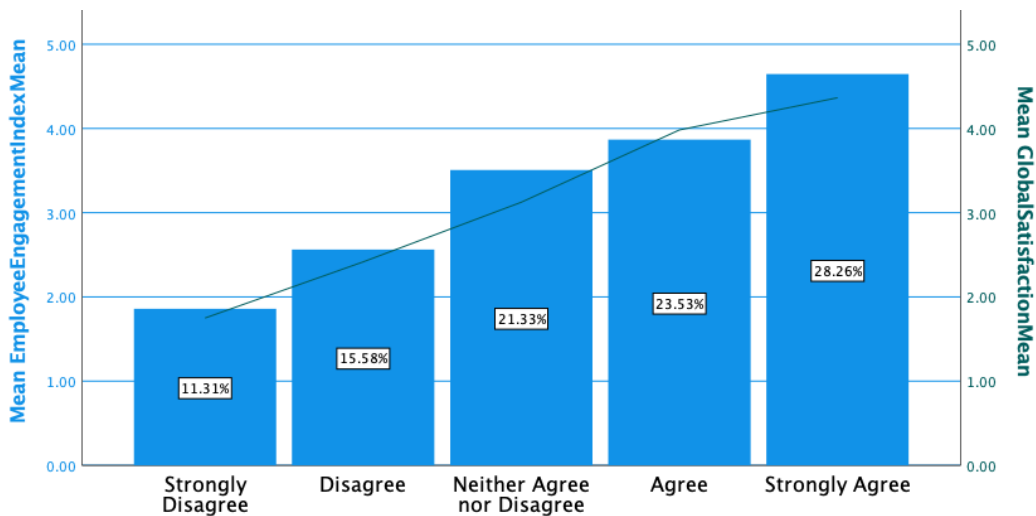


Note. As employees are more satisfied and engaged, the willingness to go above and beyond to complete tasks increases. This supports the findings of this study; the more satisfied employees are, the more willing they are to increase work efforts, which, in turn, increases employee engagement and employee performance.

Figure 12 provides information on the importance of developing trust between employees and supervisors. Employees with less trust in their leadership are less satisfied and less engaged. This presents the opportunity for a decrease in performance. Leaders in the federal government could use this information as an indicator of lacking performance and determine what is needed to increase trust between employees and supervisors.

Figure 12

I Have Trust and Confidence in My Supervisor

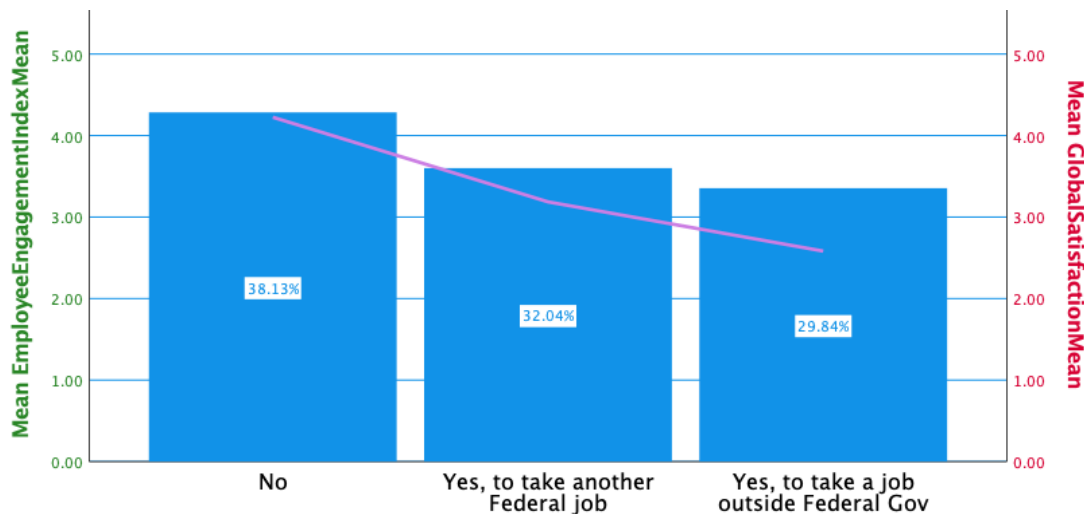


Note. Employees who demonstrate lower levels of trust and confidence in their supervisors are less engaged and less satisfied. The findings presented are supported by Kahn's Engagement theory (1990). Trust in leadership is a characteristic of a safe environment that influences engagement levels.

Figure 13 shows that the less satisfied and engaged employees are, the more likely they are to leave their employers.

