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Examining Turnover Intent Among Young Federal Employees: Organizational Support, Satisfaction, Psychological Safety, and Burnout Interplay

Lyndsey Tuft
Walden University

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Walden University

College of Management and Human Potential

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Lyndsey Tuft

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Walden University
2024

Abstract

Examining Turnover Intent Among Young Federal Employees: Organizational Support,
Satisfaction, Psychological Safety, and Burnout Interplay

by

Lyndsey Tuft

MPhil, Walden University, 2023

MFA, Full Sail University, 2010

BLS, Barry University, 2008

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Industrial and Organizational Psychology

Walden University

November 2024

Abstract

This study examined factors influencing turnover intentions among federal employees under 40 years old, focusing on perceived organizational support, employee satisfaction, psychological safety, and burnout. The theory that grounded this study included the organizational support theory. Structural equation modeling was applied to archival 2022 Office of Personnel Management's Federal Employee Viewpoint Survey data. Key results revealed strong positive associations between perceived organizational support and employee satisfaction, with both factors significantly negatively related to turnover intentions. Psychological safety and burnout showed statistically significant but small moderation effects, limited by model fit issues and multicollinearity. Unexpectedly, burnout positively associated with employee satisfaction and negatively with turnover intentions, contrary to theoretical expectations. These findings underscore the importance of organizational support and employee satisfaction in retaining younger federal employees. They also highlight potential limitations in current measurements of burnout and psychological safety within the OPM FEVS. Recommendations included refining construct measurements, conducting longitudinal studies, and exploring agency-specific variations. This research contributes to positive social change by potentially informing strategies to enhance job attitudes and reduce turnover among young federal employees. Improved retention could lead to a more stable, experienced federal workforce, potentially enhancing public service delivery and increasing the attractiveness of federal careers to younger generations. These outcomes may ultimately contribute to more effective and efficient government operations, benefiting society at large.

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Dedication

To my amazing husband Mike, your unwavering love, support, and encouragement have been the steady foundation that allowed me to pursue this academic journey. Thank you for always believing in me, even when the path seemed arduous. This achievement would not have been possible without your partnership and the sacrifices you made to help me realize this dream. To my amazing children Parker, Sabrina, and Adelayde, you are the brightest lights that illuminate my life with purpose. Your patience, understanding, and cheerful resilience inspired me to persevere through the many challenges (e.g., two OCONUS moves, an emergency plane landing, COVID-19, natural disasters, military family life, concurrent internships, and full-time employment). This work is as much a testament to your incredible spirits as it is to my academic efforts. May it serve as a reminder that with determination and the uplifting love of family, any goal can be achieved. I am forever grateful for each of you and the immeasurable joy you bring to my life. This milestone is ours to celebrate together!

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Table of Contents

List of Tables	v
List of Figures	vi
Chapter 1: Introduction to the Study.....	1
Background.....	2
Perceived Organizational Support	2
Employee Satisfaction	4
Psychological Safety	4
Employee Burnout	5
Problem Statement	6
Purpose of the Study	7
Research Questions and Hypotheses	7
Theoretical Framework.....	8
OST	8
JD-R Model.....	9
Nature of the Study	10
Definitions.....	12
Assumptions.....	13
Scope and Delimitations	13
Limitations	14
Significance.....	14
Summary	15

Chapter 2: Literature Review	16
Literature Search Strategy.....	16
Theoretical Framework.....	17
OST.	17
JD-R Model.....	20
Literature Review of the Constructs	21
Perceived Organizational Support	22
Employee Satisfaction	24
Turnover.....	26
Psychological Safety.....	29
Burnout	32
Summary and Conclusions	35
Chapter 3: Research Method.....	37
Research Design and Rationale	37
Methodology.....	38
Population	38
Archival Data Collection, Sampling, and Access	39
Instrumentation	42
Operationalization of Constructs	44
Data Analysis Plan.....	49
RQ 1	52
RQ 2	53

RQ 3	54
Threats to Validity	56
Threats to External Validity	56
Threats to Internal Validity	57
Threats to Construct Validity	58
Ethical Procedures	59
Summary	59
Chapter 4: Results	61
Archival Data Collection and Demographics	61
Measurement Model Generation.....	63
Main Analysis Results	68
Sample Demographics	68
Model Testing of Research Question 1	69
Model Testing of Research Question 2.....	75
Model Testing of Research Question 3.....	84
Summary	91
Chapter 5: Discussion, Conclusions, and Recommendations	94
Interpretation of the Findings.....	95
Limitations	97
Recommendations.....	99
Implications.....	100
Conclusion	103

References.....	104
Appendix A: Accessing the 2022 OPM FEVS Public Release Data File.....	125
Appendix B: Measurement Model Generation Observed Variables Results.....	126
Appendix C: Factor Loadings for H2a, H2b, and H2c Measurement Models	127
Appendix D: Factor Loadings for H3c Measurement Models.....	128

List of Tables

Table 1	<i>Sample Demographics for Measurement Model Generation.....</i>	62
Table 2	<i>Summary of CFA Results for Measurement Model Generation.....</i>	65
Table 3	<i>Summary of Single-Factor Model CFA and Four-Factor Model CFA.....</i>	66
Table 4	<i>Sample Demographics for Main Model Analysis.....</i>	69
Table 5	<i>Moderated Regression Results for Employee Satisfaction.....</i>	87
Table 6	<i>Moderated Regression Results for Turnover Intention</i>	89

List of Figures

Figure 1 <i>OPM Weighting Formulas for 2022 OPM FEVS</i>	49
Figure 2 <i>Diagram of the CFA for Measurement Model Generation</i>	51
Figure 3 <i>Diagram of SEM to Test H1a, H1b, and H1c</i>	52
Figure 4 <i>Diagram of SEM to Test H2a</i>	53
Figure 5 <i>Diagram of SEM to Test H2b</i>	54
Figure 6 <i>Diagram of SEM to Test H2c</i>	54
Figure 7 <i>Diagram of SEM to Test H3a</i>	55
Figure 8 <i>Diagram of SEM to Test H3b</i>	55
Figure 9 <i>Diagram of SEM to Test H3c</i>	56
Figure 10 <i>Final Generated Measurement Model</i>	67
Figure 11 <i>Path Diagram of Research Question 1 Results</i>	70
Figure 12 <i>Scatterplot for the Relationship Between Perceived Organizational Support and Employee Satisfaction</i>	73
Figure 13 <i>Boxplots for the Effects of Perceived Organizational Support and Employee Satisfaction on Respondents' Intention to Leave</i>	73
Figure 14 <i>Path Diagram of Perceived Organizational Support-Only Model</i>	74
Figure 15 <i>Path Diagram of Employee Satisfaction-Only Model</i>	74
Figure 16 <i>Structural Overview of Model for H2a</i>	76
Figure 17 <i>Moderation Results for H2a at the Latent Variable Level</i>	77
Figure 18 <i>Moderating Effect of Psychological Safety on the Relationship Between Perceived Organizational Support and Employee Satisfaction</i>	78

Figure 19 <i>Structural Overview of Model for H2b</i>	80
Figure 20 <i>Path Diagram of Perceived Organizational Support, Psychological Safety, and Turnover Intentions</i>	81
Figure 21 <i>Structural Overview of Model for H2c</i>	83
Figure 22 <i>Path Diagram of Employee Satisfaction, Psychological Safety, and Turnover Intentions</i>	84
Figure 23 <i>Structural Overview of Model for H3c</i>	91

Chapter 1: Introduction to the Study

Employee turnover costs organizations anywhere from 16–200% of spending on annual salaries depending on the education and experience required for the job (Abner, 2023). Fair wages and satisfaction with promotion opportunities have historically been key predictors of turnover intentions (Griffeth et al., 2000; Kang et al., 2021; Pitts et al., 2011; Wynen & Op de Beeck, 2014). However, recent research has found that pay and advancement potential have relatively small effect sizes on an employee's intention to leave the organization (Hur & Abner, 2023). These new findings require researchers and practitioners to explore other factors between organizations and employees that may reduce turnover.

Perceived organizational support is the extent to which an employee perceives that an organization cares about their well-being and values their contributions, and it has been found to have several relationships with turnover intent (Kurtessis et al., 2017; Zhong et al., 2016). Additionally, recent research has identified job exhaustion and job satisfaction as having large effects on turnover intent (Hur & Abner, 2023). Further, psychological safety has been found to mediate some relationships with turnover intent, such as burnout (Edmondson & Bransby, 2023; Edwards et al., 2021) and perceived supervisor support (Halliday et al., 2022). To be proactive and mitigate turnover before it becomes a firm intention, researchers and organizational practitioners may begin by better understanding the relationships with perceived organizational support, satisfaction, psychological safety, and employee burnout as they relate to turnover intentions. Therefore, this study investigated the relationships between perceived organizational

support, employee satisfaction, psychological safety, and burnout on employees' intentions to leave their organizations. This chapter outlines the study's scope, purpose, research questions, hypotheses, and limitations.