Figure 13

Are You Considering Leaving your Organization and Why?



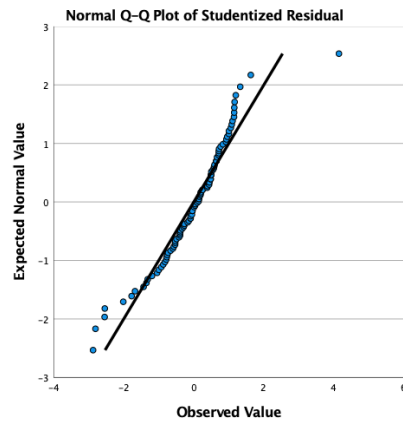
Note. Approximately 60% of employees are considering leaving their job. Employees with higher levels of satisfaction and engagement are more willing to stay with their organization. Those with moderate scores are looking to take another job within the federal government, and those employees looking to leave the federal government altogether represent the lower range of employee satisfaction and engagement.

Federal employers would benefit from understanding engagement and satisfaction's influence on intent to leave. Furthermore, by understanding the influences of employee engagement and job satisfaction, leaders can better identify the organizational issue impacting employee engagement and job satisfaction. These data can also predict performance as the agencies will suffer a loss in productivity, engagement, and overhead when an employee quits, potentially creating an overall cost of between 100% and 200% (Society for Human Resource Management [SHRM], 2019). Replacing employees who quit can cost an organization approximately six to nine months of their salary. Ultimately, job satisfaction and employee engagement impact employee performance, impacting organizational performance.

The results of the multiple linear regression show a p-value less than .05 showing a statistically significant relationship between employee engagement (the independent variable) and employee performance (the dependent variable) in the federal government. Therefore, employee engagement and job satisfaction statistically significantly predicted employee performance: $F(2, 97) = 43.836, p < .0001, R^2 = .475$ with an adjusted $R^2 = .464$. The R^2 value indicated that employee engagement and job satisfaction explained approximately 47% of variations in employee performance are accounted for by the linear combination of the independent variables, employee engagement, and job satisfaction. Employee engagement was statistically significant ($t = 3.594, p < .001, \beta = .504$), accounting for a higher contribution to the model than job satisfaction ($t = 1.788, p > .05, \beta = .225$) based on the β value of .504. This value represents an approximate 50% variability of employee performance as opposed to job satisfaction which represents a 22% variability of employee performance. Job satisfaction was not significant ($t = 1.788, p > .05, \beta = .225$). As shown in Table 6, The residual degrees of freedom = 97 and the regression degree of freedom = 2. The sum of squares of the regression = 35.207, and the sum of squares for the residual = 38.953. I conducted a Q-Q plot of normality for job satisfaction, engagement, and employee performance. The diagonal line of the Q-Q plot represents normality within the data set, and the individual points represent the data results. The data should run in a straight diagonal line in a Q-Q normality plot with minimal deviation. The results are represented in Figures 14–17.

Figure 14

Normal Q-Q Plot of Studentized Residual

**Figure 15**

Q-Q Normality Plot of Employee Engagement

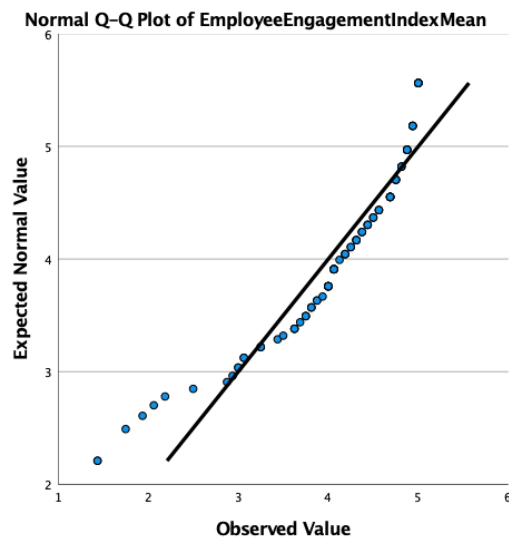
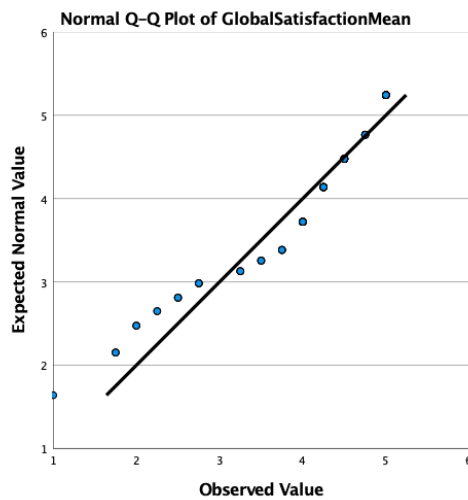
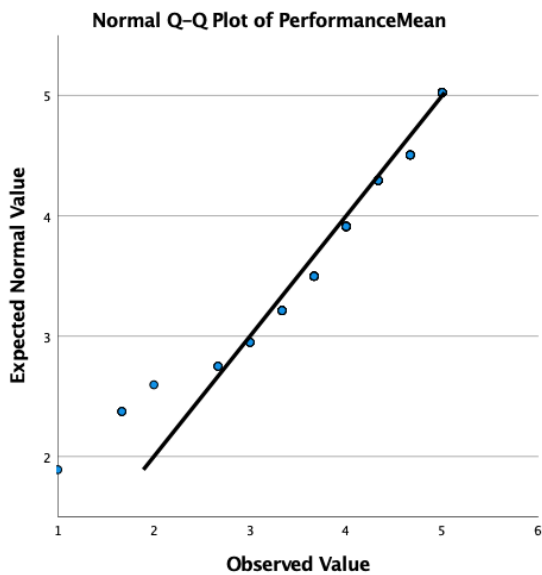