Background

In 2017, the federal government employed over 1.8 million non-seasonal, full-time individuals (Office of Personnel Management [OPM] Data Analysis Group, 2018b). According to the Bureau of Labor Statistics (2023), approximately 37,000 federal employees quit their jobs in the first 2 months of 2023. Considering the average annual salary for the executive branch and federal workforce was \$85,284 in 2017 (OPM Data Analysis Group, 2018b), and a conservative estimate of the cost to replace an employee is about 150% of their annual salary (Lavigna, 2021; McFeely & Wigert, 2019), quits in the first 2 months of 2023 alone may have cost the Federal Government over \$4.7 billion. Further, job opening rates have fallen in the last 2 years while the attrition rate has continued to rise to pre-pandemic levels (Bureau of Labor Statistics, 2023; Friedman, 2022). Additionally, this estimate does not include the indirect costs of turnover to the remaining workforce, such as increased workloads, loss of knowledge and talent, decreased morale, stressed client relationships, and more. This section provides a brief background on the factors of interest in this study as they may relate to turnover intentions, including perceived organizational support, satisfaction, psychological safety, and burnout. A more thorough review of the literature is offered in Chapter 2.

Perceived Organizational Support

Perceived organizational support was introduced in the mid-1980s as a lens to

understand better processes influencing an employee's commitment to their organization (Eisenberger et al., 1986). Levinson (1965) highlighted that employees tend to personify their organizations. That is, an employee may subconsciously attribute the actions of other employees, agents, or leaders of an organization to actions of the organization itself. Building on Levinson's insights, Eisenberger et al. (1986) noted that employees develop a perceived global level of how much the organization cares about their personal well-being and values their contributions from the personification of the organization. The perceived level of organizational support factors into a cost-benefit analysis and influences an employee's affective commitment to the organization and effort-to-outcome expectancies.

Several relationships have been identified within the extant research between perceived organizational support and turnover intent, such as mediating the role of servant leadership and turnover intent (Huning et al., 2020), promoting high job satisfaction and lower turnover (Maan et al., 2020), and negatively influencing direct turnover intentions (Kurtessis et al., 2017). Perceived organizational support has also been shown to increase extra-role behaviors within the workplace, trust in the organization, work-family balance, employee well-being, affective commitment, job performance, and self-efficacy, and it also promoted climates for positive psychological safety (Kurtessis et al., 2017; Rhoades et al., 2001; Zhong et al., 2016). Conversely, perceived organizational support has been shown to decrease counterproductive workplace outcomes such as absenteeism, stress, job insecurities, work-family conflict, burnout, and turnover intentions (Eisenberger et al., 1986; Eisenberger et al., 2020; Hngoi

et al., 2023; Kurtessis et al., 2017; Zhong et al., 2016). The following section explores some of these variables in more detail.

Employee Satisfaction

The academic and practical interest in job attitudes, specifically job satisfaction, has roots dating back to the 1930s but solidified as a construct primarily through the seminal works of Locke (Locke, 1969; Locke et al., 1986; Heimerl et al., 2020). Locke (1969) defined job satisfaction and dissatisfaction as a function of the perceived relationship between what an employee wants from their job and what they perceive it offers or entails. In other words, Locke posited that job satisfaction is more than a simple correlation between a feeling of task liking, for example, and successes achieved (i.e., correlation without explanation). Instead, job satisfaction describes a gratifying emotional state resulting from an employee's perspective that their job helps them achieve their values. On the other hand, dissatisfaction may lead to prolonged stress from the perception of dissonance with their job values and goals, potentially leading to increased intentions to leave the organization.

Psychological Safety

Psychological safety was first mentioned in organizational change research in the mid-1960s as a mechanism to make people feel secure and ready for, or capable of, change (Schein & Bennis, 1965). As the decades progressed, psychological safety was mentioned to help people overcome learning anxiety in the workplace, achieve shared goals, solve problems without excessive self-protection, and improve employee engagement (Edmondson & Bransby, 2023). Today, psychological safety has matured

into a theory with high agreement around construct definition. What is known from research in the last decade about psychological safety's predictors, moderations, and outcomes fall into four categorical themes around getting things done, fostering learning behaviors, improving the work experience, and leadership (Edmondson & Bransby, 2023).

Despite the maturity of the concept and psychological safety's predictive capabilities of a wide range of outcomes (e.g., creativity, performance, reporting, culture, affect), it is important to note the wide variability across organizational units and interpersonal climates that may change over time. There is still much to learn about the different contexts in which psychological safety may be further leveraged as a moderator to achieve desired results within challenging contexts. This study examined the moderating effects of psychological safety on perceived organizational support, employee satisfaction, and turnover intentions compared to burnout effects.

Employee Burnout

Burnout as a work construct was pioneered by Freudenberger (1974) within the context of volunteer staff in his therapeutic Free Clinic community movement during the 1970s. Freudenberger's observations of burnout included physical (e.g., exhaustion, fatigue, headaches, inability to shake a cold, sleeplessness) and behavioral signs (e.g., irritability, quick anger, difficulty regulating emotions, increased risk taking, drug seeking to relax). Freudenberger and Richelson (1980) defined burnout as "deplet[ing] oneself. To exhaust one's physical and mental resources. To wear oneself out by excessively striving to reach some unrealistic expectation imposed by oneself or by the

values of society” (p. 16). Depleting oneself at work could lead to adverse outcomes (e.g., dissatisfaction, absenteeism, turnover, organizational commitment). Over the years, burnout has been further defined to include three key dimensions (i.e., overwhelming exhaustion, feelings of cynicism and detachment, and a sense of ineffectiveness or lack of accomplishment in one’s work (Bakker et al., 2014; Heinemann & Heinemann, 2017; Hur & Abner, 2023; Maslach, 1978; Zhang et al., 2022)). Because it is imperative to improve knowledge of factors within the workplace as they relate to turnover so organizations can aspire to be proactive and mitigate turnover before it even becomes a firm intention, this study focused on the relationships between perceived organizational support, satisfaction, psychological safety, employee burnout, and turnover intentions.

Problem Statement

The problem addressed in this study was the need to understand the conditions that may help organizations mitigate employee turnover intentions. Researchers have called for future research to focus on better understanding the contributions of perceived organizational support to employee outcomes (Kurtessis et al., 2017). For example, perceived organizational support may positively influence employee well-being and satisfaction by lessening the perceived severity of stressors and meeting the emotional needs of employees during stressful times. Recent research underscores the significance of mitigating the effects of burnout, which significantly affects turnover intention (Hur & Abner, 2023; Rehman et al., 2020). In this study, I evaluated the significant influence of perceived organizational support and interactions of burnout and psychological safety on employee turnover intentions and satisfaction within the organization to inform better

conditions that may help organizations mitigate such adverse outcomes.

Purpose of the Study

The purpose of this study was to determine the extent to which perceived organizational support, employee satisfaction, psychological safety, and burnout are associated with turnover intentions among federal employees under 40. A quantitative, nonexperimental, correlational approach was utilized to evaluate the relative strengths of the relationships between the predictor variables, perceived organizational support and employee satisfaction, and their relative criterion variables, employee satisfaction and turnover intent. Further, I examined if the relationships vary based on the level of perceived psychological safety and burnout. Therefore, this study sought to evaluate the following research questions and hypotheses.

Research Questions and Hypotheses

I explored three research questions with three associated hypotheses each to meaningfully contribute to the gap in the extant literature.

RQ1: What is the relationship between perceived organizational support, employee satisfaction, and turnover intentions?

There exists a direct relationship between perceived organizational support and employee satisfaction (H1a) and turnover intention (H1b) and a direct relationship between employee satisfaction and turnover intention (H1c).

RQ2: Does psychological safety moderate the relationships between perceived organizational support, employee satisfaction, and turnover intentions?

Psychological safety moderates the relationships between perceived

organizational support and employee satisfaction (H2a), perceived organizational support and turnover intention (H2b), and employee satisfaction and turnover intention (H2c).

RQ3: Does burnout moderate the relationships between perceived organizational support, employee satisfaction, and turnover intentions?

Burnout moderates the relationships between perceived organizational support and employee satisfaction (H3a), perceived organizational support and turnover intention (H3b), and employee satisfaction and turnover intention (H3c).

Theoretical Framework

The theories and concepts that ground this study include the organizational support theory (OST; Eisenberger et al., 1986) and the job demands-resources (JD-R; Bakker et al., 2003; 2014) model to form a theoretical foundation to draw upon when researching relationships with perceived organizational support, satisfaction, and burnout. Psychological safety is a mature construct that no longer requires theoretical justification within organizational behavior (Edmondson & Bransby, 2023). A brief overview of each is provided in the following sections and expanded on in Chapter 2.

OST

The conceptual lens of OST informs that employees view an organization to some extent as a living being with purpose and intention (Eisenberger et al., 2020). Within OST, perceived organizational support is a generalized employee perception rather than focusing on specific instances and may be influenced by numerous organizational factors (e.g., supervisor/coworker behaviors, organizational policies, culture). Personifying the

organization enables employees to form perceived organizational support as a meaningful explanation for past treatment from the organization to help anticipate future treatment, thereby mediating the relationship between organizational factors and employee outcomes (e.g., satisfaction, engagement, turnover intentions).

Two theoretical perspectives contribute significantly to OST: social exchange theory and self-enhancement theory (Eisenberger et al., 1986, 2020). Social exchange theory assumes relationships are formed based on subjective cost-to-benefit analyses (Blau, 1964; Chernyak-Hai & Rabenu, 2018; Emerson, 1976). An employee may subjectively and even unconsciously weigh the cost-to-benefit perceptions of how well the organization supports them, how satisfied they are at work, and perceived psychological safety and burnout to drive their intentions to leave the organization. Additionally, OST invokes social exchange theory where employment is viewed as a tradeoff between effort and organizational loyalty (Kurtessis et al., 2017). Self-enhancement theory processes involve perceived organizational support fulfilling the employee's socioemotional needs (e.g., need for belonging, approval, esteem, emotional support) to increase identification with the organization (Eisenberger et al., 2020).

JD-R Model

Demerouti et al. (2001) developed the JD-R model drawn upon in this study to understand the relationships between burnout and satisfaction. The JD-R model categorizes working conditions into job demands (e.g., time pressure, workload, physical and psychological demands) and job resources (e.g., social support, feedback, autonomy, pay, role clarity, team climate; Bakker et al., 2003; Demerouti et al., 2001). An imbalance

(e.g., high chronic work stress and low resources), may lead to burnout and/or dissatisfaction.

Nature of the Study

To address the research questions in this quantitative study, the research design included a nonexperimental, correlational approach with the distinct advantages of separating the researcher from the research participant, focusing on quantifiable patterns, and generating objectively reproducible results (Rahman, 2017). I needed to assess U.S. federal employees' viewpoints for this intended study. The U.S. federal government reportedly employed an average of 2.79 million individuals between 2012 and 2021 (Statista Research Department, 2022). A web-based survey instrument enables respondents to self-administer by reading and responding to survey questions at their convenience (Burkholder et al., 2020; Groves et al., 2009). Utilizing web-based surveys facilitates the widest reach to participants within the federal government since employees are geographically dispersed worldwide.

To access the target population for this study of federal employees, I utilized secondary data collected through the OPM's Federal Employee Viewpoint Survey (FEVS), which is a web-based, self-administered survey sent to employee emails with an invitation to participate (OPM, 2021). The data set from the OPM FEVS is made publicly available once cleaned and masked for anonymity on the OPM website. OPM FEVS climate survey questions address the constructs within this study. They are administered as a census to all full- or part-time, permanent, non-seasonal, non-politically appointed, and phase-retirement federal employees. The breadth of data would not have been

feasible on my own, and it is representative of this target population, making it a good fit for this study.

When considering turnover intentions, I wanted to focus more on quits than retirements. Insights from 2021 fiscal trends indicate that turnover calculations were comprised primarily of quits for federal employees under 49 years old and shifted considerably to primarily retirements for those over 50 (Partnership for Public Service, n.d.). OPM FEVS currently breaks age demographics into under 40 and over 40. Since 2021 trends show retirements start to factor in in the 40–49 age bracket, focusing this study on federal employees under 40 was a meaningful consideration for turnover.

Access to the dataset is public. However, I needed to evaluate the technical reports to ensure that responses could not be traced to the employee (e.g., via the specific organization and demographic data). While the OPM FEVS has an existing index for global satisfaction, it does not already have any indices specifically for perceived organizational support, psychological safety, and burnout. Therefore, I needed to select the appropriate questions for operationalizing each variable based on theoretical underpinnings. Concept redundancy and discriminate validity are concerns among the prior uses of OPM FEVS and support the use of confirmatory factor analysis (CFA) as a superior standard for use with OPM FEVS in future studies (Resh et al., 2021; Somers, 2018). Further, my analysis approach included structural equation modeling (SEM) to allow the moderator to predict each of the outcomes, and the residuals in the model would then be allowed to covary (Montoya, 2019).

Definitions

The terms that required operational definitions for this study include the primary variables of perceived organizational support, employee satisfaction, turnover intent, psychological safety, and burnout. Further discussion is provided in Chapter 2.

Burnout: Includes three key dimensions that refer to the extent an employee experiences exhaustion, feelings of cynicism and detachment from their job, and a sense of ineffectiveness or lack of accomplishment at work (Zhang et al., 2022).

Employee satisfaction: In this study refers to a general sentiment of contentedness with their job, pay, and the organization (OPM, 2022b; Vesna et al., 2023; Zhao et al., 2020).

Perceived organizational support: Refers to the employees' perceptions that the organization they work within values their contributions, supports them in completing their day-to-day tasks, and exhibits care for their well-being (Eisenberger et al., 2020; Hngoi et al., 2023; Ko & Hur, 2014; Kurtessis et al., 2017).

Psychological safety: Conceptualized in this study as employees' sentiment about their belief in expressing ideas and opinions without the risk of negative consequences (Edmondson & Bransby, 2023; Halliday et al., 2022). In other words, psychological safety refers to the individual's self-belief that their workplace is safe for taking interpersonal risks, such as voicing differing opinions and ideas or acting independently on key decisions (Frazier et al., 2017; Sobiath et al., 2022).

Turnover intent: Refers to employees' conscious and deliberate sentiment to leave their organization within a defined period of time (Hebles et al., 2022; Lazzari et al.,

2022; Zhang et al., 2022).

Assumptions

Some assumptions of this study relate to using a web-based, self-administered survey. Notably, I assumed that respondents met the criteria to participate. OPM administered the survey via emails to federal employees with an invitation to participate (OPM, 2022a). However, in addition to assuming the respondents answered truthfully, it was assumed that the invitation email was not forwarded to other individuals and that the responses are representative of the intended federal employees. Further, I assumed that measurement errors might be generally traced back to some problem in the cognitive analysis of the response process (e.g., respondents misunderstood the question, misread it, made an inappropriate judgment, immediate environmental factors significantly influenced their sentiments at the time of assessment, fatigue; Groves et al., 2009).

The use of secondary data also encompasses inherent assumptions. Primarily, I assumed that the data collected initially through OPM's methods are complete, credible, reliable, ethically obtained, and accurately represent federal employees. Further, I assumed quality rigor in cleaning and masking the data for public consumption to protect respondent confidentiality and ensure the data are fundamentally unchanged.

Scope and Delimitations

Insights from the 2021 fiscal trends indicate that turnover calculations among federal employees were comprised primarily of quits for those under 49 years old and shifted significantly to primarily retirements for those over 50 (Partnership for Public Service, n.d.). I aimed to capture turnover intent sentiments more in the form of quits

than retirements as a reflection of voluntary premature separation from their organization. Since the 2022 and 2023 OPM FEVS break age demographics into under and over 40 and 2021 trends indicate retirements start to factor in at the 40–49 age bracket, I narrowed the target sample population to federal employees under the age of 40 years old for meaningful consideration of turnover intent sentiments.

Limitations

Limitations represent considerations beyond the researcher's control in any study (Theofanidis & Fountouki, 2018). Common source bias is one concern since the predictor and criterion variables are all collected from the same sources in this study (Kim & Daniel, 2020; Resh et al., 2021). Further, since I used secondary data and subsequently came in after the collection was completed, I was not afforded the ability to manipulate the survey questions if necessary to measure the variables of interest more effectively. Also, these findings may not be generalizable to organizations outside of the federal government because views of organizational support may differ for federal employees than in the private sector, given the matrixed nature of the federal government. Similarly, perceptions of pay satisfaction (i.e., an element of job satisfaction), burnout, and intentions to leave the organization may vary considerably between federal and private sector employees.

Significance

This research study relied on the representativeness and generalizability of the OPM FEVS across federal agencies (Fernandez et al., 2015). Results may catalyze agencies to improve perceptions of organizational support or capitalize on the moderating

influences of psychological safety and employee burnout among their workforces to improve satisfaction and mitigate turnover intentions within their organizations. Turnover is a significant expense for the federal government (Lavigna, 2021; McFeely & Wigert, 2019; OPM Data Analysis Group, 2018a). This research study may contribute to positive social change by informing agencies about conditions that may help mitigate turnover intentions, and setting an example for more robust analysis methods utilizing OPM FEVS for future researchers.

Summary

Employee turnover is a costly epidemic for the federal government. While many factors may influence an individual's intention to leave their employer, this study will attempt to improve collective understanding of the relationships between perceived organizational support and employee satisfaction with federal employees' acknowledged intent to leave their organization within a defined period of time. Additionally, I evaluated psychological safety and burnout for moderating effects between the relationships. Chapter 2 outlines and synthesizes current and seminal literature relevant to building this study. Each predictor and criterion variable is explored in more detail to analyze known connections between them in the extant literature. Additionally, the chapter includes an analysis of the theoretical underpinnings of OST and JD-R in relation to this study.

Chapter 2: Literature Review

Organizational leaders need to understand the influence and interactions of significant factors to better design conditions that may help organizations mitigate adverse outcomes leading to employee turnover. The purpose of this study was to determine the extent to which perceived organizational support, employee satisfaction, psychological safety, and burnout are associated with turnover intentions among federal employees under the age of 40 years old. Additionally, I explored the moderating effects of perceived psychological safety and burnout using a quantitative, nonexperimental, correlational approach.

Conducting a thorough synthesis of current literature related to the supporting theories and study variables is a key component of any robust research study. This literature review covers topic areas related to the literature search strategy employed, theoretical framework, predictor variables, and criterion variables. Specifically, I evaluated how recent researchers have utilized the supporting theories to examine similar relationships with perceived organizational support, employee satisfaction, psychological safety, burnout, and turnover intentions.

Literature Search Strategy

Various search strategies were employed to source the necessary current and seminal works to build this study. Primarily, information was sourced through Walden University Library and Google Scholar platforms to access APA PsychINFO, SAGE Journals, Taylor and Francis Online, Academic Search Complete, Business Source Complete, and ProQuest Central databases. I used the following keywords for the

primary searches within the referenced databases: *perceived organizational or perceived organisational support, psychological safety, psychological safety in the workplace, employee satisfaction or job satisfaction or work satisfaction, employee satisfaction in the workplace, psychological safety at work, employee burnout, employee burnout in the workplace, turnover intention or intention to leave or intention to quit, organizational support theory, social exchange theory, and social exchange theory in the workplace*. In addition to the keywords, the results were limited to full-text, peer-reviewed articles primarily published in 2018 or later. Older publications were reviewed for seminal works. In total, 130 articles were reviewed for this literature review, and 70% represent publication dates of 2018 or later.