Figure 16

Q-Q Normality Plot of Employee Satisfaction

**Figure 17**

Q-Q Normality Plot of Employee Performance



Recommendations for Action

The results of this study determined that there is a statistically significant relationship between employee engagement and employee performance. Furthermore, it was found that job satisfaction, as measured by the GSI, did not directly influence employee performance; however, employee engagement serves as a mediating variable. Leaders in the federal government would benefit from researching what elements affect satisfaction and employee engagement and to what degree. As indicated previously in the study, the EEI does not adequately represent the factors influencing engagement. Instead, it includes questions that relate to satisfaction. Employee engagement is the degree to which employees immerse themselves in their work. It consists of a positive work-related state of mind characterized by dedication, vigor, and absorption (Gera et al., 2019; Schaufeli et al., 2016). Kahn's engagement theory (1990) states that meaningfulness, safety, and availability, influence employee engagement levels. With this understanding, leaders in the federal government can invest in strategies that positively influence meaningfulness, safety, and availability. Furthermore, the FEVS can be used to identify low-performing influencers.

Federal leaders could benefit by grouping together questions in the FEVS related to the factors that directly influence employee engagement. Assessing the influencers can allow leaders to identify the overarching issue that may be negatively impacting engagement and use that information to develop strategies or innovative ideas to address the issue. Additionally, focusing more on the influencers can ensure that leaders manage and accurately measure and monitor engagement.

Another recommendation for action would be to investigate the factors that influence satisfaction. Federal government leaders should understand that satisfaction and dissatisfaction are not opposites and, therefore, are not measured on the same continuum. As it stands, the GSI is comprised of questions related to Hygiene factors, which measure dissatisfaction. Similar to the suggestion for measuring employee engagement, leaders in the federal government would benefit by learning what factors are considered hygiene factors and what factors are considered motivators. By determining motivators and hygiene factors, leadership can decide if the lack of satisfaction is based on intrinsic or extrinsic factors.

Furthermore, understanding whether employees are not satisfied versus dissatisfied will give leadership insight into whether potential areas for improvement are related to job conditions or the work itself. Often if an issue arises regarding job satisfaction, employers will attempt to address the issue when employees complain about hygiene factors. Hygiene factors and motivator factors influence employee satisfaction differently. Motivation factors contribute to an organization's long-term success, whereas hygiene factors contribute to short-run success. Satisfying hygiene requirements is insufficient to improve an organization's productivity (Herzberg, 1987). Lack of hygiene and motivator factors can increase dissatisfaction; however, motivator factors do not decrease dissatisfaction but can increase and decrease satisfaction. Essentially, eliminating causes of dissatisfaction will not result in satisfied employees, as this will not create satisfaction, but instead, employees that have no dissatisfaction. Addressing hygiene factors does not enhance performance. Addressing hygiene factors without

addressing or improving motivators will calm the workforce but will not motivate them to improve performance.

To motivate employees to improve performance, employers must create conditions for satisfaction. Focusing on areas that contribute to job enrichment will make employees more willing to perform efficiently and go above and beyond their duties. Those employees with no dissatisfaction are not likely to overperform but will perform at the basic maintenance level. The FEVS can be used to identify which factors are lacking. Identifying the lacking factors will allow leaders to utilize resources to address the causes of lowered satisfaction adequately.