Theoretical Framework

It is imperative to bridge the ability to leverage statistical analyses and explain variations in both a technical and meaningful way with a theoretical framework that guides the foundational understanding of a phenomenon (Dietz & Kalof, 2009). The theories that comprise the foundational underpinnings that this study is built on include OST (Eisenberger et al., 1986) and the JD-R model (Demerouti et al., 2001). I discuss each theory's principal tenets and origins and how recent researchers have utilized them to explore topics related to this study. This section serves to clarify the implicit theories and concepts guiding the perspectives of the relationships between predictors, criterions, and moderators in this study.

OST.

OST was developed by Eisenberger et al. (1986) as a conceptual lens to interpret

an employee's affective commitment to the organization they work in through the employee's belief in the level of commitment the organization has to them. OST expands on the tenets of social exchange theory, self-enhancement theory, and the norms of reciprocity and integrates an anthropomorphic assignment of dispositional traits to the organization itself (Eisenberger et al., 1986; Levinson, 1965; Maan et al., 2020). In other words, a major assumption of OST is that the employee personifies the organization and views it, to some extent, as a living being with purpose, intention, responsibility for its actions, and it can exert power over individual employees. An employee may also view the actions and communications from any agent of the organization (e.g., colleague, supervisor, senior leader) as actions or communications of the organization itself through this personification.

As mentioned, OST expands on tenets of social exchange theory, the norms or reciprocity, and self-enhancement theory. The premise that relationships are formed based on subjective cost-to-benefit analyses between individuals is core to social exchange theory (Blau, 1964; Chernyak-Hai & Rabenu, 2018; Emerson, 1976; Kurtessis et al., 2017). The norm of reciprocity posits that individuals should help others who help them (Gouldner, 1960), and self-enhancement theoretical processes involve perceived organizational support fulfilling the employee's socioemotional needs (e.g., need for belonging, approval, esteem, emotional support) resulting in increased identification with the organization (Eisenberger et al., 2020). OST invokes these premises as a perceived tradeoff between effort and loyalty to the organization, and it is expected that work effort will increase from the development of greater effort-outcome expectancies based on these

exchange ideologies.

Within the theoretical framework of OST, perceived organizational support is a generalized employee perception (Baran et al., 2012; Eisenberger et al., 1986; Kurtessis et al., 2017). Instead of focusing on specific, ideographic instances, numerous organizational factors may influence perceived organizational support (e.g., supervisor/coworker behaviors, organizational policies, culture). By personifying the organization, employees may form perceived organizational support as a meaningful explanation for past treatment from the organization to help anticipate future treatment, thereby mediating the relationship between organizational factors and employee outcomes (e.g., satisfaction, engagement, turnover intentions). The tenets of OST also acknowledge that healthy relationships between employees and their employers fulfill critical socio-emotional needs, thus may enhance employee well-being, and decrease burnout effects.

OST has been used as a theoretical foundation in recent studies to explore the relationship of perceived organizational support with a variety of job attitudes such as employee engagement (Anjum & Prasad, 2023), antecedents (e.g., fairness, work conditions, leadership; Eisenberger et al., 2020), the type of social supports expected within different cultures (Charoensap-Kelly et al., 2023), the value of its practical application within human resource management (Shanock et al., 2019), and the relationships between nontechnical communication skills and management support (Bunner et al., 2020). Research into employee well-being has also extended OST by finding that perceived organizational support moderates the negative effects of work

stressors imposed on employees' well-being, partly by fulfilling socioemotional support needs (Baran et al., 2012). Therefore, I leaned on OST in this study to suggest that an employee may subjectively and even unconsciously weigh the cost-to-benefit perceptions of how well the organization supports them, how satisfied they are at work, and their perceived psychological safety and burnout to influence their intentions to leave their organization significantly.

JD-R Model

I also integrated the JD-R model to create deeper, meaningful understanding of burnout and satisfaction within the workplace. Demerouti et al. (2001) developed the JD-R model to extend the conceptualization and measurement of burnout beyond the human service sector since empirical evidence indicated that stressors leading to burnout also exist in other professional settings. That said, a principal assumption of the JD-R model is that burnout can develop in any work setting when the job demands are high, and the job resources available to meet those demands are limited (Bakker et al., 2003). When conditions like that exist, it can deplete employees' energy, motivation, and satisfaction because of the disruption of equilibrium within the cognitive-emotional-environmental system.

The JD-R model categorizes working conditions into job demands and job resources (Bakker et al., 2003; Demerouti et al., 2001; Lenz et al., 2023; Pan et al., 2022). Job demands include any aspects of the job that entail sustained levels of physical or mental engagement (e.g., time pressure, high workloads, conflicting demands, role ambiguity) and thus often include physiological and psychological costs (e.g., exhaustion,

irritability, illness). Job resources (e.g., social support, feedback, autonomy, pay, role clarity, team climate, task variety) are the natural counter to job demands in that they are the aspects of the job that aid an employee in reducing job demands, meeting work goals, or stimulating personal growth and development.

The JD-R model has been used as a theoretical foundation in recent studies to explore various workplace challenges. Pan et al. (2022) used the model to explain how job resources inspire employee engagement and increase motivation to perform organizational obligations. The results of their study indicated that Chinese knowledge workers exhibited more engagement to gain more job resources. Alternatively, researchers have used the JD-R model to predict employee well-being and various performance outcomes (Katou et al., 2022; Lenz et al., 2023; Strassburger et al., 2023) or explore specific resources like meaningful work (Meng et al., 2022) or technologies (Ruiner et al., 2023). Integrating the JD-R model into the theoretical framework for this study provided a foundation to understand the polarity of imbalances (e.g., high chronic work stress and low perceived organizational support or psychological safety) that may underpin employee burnout and/or dissatisfaction.

Literature Review of the Constructs

The economic collapse during the Great Depression highlighted the human cost of prioritizing efficiency over worker well-being, marked by widespread unemployment and societal despair during this period in our history. The Hawthorne Studies in the 1920s and 1930s were designed to challenge contemporary beliefs that employee productivity hinged on wages and working conditions but unexpectedly highlighted the significant

influence of social factors (Roethlisberger & Dickson, 1939). This paradigm shift from viewing the worker as a physical hand in the productivity of an organization to exploring the mindset, attitudes, and motivations of the workers during the Great Depression gave significant rise to industrial psychology and greatly influenced popular interest in understanding worker attitudes like employee satisfaction (Hoppock, 1936; Roethlisberger & Dickson, 1939).

Organizations, like cars and the human body, are complex systems that function more as a whole than a sum of their parts. Similarly, the employee experience is a complex system influenced by many factors beyond individual interactions with a supervisor or specific workplace perks. That said, to enhance the employee experience, it is imperative to examine multi-variable interactions. This study examined perceived organizational support, employee satisfaction, turnover intentions, psychological safety, and burnout conditions. Each variable is discussed in more detail in the following sections.

Perceived Organizational Support

Building on the concept of reciprocation, personification of an organization, and evaluating what an organization means to an employee (Blau, 1964, 1986; Levinson, 1965), Eisenberger et al. (1986) introduced perceived organizational support to understand phenomena influencing employee organizational commitment meaningfully. Prior to this, Levinson's (1965) work bridged a gap in industrial psychology at the time between empirical mass data points around variables that lent themselves readily to measurement and intrapersonal considerations between the employee and their

environment. The discussion of an employee-organization relationship developed from the social, psychological, and economic benefits reinforced when employees identify with their organizations. Levinson posited that transference (i.e., a Freudian phenomenon where an individual unconsciously applies past attitudes, impulses, and expectations to present situations in exaggerated forms) also occurs at the organizational level.

Employees project human qualities to the organization because of transference and their relationships with people affiliated with the organization.

Building on the personification of the organization, perceived organizational support developed into the employee's perception that the organization they work within values their contributions, supports them in completing their day-to-day tasks, and exhibits care for their well-being (Eisenberger et al., 1986; Eisenberger et al., 2020; Hngoi et al., 2023; Ko & Hur, 2014; Kurtessis et al., 2017). The employee's perceived level of perceived organizational support factors into a cost-benefit analysis and influences their affective commitment to the organization and effort-to-benefit expectancies. Further, the value of the symbolic benefits that come from their effort relies heavily on the perceived sincerity of the organization or agent (Blau, 1964).

Blau (1964) emphasized the socio-emotional components of a relationship between employee and employer as critical components in developing felt obligation in the role of reciprocity. Much of the research on relationships with perceived organizational support until the early 2000s relied heavily on this framework posited by Blau but later began to shift and include other themes. Other areas of focus included employee well-being factors about perceived organizational support (Baran et al., 2012;

Jawahar et al., 2007), nontraditional employee-employer relationships (Kalleberg, 2000), and international or cross-cultural considerations (Guerrero & Herrbach, 2008).