Highly satisfied employees are approximately 18% more productive than those with less satisfaction, which positively impacts performance. Employees with high satisfaction levels are more inclined to be dedicated to their organization and are less likely to leave their jobs, resulting in organizations retaining quality employees. By increasing satisfaction levels, employees will be more likely to develop innovative strategies. They will be willing to be involved in operations necessary to meet the organization's mission and goals—increased satisfaction results in increased productivity, output, and optimal performance. Alternatively, increased levels of dissatisfaction may result in decreased output. Increased dissatisfaction and low motivation levels result in slowed productivity, reduced output, and declining quality of work. Furthermore, lower levels of satisfaction result in decreased willingness to improve knowledge or go beyond the minimal expectations of the job. Increased willingness, in turn, positively influences

employee engagement—increased engagement results in overall increased employee performance.

It is important to note that satisfaction has a positive relationship with engagement. More so, satisfaction contributes to employees' intentions to leave and their willingness to immerse themselves in their work roles. Although this study determined a statistically significant relationship between employee engagement and performance, it is vital to understand job satisfaction's influence on employee engagement. The federal government has put a lot of emphasis on employee engagement and performance. Leaders should realize that satisfaction influences engagement levels and emphasize the importance of motivators and hygiene factors relating to job satisfaction. Without job satisfaction, employees will perform at minimally successful or below minimally successful levels. Satisfaction sets the baseline for performance levels and determines employees' willingness to become more engaged. By improving hygiene and motivator factors, leaders can create an environment where employees have positive attitudes and are happy with their work, which will increase the degree to which employees will immerse themselves in their work roles.

Communication Plan

I plan to share these findings with leaders within the federal government to help create more effective strategies to measure and improve employee engagement and job satisfaction as it relates to employee performance. I will also look to communicate the findings of this study through conferences, leadership seminars, and other public means.

Lastly, I will seek out opportunities to share this information with leaders in the private sector as the implications of this study are not necessarily industry specific.

Social Change Impact

Employee performance directly impacts organizational performance. To perform efficiently, employees must have the proper resources to complete their jobs successfully. Determining how to improve the influencers of employee performance can directly improve employee performance and results in overall organizational performance (Paais & Pattiruhu, 2020; Tarmidi & Arsjah, 2019). Job satisfaction and employee engagement are both factors that influence employee performance. Employees that have increased job satisfaction are more motivated to improve their skills. Increased capabilities result in employees improving decision-making skills, creating more innovative ways to complete job tasks, becoming more efficient at completing tasks, and acquiring additional skills (Carvalho et al., 2020; Forjan et al., 2020; Kleine et al., 2019). Motivator factors and Hygiene factors are what increase job satisfaction. Highly motivated employees are more likely to share knowledge, improve performance, and increase their effort to help the organization to meet its goals (Bhatt & Sharma, 2019; Byrne et al., 2017; Hejjas et al., 2019; Lee & Rhee, 2019; Paulo da Silva & Shinyashiki, 2014).

Additionally, employees who experience low or no levels of dissatisfaction are more likely to stay at their job, reducing turnover costs in an organization. These employees are more trusting of their leadership. By focusing on job satisfaction and the factors that influence job satisfaction, employers could improve employee performance within the workforce.

In addition to focusing on job satisfaction, employers should focus on employee engagement to improve employee performance. Disengaged employees display incomplete role performances and show decreased effort in completing tasks, often performing on autopilot. Job resources, management support, efficient technology and equipment, and professional development opportunities influence engagement levels. Disengaged employees cost U.S. businesses approximately \$550 billion annually in lost productivity (Aslam et al., 2018; Kang & Busser, 2018). Alternatively, highly engaged employees tend to take fewer leave days, work approximately an additional week per week, and are 69% less likely to leave their jobs within the next six months (Reece et al., 2018). When employees feel they are receiving a return on investment, they are more likely to offer their resources and perform effectively in their role. Employees with higher engagement are more likely to provide additional time and dedication, share ideas willingly, and utilize creativity to stimulate innovation.

This study provided evidence of a relationship between job satisfaction, employee engagement, and employee performance, finding that the relationship between employee engagement and employee performance is statistically significant amongst employees within the federal government. This study identified the importance of understanding the relationship between employee engagement, job satisfaction, and employee performance. Furthermore, this study provided insight into what factors influence job satisfaction and employee engagement. Implications for social change are that managers can use this information to assess areas of improvement better when trying to increase employee performance. The information provided in this study can be used to identify areas for

improvement at the team and organizational levels. Furthermore, leaders can use the information in this study to develop programs and strategies that more accurately assess and measure employee engagement and job satisfaction in the workforce. A more accurate measure will help organizations focus resources and efforts to address potential issues adequately.

Increased engagement and job satisfaction result in lower turnover, increased quality of work, reduced costs, and knowledge sharing that improves team and organizational performance. This study is essential as it provides insight into the information captured in the FEVS and suggestions on how to interpret better the data provided in the FEVS. Additionally, insight is provided on demographics such as tenure, education, supervisory status, minority status, and the correlation between those individuals and employee engagement and job satisfaction. The findings of this study can assist leaders in the federal government in identifying gaps in engagement and satisfaction based on demographics. The results of this study can also be applied to other organizations where leaders are looking to increase employee performance.

The purpose of this study was to examine the relationship between employee engagement, job satisfaction, and employee performance among employees within the federal government. Based on the 2019 FEVS data ($N=100$), the study revealed a positive relationship between employee engagement, job satisfaction, and performance. The recommendations for leaders within the federal government are: (a) determine motivational and hygiene factors, (b) determine influencers that improve the physical, emotional, and cognitive factors of employee engagement, and (c) address issues that

could impact job satisfaction and engagement, and (d) redesign or develop a more accurate measurement of employee engagement and job satisfaction with FEVS data by regrouping questions that represent motivators, hygiene factors, and employee engagement. These actions could contribute to increased employee performance in the federal government.

Skills and Competencies

To create an environment conducive to impacting employee engagement and job satisfaction, leaders in the federal government require specific skills and competencies. Skills and competencies needed include leadership skills and competencies (Sparrow, 2015), technological skills, business acumen, emotional intelligence, problem-solving, and collaboration (Mcdonnel & Sikander, 2017). Employee-focused approaches can lead to a more engaged and satisfied workforce as this approach considers the needs of the individual. Understanding how to work with others and understand and communicate with others are essential skills when developing methods and strategies to improve motivators for employees. Leadership skills are imperative as effective leadership influences others to follow the organization's vision; however, this results from the trust. Technological skills are needed to measure performance, engagement, and satisfaction effectively. This study highlights skills and competencies that focus on employee engagement and job satisfaction, and they can impact employee performance among employees within the federal government.

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Appendix A: Secondary Dataset Sources

United States Office of Personnel Management (OPM) Federal Employment Viewpoint Survey (FEVS) <https://www.opm.gov/fevs/reports/governmentwide-reports/governmentwide-management-report/governmentwide-report/2019/2019-governmentwide-management-report.pdf>

Appendix B: Employee Engagement Index, Global Satisfaction Index, Employee
Performance

Table B1*Employee Engagement Index*

Item Number	FEVS Question
3	I feel encouraged to come up with new and better ways of doing things.
4	My work gives me a feeling of personal accomplishment.
6	I know what is expected of me on the job.
11	My talents are used well in the workplace.
12	I know how my work relates to the agency's goals and priorities.
47	Supervisors in my work unit support employee development.
48	My supervisor listens to what I have to say.
49	My supervisor treats me with respect.
51	I have trust and confidence in my supervisor.
52	Overall, how good a job do you feel is being done by your immediate supervisor?
53	In my organization, senior leaders generate high levels of motivation and commitment in the workforce.
54	My organization's senior leaders maintain high standards of honesty and integrity.
56	Managers communicate the goals and priorities of the organization.
60	Overall, how good a job do you feel is being done by the manager directly above your immediate supervisor?
61	I have a high level of respect for my organization's senior leaders.

Note. The Employee Engagement Index is a measure of the conditions conducive to engagement. The index consists of 15 items grouped into three subindices: Leaders Lead, Supervisors, and Intrinsic Work Experience (FEVS, 2019).

Table B2*Global Satisfaction Index*

Item Number	FEVS Question
40	I recommend my organization as a good place to work.
69	Considering everything, how satisfied are you with your job?
70	Considering everything, how satisfied are you with your pay?
71	Considering everything, how satisfied are you with your organization?

Note. Global Satisfaction Index is a combination of four items assessing employees' satisfaction with their job, their pay, and their organization, plus their willingness to recommend their organization as a good place to work (FEVS, 2019).

Table B3*Employee Performance Driver*

Item Number	FEVS Question
15	My performance appraisal is a fair reflection of my performance
16	I am held accountable for achieving results
19	In my most recent performance appraisal, I understood what I had to do to be rated at the next performance level

Note. Employee performance is being measured using a composite variable consisting of items 15,16, and 19 in the 2019 FEVS, that make up the Employee Performance Driver (FEVS, 2019).