Perceived organizational support has been found to moderate several relationships, such as role conflict and emotional exhaustion (Jawahar et al., 2007), family interfering with work and continuance commitment (Baran et al., 2012), and organizational identity and knowledge sharing (Imamoglu et al., 2023). Fairness (Kurtessis et al., 2017; Rhoades & Eisenberger, 2002), leader support (Eisenberger et al., 2020), and high-performance work systems (Kim et al., 2023) are significant antecedents of perceived organizational support. Perceived organizational support has significant positive relationships with work-life balance (Okeke et al., 2023), work-from-home experiences (Ferreira & Gomes, 2023), affective organizational commitment (Hngoi et al., 2023; Pattnaik et al., 2020), overall job satisfaction (Kurt & Duyar, 2023), and life satisfaction (Zhao et al., 2020).

Employee Satisfaction

The satisfaction of employees in the workforce has been defined and explored from a variety of perspectives and definitions over the years, such as personal satisfaction (e.g., Locke, 1969), needs satisfaction (e.g., Morin et al., 2023), life satisfaction (e.g., Zhao et al., 2020), and more commonly job satisfaction (e.g., Heimerl et al., 2020; Hoppock, 1936; Hur & Abner, 2023; Kurt & Duyar, 2023; Locke et al., 1986; Vesna et al., 2023). By the 1960s, much of the research conducted on employee satisfaction had taken a “correlation without explanation” approach where researchers sought to measure a phenomenon and correlate it with a myriad of other phenomena (Locke, 1969, p. 310). However, this approach resulted in increased contradictions and decreased confidence in

the conclusions of each new study. The call for identifying causal relationships emerged, spurring a deeper conceptual analysis into satisfaction and dissatisfaction related to the employee in the workplace.

Aligned with Brandon's Theory of Emotions, Locke (1969) first posited that an employee's satisfaction and dissatisfaction are complex emotional reactions to the job, which itself is an abstraction of all the elements in a job (i.e., tasks performed in certain physical/social contexts for remuneration) rather than a measurable entity. The emotional reaction is the psychosomatic form of value judgment, which is the effect of an individual deciding if something (e.g., job conditions) enhances or threatens their values. As a simplified example, an unassuming snorkeler spots a tiger shark swimming up from the depths and, without conscious reflection, realizes the shark may be a significant threat to their safety so appraises the shark as dangerous. The effect of that value judgment is likely the emotional reaction of fear. In the case of the employee, satisfaction and dissatisfaction are a function of what the employee wants to achieve from working a job (i.e., the job value) and what they perceive the job offers in terms of helping them achieve what they want (i.e., the value judgment). This highlights the interactional nature of employee satisfaction because it results from perceptions of an employee's interaction with the contexts of the job environment.

The findings of recent research indicate that positive drivers of overall satisfaction include relationships with leadership, professional development opportunities, the flexibility of working hours, meaningfulness and challenge in work, pay satisfaction, and organizational support (Heimerl et al., 2020; Kurt & Duyar, 2023; Zhao et al., 2020).

Conversely, several studies have concluded negative correlations between exhaustion, job stress, role conflict, depersonalization, family-work conflict, and turnover intentions with employee satisfaction (Hur & Abner, 2023; Morin et al., 2023; Park & Min, 2020; Pu et al., 2024). These findings were relevant to this study because they indicate that working environment conditions that impact emotional attachments to the job and organization influence an employee's satisfaction. As an extension, they may impact an employee's overall intention to remain in the job. Pu et al. (2024) posited that emotional exhaustion and job satisfaction are sequentially interconnected as mediators in the effect of customer incivility on turnover intention. I intended to investigate further the direct relationships of employee satisfaction with perceived organizational support and turnover intentions and explore any moderating effects psychological safety and burnout may have on those relationships.

Turnover

While the phenomenon of turnover is, arguably, as old as the establishment of employment, the academic interest in turnover began a little over a century ago when U.S. manufacturing organizations were experiencing as high as 600% turnover in the years before the Great Depression and the costs to the organization were recognized (Bolt et al., 2020; Diemer, 1917). It is estimated that employee turnover can cost an organization anywhere from 16–200% of spending on annual salaries depending on the education and experience required for the job to account for things like the cost of recruiting, training, decreased production while getting the new employee up to speed, and overtime for existing employees to cover extra workloads during transitions (Abner,

2023; Diemer, 1917). Since turnover has a more pronounced impact on organizations when talent and labor markets are tight, it is understandable that research interest in the topic has ebbed and flowed over the years with periods of economic booms (Bolt et al., 2020).

Extant research has primarily focused on identifying individual characteristics and antecedents associated with turnover. Price (1977) and Mobley (1977) were among the first to posit models of turnover designed to codify predictors and the psychological processes by which employees develop turnover decisions, and over the years three streams of turnover research have emerged: actual turnover (i.e., formal cessation of employment), turnover or withdrawal intention (i.e., the conscious willingness of an employee to leave their current job or organization), and talent retention (i.e., an employee's desire to stay employed in a job or organization; Bolt et al., 2020; Lazzari et al., 2022).

As a phenomenon, turnover generally refers to the separation of an employee from their job or organization and may be classified as voluntary or involuntary, which is differentiated by who initiates the separation (An, 2019; Bolt et al., 2020). That is, voluntary turnover is initiated by the employee's conscious decision to leave the job or organization. The employer typically initiates involuntary turnover to fire, force retire, lay off, or otherwise separate an employee from their job. Given their different etiologies, it is essential to differentiate the types of turnover to build an understanding of the psychological processes and predictive influences for each type.

Extant research has explored predictors of turnover intentions, including

individual characteristics and organizational factors, but results are often mixed. For example, in some studies, sex and educational attainment have been significantly related to turnover intentions but not in others (e.g., Kang et al., 2021; Liss-Levinson et al., 2015; Wynen & Op de Beeck, 2014). Similarly, research findings indicate that different key organizational factors have varying effects compared to other factors. For example, Kang et al. (2021) reported that early federal career individuals were at risk of turnover intentions when their reported job satisfaction was low-to-mid. However, those with high job satisfaction but low satisfaction with promotion opportunities were also at-risk subgroups, highlighting the critical influence of multiple factors. Additionally, Le et al. (2023) reported that the significant influence of job demands on an employee's turnover intentions varied depending on the employee's level of family support. That said, job satisfaction remains a key factor in turnover intention research, often explored through indirect functions of other factors influencing turnover intentions through enhancing job satisfaction (e.g., psychological capital, perceived family support, contracting out; Le et al., 2023, Lee et al., 2021), highlighting the importance of inclusion in this study.

Measuring absolute turnover (i.e., all separations of employment regardless of the etiology) within an organization or industry may be appropriate if the types of turnover can be randomly distributed, but that is difficult to achieve in practice (An, 2019). Additionally, voluntary and involuntary turnover may vary widely in terms of the costs imposed on the organization because of their different etiologies. Further, isolating actual voluntary turnover may be even more difficult in cases where employees are strongly encouraged to resign in lieu of being fired. That said, I focused instead on voluntary

turnover intentions, self-reported by employees in this study. The cross-section of responses captured in this study will better relate to the present perceived state of the other variables' influence on their intentions to leave the organization.

Psychological Safety

The construct of psychological safety was introduced to organizational change research in the 1960s. As a critical component of their unfreezing change process, psychological safety was used to describe a mechanism to help people feel secure and ready for change by Schein and Bennis (1965). Later, the concept was broadened to describe a means to help people overcome learning anxieties in the workplace, achieve shared goals, solve problems without excessive self-protection, and improve employee engagement (Edmondson & Bransby, 2023). In today's hyper-competitive and fluid work environments, employees are encouraged to be more active and engaged. This heightens the importance of identifying and understanding what factors enhance employees' willingness to take interpersonal risks and share ideas that can improve an organization's learning and innovation.

Psychological safety generally refers to employees' sentiments about their confidence in expressing ideas and opinions in the workplace without risk of negative consequences (Edmondson & Bransby, 2023; Halliday et al., 2022). Kahn (1990) described psychological safety as a state in which employees feel safe to show or share their authentic selves without fear of being shamed or negatively affecting their self-image, status, or career. In other words, psychological safety refers to the individual's self-belief that their workplace is safe for taking interpersonal risks such as voicing

differing opinions, sharing ideas, making mistakes, or acting independently on key decisions (Frazier et al., 2017; Sobiath et al., 2022). While early researchers (e.g., Kahn, 1990) focused on psychological safety through individual perceptions, recent scholars (e.g., Edmondson & Bransby, 2023; Halliday et al., 2022) have complemented their contributions with group levels of analyses. The overall message from the extant research is that when employees are comfortable taking interpersonal risks and possess that felt permission for candor at an individual and/or group level, a wide range of outcomes may be enhanced.

It is vital to differentiate psychological safety as a cognitive state distinct from similar, commonly researched constructs. Three noteworthy, closely related constructs include psychological empowerment, work engagement, and trust. A meta-analysis conducted by Frazier et al. (2017) delineated the similarities and differences between the easily confused constructs. Psychological empowerment refers to a sense of having control over one's work, encompassing meaning, self-determination, competence, and impact. Simply put, it is an intrinsic motivation focused on the specifics of the job or tasks. Work engagement also refers to positive intrinsic motivation through a cognitive appraisal, which involves investing energy and resources into work roles and tasks. While similar, psychological safety focuses more on the broader perceptions of the work and social environments and less on the job roles or tasks.

Trust is also a very similar commonly researched construct in that it refers to elements of risk and vulnerability. However, Edmondson (2004) delineated trust from psychological safety by pointing out the inherent willingness of each construct to give the

benefit of the doubt. That is, trust gives the benefit of the doubt to others when considering an employee's willingness to be vulnerable, whereas psychological safety refers more to believing others will give them the benefit of the doubt when they are vulnerable in the workplace (Edmondson, 2004; Frazier et al., 2017). While psychological safety is closely related to other workplace sentiment constructs, it offers distinct perceptions of willingness to take risks in the workplace.

Using a bibliometric analysis of the last decade of research on psychological safety, Edmondson and Bransby (2023) identified themes and relationships in 185 cumulative studies to create a list of four research clusters including, getting things done, fostering learning behaviors, leadership, and improving the work experience. In the theme of getting things done, psychological safety has been found to influence decision-making processes and problem-solving and indirectly increase performance outcomes at the individual, group, and organizational levels (Edmondson & Bransby, 2023). Psychological safety also increases organizational learning (Lyman et al., 2020), knowledge transfer (Hassan & Jiang, 2019), and knowledge sharing, especially when there is high interpersonal risk involved (Liu & Keller, 2021). Within the theme of leadership, psychological safety has been found to mediate leadership behaviors and innovation (Han et al., 2019), mediate relationships with mentoring and affective commitment and turnover (Chen et al., 2014), and participative leadership and creativity (Chen et al., 2020). Lastly, in the theme of improving the workplace, psychological safety has been found to decrease silence behaviors and workplace incivility (Edmondson & Bransby, 2023), emotional exhaustion (Grant et al., 2014), burnout (Edwards et al.,

2021), compulsory citizenship behaviors (Yildiz et al., 2023), and mediate engagement and satisfaction (Ahmad & Umani, 2019), and voice and speaking up (Edmondson & Bransby, 2023).

Despite the maturity of the concept and psychological safety's predictive capabilities of a wide range of outcomes (e.g., creativity, performance, reporting, culture, affect), it is important to note the wide variability across organizational units and interpersonal climates that may change over time. There is still much to learn about the different contexts in which psychological safety may be further leveraged as a moderator to achieve desired results within challenging contexts. In this study, I sought to examine the moderating effects of psychological safety on perceived organizational support, satisfaction, and turnover intentions.

Burnout

Freudenberger (1974) pioneered research into the concept of burnout by observing the volunteers in his therapeutic Free Clinic communities. He posited that the dedicated and committed staff were most prone to burnout because of their passion of responding to the needs of those they serve. They were more prone to feeling pressured internally and externally to help and give more, ultimately falling into what he called a "burn-out trap" (p. 161). Burnout was defined as "deplet[ing] oneself. To exhaust one's physical and mental resources. To wear oneself out by excessively striving to reach some unrealistic expectation imposed by oneself or by the values of society" (Freudenberger & Richelson, 1980, p. 16). This work on burnout focused primarily on clinical observations of the staff. It included physical (e.g., exhaustion, fatigue, headaches, inability to shake a

cold, sleeplessness) and behavioral signs (e.g., irritability, quick anger, difficulty regulating emotions, increased risk-taking, drug seeking to relax).

Maslach (1978) highlighted burnout conditions in the human services industry that stemmed from an observation of increases in customer complaints about the services they received. Noting that human service staff rarely received the training to adequately prepare them with skills (e.g., detached concern) to cope with the chronic stress of the industry, Maslach posited that burnout begins when the staff can no longer maintain the compassion and commitment necessary for the job. Maslach characterized burnout based on the individual's perceptions of and feelings towards the clients they worked with. That is, the emotional exhaustion in burnout is characterized by a loss of concern, sympathy, and respect for clients. This exhaustion, dehumanizing, and cynical perception of the client's needs ultimately manifested into a decline in the quality of service provided, low morale, absenteeism, and high turnover.

Since then, burnout has expanded beyond the helping professions into diverse work environments and evolved further to include three key dimensions (i.e., overwhelming exhaustion, feelings of cynicism and detachment, and a sense of ineffectiveness or lack of accomplishment in one's work; Bakker et al., 2014; Heinemann & Heinemann, 2017; Hur & Abner, 2023; Maslach & Jackson, 1981; Zhang et al., 2022). Expanding beyond Freudenberger's (1974) clinical observation-based diagnostic approach, Maslach and Jackson (1981) operationalized it as a psychological syndrome. They developed the Maslach Burnout Inventory (MBI), widely used today to measure the three-dimensional construct of burnout.

Various theoretical models have emerged that explore the predictors and outcomes of burnout. Many of the models include stress-based models (e.g., Schaufeli et al., 2009), perceived equity between contributions and results (e.g., Schaufeli et al., 1996), and the balance of tension between job demands and job resources (e.g., Bakker et al., 2014; Demerouti et al., 2001; Meng et al., 2023). Generally speaking, predictors of burnout may fall into either individual factors (e.g., organizational strategies, stress coping skills, learning motivation; Maslach, 1978; Rehman et al., 2020; Schaufeli et al., 2009), organizational factors (e.g., excessive work schedules, high demands, poor interpersonal relationships, lack of job resources, lack of organizational support; Pan et al., 2022; Pu et al., 2024; Schaufeli et al., 1993), or societal factors (e.g., economic downturns, new technologies, decreasing work boundaries with mobile devices). Primarily, burnout is viewed as a result of exposure to certain workplace conditions (e.g., increased job demands, work stress; Salama et al., 2022; Strassburger et al., 2023) and not an individual personality trait.

Depleting oneself at work to the point of burnout may lead to adverse work outcomes (e.g., dissatisfaction, absenteeism, turnover, organizational commitment) that carry individual, organizational, and societal-level impacts. For example, the COVID-19 pandemic shed light on burnout among our healthcare service workers in the U.S. The systemic burnout culture among healthcare service providers has led to strains on the workers' physical and psychological health with trickling effects on healthcare organizations (e.g., staff shortages, poor patient satisfaction) and society (e.g., rising healthcare costs, difficulty providing quality healthcare; U.S. Department of Health and

Human Services, n.d.).

Burnout is a complex phenomenon with far-reaching individual, organizational, and societal implications. A growing area of research focuses on various interactions with burnout to inform preventative strategies to mitigate burnout and its effects on the workforce. For example, Edwards et al. (2021) found that higher psychological safety was associated with zero-burnout primary care practices (i.e., small-to-medium-sized U.S. primary care practices that had no members report burnout in their study). However, much research remains to explore to understand multi-variable interactions better and help inform prevention strategies and interventions to design healthier work environments. This study may contribute to the extant literature by investigating the complexity of interactions between burnout and perceived organizational support, employee satisfaction, voluntary turnover intentions, and psychological safety.

Summary and Conclusions

Much research is interested in defining conditions that enhance the employee experience at work and retention within organizations. The support that employees perceive they receive from the organization, their level of burnout, their comfort in taking risks at work, and the level of contentedness an employee has with the aspects of their work have all been shown to independently influence an employee's voluntary intention to leave their job or organization in one or more ways. However, recent research has also highlighted the need to understand multi-variable influences better on employees' cognitive intentions to leave their organization. This study examined a multi-variable model for mitigating employee turnover intentions and extends current knowledge of the

interactions between perceived organizational support, employee satisfaction, psychological safety, burnout, and turnover intentions. Chapter 3 outlines the method and approach used to examine these relationships in more detail.

Chapter 3: Research Method

The study aimed to determine the extent to which perceived organizational support, employee satisfaction, psychological safety, and burnout are associated with turnover intentions among federal employees under 40 years old. A quantitative, nonexperimental, correlational approach was utilized to evaluate the relative strengths of the relationships between the predictor variables and their respective criterion variables. Further, this study examined if the relationships vary based on the level of perceived psychological safety and burnout. In this chapter, I discuss the rationale for the research design and overall methodology for conducting the study, including instrumentation, operationalizations of the variables, data analysis plan, and threats to validity.

Research Design and Rationale

The objective of this study was to understand the relationships between perceived organizational support, employee satisfaction, and turnover intentions. Since psychological safety and employee burnout have been found to have moderating effects on various employee outcomes, another goal of this study was to explore their moderating effects on the relationships mentioned above. Five variables were explored in this study, as measured as employee self-reported sentiments provided in the OPM FEVS. The predictor variables include perceived organizational support and employee satisfaction. Employee satisfaction was also explored as a criterion variable with turnover intention. The two moderating variables included perceived psychological safety and employee burnout.

Nonexperimental correlational design approaches afford researchers the distinct

advantages of separating the researcher from the research participant, focusing on quantifiable patterns, and generating objectively reproducible results (Rahman, 2017). By utilizing secondary data collected through the OPM FEVS, I intended to maximize government investment in data collection and reduce the survey burden on respondents because questions in the climate survey may address the constructs within this study. The breadth of data available in the OPM FEVS would not have been feasibly attained on my own and is representative of my target population, making it a good fit for this study.

Methodology

By leveraging this large, comprehensive OPM FEVS dataset, I aimed to provide insights into the factors influencing the retention of younger federal employees. With a substantial portion of the federal workforce approaching retirement age, understanding what drives turnover intentions among the next generation of workers is critical for effective workforce planning and retention strategies within government agencies. This section outlines the target population, sampling procedures, data access, measures, and analyses I employed. I emphasize operationalizing the key constructs using the OPM FEVS items to ensure construct validity and appropriate measurement models. The robust sampling and nationwide scope of the OPM FEVS data offer a powerful platform to examine these relationships among federal employees under 40 years old.

Population

The target population for this study was full- or part-time employed federal employees under 40 years old. Fiscal trends in 2021 indicated that voluntary turnovers in the form of quits make up the majority of turnover calculations among federal employees

under 49 years old before shifting considerably to primarily retirements for those over 50 (Partnership for Public Service, n.d.). Further trends show that retirements begin to meaningfully factor into turnover calculations as early as the 40–49 age bracket. The focus on federal employees under 40 years old was a meaningful consideration relative to voluntary turnover intentions in the form of quits in this study.

Archival Data Collection, Sampling, and Access

Archival data from the 2022 OPM FEVS were utilized for this study, so this section outlines the procedures for participation and data collection employed by OPM to collect the data. According to OPM's (2022a) technical report, the 2022 OPM FEVS was a web-based, self-administered survey. Invitations were emailed to all eligible participants directly from OPM, complete with instructions, estimated time required (i.e., 30 minutes or less), and a unique survey link. No more than four reminder emails were sent to nonrespondents up to the final week of the data collection period. OPM launched the survey in two waves across participating agencies, and the collection period spanned 6 work weeks beginning either May 31, 2022 or June 6, 2022.

Westat has been the primary contractor for the survey since 2004 and was responsible for all technical expertise and support during the collection period, including the establishment of a help center available to assist federal employees with questions about the survey Monday through Friday 8:30 am to 5:00 pm Eastern Time (OPM, 2022a). Establishing the Survey Management System and trained staff enabled optimized responses to inquiries and technical assistance times. Of the 629,763 emails received by the help center, 14,952 were individual inquiries or comments that required personalized

assistance with needs ranging from determining eligibility to clarifying survey content.

Sampling and Sampling Procedures

Inclusionary criteria for participation in the 2022 OPM FEVS included permanently employed, nonpolitical, nonseasonal, full- or part-time, and phase-retirement federal employees who were employed as of November 2021 (OPM, 2022a). Some participating agencies expanded eligibility to include nonpermanent and additional work schedules, but political appointees, contractors, and non-federal employees remained ineligible to participate in the survey. Excluding the Department of Veterans Affairs, National Aeronautics and Space Administration, U.S. Security and Exchange Commission, and U.S. African Development Foundation, who did not participate in the 2022 OPM FEVS despite the prior year participation, the total sampling frame was 1,582,112 (OPM, 2022a). This sampling frame was based on the personnel database managed by OPM as part of the Statistical Data Mart of the Enterprise Human Resources Integration. The age group of interest in this study was those federal employees under 40 years old at the time of survey administration. An average of 28% of the federal workforce was under 40 from 2010 through 2017, according to data collected by the U.S. OPM Data Analysis Group (n.d.). Extending that average to 2022, the sampling frame for federal employees under 40 was an estimated 445,000 individuals.

There is no one-size-fits-all solution to address the most ideal sample size in research (Memon et al., 2020). According to G*Power analyses, for any moderated regression or analyses of covariances with small to medium effects, .05 alpha, and .95 power, a sample size of 385 respondents will provide adequate statistical power (Faul et

al., 2007). An additional a priori sample size calculation for SEM recommended a minimum sample size of 200 for four latent variables and 24 observable indicators with small to medium effects, .05 alpha, and .95 desired statistical power (Soper, 2024). In a meta-analysis of 74 published SEM articles, approximately 80% drew conclusions based on sample sizes below the lower bounds needed to draw conclusions that the studies claimed, according to Westland (2010). Generally, larger samples are beneficial in factor analysis to account for any unequal proportions of the variances across indicators, any covariance between indicators and multiple factors, or if there are relatively few indicators per factor (Kline, 2023). Additionally, more complex models require larger samples to estimate additional parameters with reasonable precision, highlighted by a suggestion that journal submission reviewers routinely reject any small SEM analyses (i.e., $N < 200$) for publication when the studied population is not restricted in size because analyzing small samples in SEM can be problematic (Barrett, 2007, as cited in Kline, 2023).

A total of 557,778 eligible federal employees responded to the 2022 OPM FEVS, a response rate of 35.3% across 84 federal agencies in the United States (OPM, 2022a). In this study, I focused only on eligible federal employees who were reportedly under 40. The necessary sample size of 385 to attain adequate statistical power is less than 1% of total respondents, so I was confident that this data set would provide a sample size of federal employees under 40 years old large enough to meet analysis requirements.

Access to the 2022 OPM FEVS Data Files

OPM masks the data files to further reduce the risk of unintentional re-

identification and disclosure of confidential survey responses by focusing on masking two key elements: where the employee works and demographic data (OPM, 2022a). Once the data file was rigorously masked by collapsing agencies that did not meet minimum reporting levels and reducing distinctiveness among demographic categories, the data file was published for free public download with governmentwide reports on the 2022 FEVS public website (i.e., www.opm.gov/fevs). From the main page on the public website, a user can click on the “Public Data File” menu button on the top of the screen and follow the prompts in the form to download the applicable public release data file (see Appendix A). Accessing OPM FEVS reports or public data files requires no additional permissions or registration.

Instrumentation

The OPM FEVS was utilized for this study’s secondary dataset of interest. The OPM FEVS is one of the most extensive nationwide surveys today and was first administered in 2002 as the Federal Human Capital Survey before evolving into the FEVS in 2010 (OPM, n.d.). The instrument is an annual climate survey capturing attitudinal and perceptual data from hundreds of thousands of federal employees, broadly representing the federal workforce (Fernandez et al., 2015; OPM, n.d.; Resh et al., 2021). As outlined in the prior section, the cleaned data files resulting from the implementation of the OPM FEVS are published for free public consumption with governmentwide reports on a public government website (i.e., www.opm.gov/fevs). Further, since I intend to utilize the archival 2022 dataset from the implementation of the 2022 OPM FEVS, I did not intend to employ the instrument itself.

Some key strengths of the OPM FEVS include its generalizability and representativeness of the federal executive workforce since OPM is now able to draw statistically valid samples sufficient to ensure a 99% confidence level of true population estimates (Fernandez et al., 2015; OPM, 2022a). Further, OPM assigns weights to responses to account for any potential nonresponse biases (e.g., undeliverable invites, out of the office recipients, unwillingness to respond) when the survey scores are calculated such that any statistical inferences may be made about the federal employee population. The survey has been revered for its annual frequency to the largest population of federal employees and has shown value in practice and empirical research across the public management and administration domains (Fernandez et al., 2015; O’Keefe et al., 2020; Resh et al., 2021; Somers, 2018).

However, one criticism of OPM FEVS is that capturing a wide range of phenomena was seemingly traded for some quality of measure (Fernandez et al., 2015; Somers, 2018). It is limited in that it only captures a snapshot of employee perceptions regarding aspects of climate and thus are attitudinal measures not to be conflated with employee behaviors. Additionally, there have been inconsistencies in the psychometric qualities reported when using OPM FEVS. Cronbach’s alpha has been the most widely used test reported for internal reliability when summated scales were created and intermittent attention given to discriminant, convergent, and construct validities (Fernandez et al., 2015; Resh et al., 2021; Somers, 2015). That said, given the large scale and scope of the OPM FEVS dataset, there is considerable strength in using the instrument’s data when the limitations are acknowledged, and the data is thoughtfully

applied. The breadth of the dataset provides statistical power that is uncommon in most primary survey studies.

Operationalization of Constructs

Substantial research has been conducted using the OPM FEVS with various independent and dependent variables (Fernandez et al., 2015; Resh et al., 2021; Somers, 2018). However, a significant weakness of using this dataset, or any secondary data, is that measures of theory-driven latent constructs must be constructed a posteriori (Somers, 2018). Careful consideration and rigor are needed when translating latent theoretical constructs into measurement operations to ensure “high levels of correspondence between the properties of theoretical constructs under study and the indicators used to assess those constructs” (Somers, 2018, p. 229). In a thorough synthesis of the research using FEVS, Fernandez et al. (2015) revealed concerns imposed upon measurement validity. Indeed, there needs to be more consistency in the extant research on how items are grouped to measure constructs. This has led to conflicting findings and overlapping of items across scales used to measure distinct constructs. For example, Somers (2018) and Resh et al. (2021) have further highlighted the measurement concerns and shifted the onus to the quality of scholarly works that utilize OPM FEVS. That said, I leaned on auxiliary measurement theory to bridge the gap between concepts and their observable indicators (Blalock, 1968; Sajtos & Magyar, 2016; Somers, 2018). I selected survey items for the latent constructs in this study by paying greater attention to validity issues per recent recommendations (Resh et al., 2021; Somers, 2018) through CFA to properly evaluate construct validity to enhance future research using OPM FEVS.

The following sections include question items from the 2022 OPM FEVS that I initially identified as observable indicators based on theory and prior use in studies involving OPM FEVS for analyses of best fit measure models upon IRB approval. Unless otherwise noted, each item utilized a 5-point Likert-style response scale of *strongly agree, agree, neither agree nor disagree, disagree, and strongly disagree*.

Perceived Organizational Support

Perceived organizational support refers to the employees' perceptions that the organization they work within values their contributions, supports them in completing their day-to-day tasks, and exhibits care for their well-being (Eisenberger et al., 2020; Hngoi et al., 2023; Ko & Hur, 2014; Kurtessis et al., 2017). Items for measurement analysis as a summated scale of observable indicators include:

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

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

Q6 – My talents are used well in the workplace.

Q9 – I have enough information to do my job well.

Q10 – I receive the training I need to do my job well.

Q13 – I have a clear idea of how well I am doing my job.

Q16* – In my work unit, differences in performance are recognized in a meaningful way.

Q47 – My supervisor supports my need to balance work and other life issues.

Q86 – The work I do gives me a sense of accomplishment.

* Item Q16 had the additional option of responding *do not know*.

Employee Satisfaction

Employee satisfaction in this study refers to a general sentiment of contentedness with their job, pay, and the organization (OPM, 2022b; Vesna et al., 2023; Zhao et al., 2020). Questions 43, 68, 69, and 70 are reported by OPM as a composite score called the Global Satisfaction Index (OPM, 2022a). While OPM outlines the overall calculation of the Global Satisfaction Index by averaging the unrounded percent positive of each of the four items, OPM does not appear to report the methodology of indicator selection for the construct. I intend to run measurement analyses as a summated scale of observable indicators on all the following to ensure the best model fit:

Q43 – I recommend my organization as a good place to work.

Q65* – How satisfied are you with your involvement in decisions that affect your work?

Q67* – How satisfied are you with the recognition you receive for doing a good job?

Q68* – Considering everything, how satisfied are you with your job?

Q69* – Considering everything, how satisfied are you with your pay?

Q70* – Considering everything, how satisfied are you with your organization?

* Items Q65, 67, 68, 69, and 70 utilized an alternative 5-point Likert-style scale of *very satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, very dissatisfied*.

Psychological Safety

Psychological safety is conceptualized in this study as employees' sentiment

about their belief in expressing ideas and opinions without the risk of negative consequences (Edmondson & Bransby, 2023; Halliday et al., 2022). In other words, psychological safety refers to the individual's self-belief that their workplace is safe for taking interpersonal risks, such as voicing differing opinions and ideas or acting independently on key decisions (Frazier et al., 2017; Sobiath et al., 2022). Items for measurement analysis as a summated scale of observable indicators include:

Q8* – *I can disclose a suspected violation of any law, rule or regulation without fear of reprisal.*

Q48 – *My supervisor listens to what I have to say.*

Q49 – *My supervisor treats me with respect.*

Q79* – *I am comfortable expressing opinions that are different from other employees in my work unit.*

Q80* – *In my work unit, people's differences are respected.*

* Items 8, 79, and 80 had the option of responding *do not know* or *no basis to judge*.

Burnout

Burnout includes three key dimensions that refer to the extent an employee experiences exhaustion, feelings of cynicism and detachment from their job, and a sense of ineffectiveness or lack of accomplishment at work (Zhang et al., 2022). Items for measurement analysis as a summated scale of observable indicators include:

Q5 – *My workload is reasonable.*

Q12* – *Continually changing work priorities make it hard for me to produce high*

quality work.

Q34* – *Employees in my work unit are typically under too much pressure to meet work goals.*

* Items Q12 and 34 had the additional option of responding *do not know* or *no basis to judge*.

Turnover Intentions

Turnover intent refers to employees' conscious and deliberate sentiment to leave their organization within a defined period of time (Hebles et al., 2022; Lazzari et al., 2022; Zhang et al., 2022). According to Hur and Abner (2024), turnover intention is typically measured by the respondent's disclosed expectation to stay or leave their organization, job search behaviors, or a combination of the two. Turnover intention in this study will be measured based on the former approach and evaluated based on categorical responses to a 2022 OPM FEVS question asking, "*Are you considering leaving your organization within the next year, and if so, why?*" The response options include *yes* or *no*, and if so, *for another job within the Federal Government, outside the Federal Government, or other*. For this study, I collapsed the conditional *yes* responses into one and operationalized turnover intention as a binary *yes/no* variable to best reflect the operational definition used in this study.

Age Consideration for Data Segmentation

The 2022 OPM FEVS collapsed categories of ages into a dichotomous variable of *over/under 40 years old* prior to the public release of the dataset to help protect smaller groups at the younger and older ends of the respondent self-identified age groups (OPM,

2022a). I evaluated only the respondents who self-identified as under 40 years old as a meaningful consideration relative to voluntary turnover intentions in the form of quits in this study.

Data Analysis Plan

The 2022 OPM FEVS dataset was utilized for this study. I retrieved the data file from OPM’s public website (i.e., www.opm.gov/fevs). Before the data files are available for public consumption, OPM ensures that the files have been rigorously cleaned, recoded (e.g., demographic variables where the categories were collapsed to protect anonymity), weighted, and masked (OPM, 2022a). OPM assigns weights to the respondents to indicate the number of individuals in the federal workforce they represent. A significant critique of the OPM FEVS was that OPM did not provide more information about how the weights were developed (Fernandez et al., 2015; Resh et al., 2021). For the 2022 OPM FEVS dataset, “the base weight for a sampled employee is equal to the reciprocal of individual’s selection probability” (OPM, 2022a, p. 87). OPM stratified employees by work unit and executive status, resulting in $H=860$ subgroups and h indexing a specific subgroup. The calculated base weight is attached to each employee in the data file (See Figure 1 for the weighting calculation formulas).

Figure 1

OPM Weighting Formulas for 2022 OPM FEVS

$$N = \sum_{h=1}^H N_h \quad w_{hi} = \frac{N_h}{n_h}$$

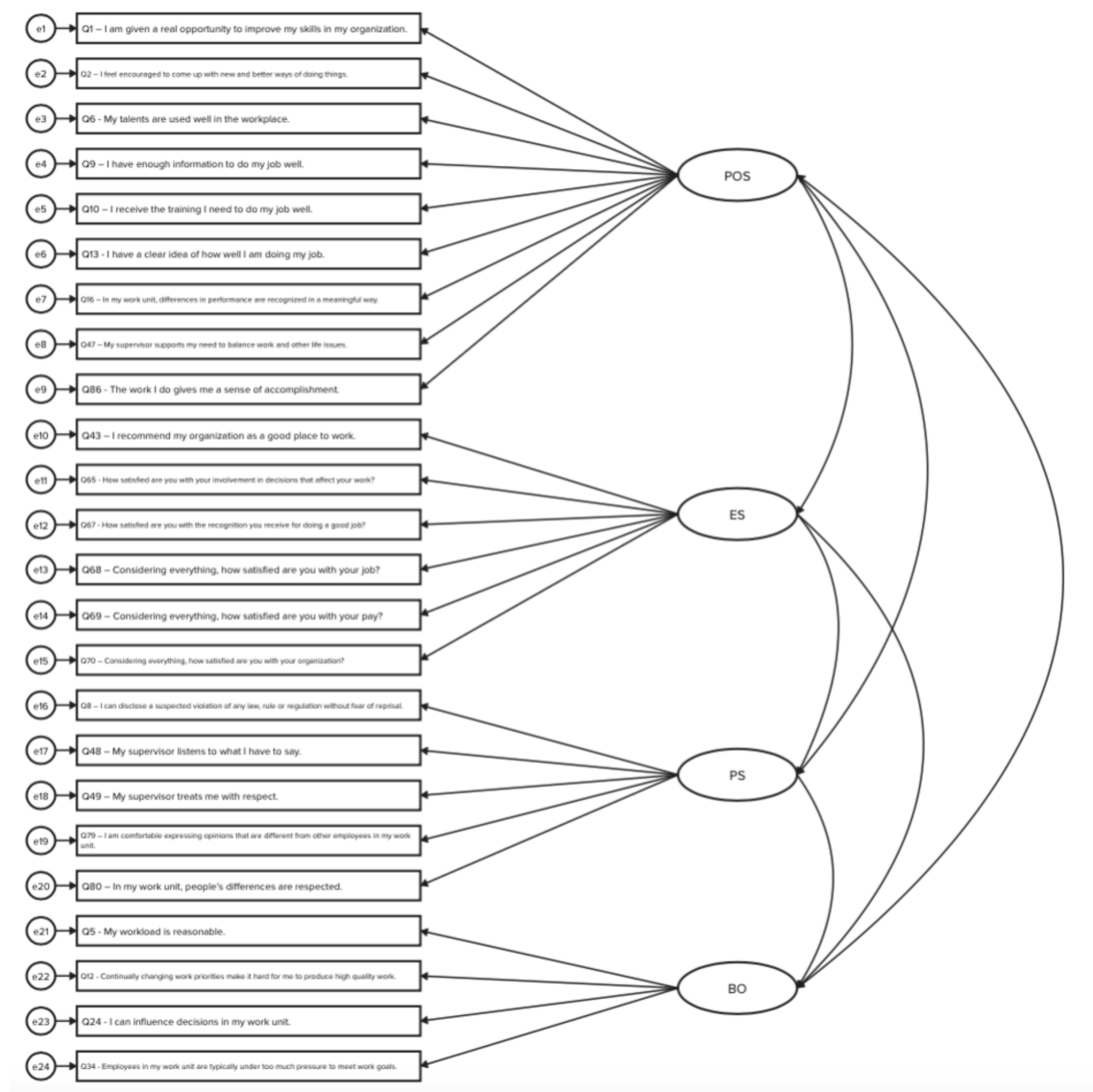
Note. This figure denotes the statistical formulas used to calculate the 2022 OPM FEVS dataset sample weights where H = nonoverlapping groups consisting of N_h employees in each subgroup, N = total frame count. Further, in the right formula, the base weight for the i^{th} randomly sampled employee in subgroup h was calculated where n_h = sample size for h^{th} subgroup, and N_h = frame count for the h^{th} subgroup (OPM, 2022a).

Model Generation

I planned to utilize R with the lavaan package for the latent variable modeling to explore the research questions (v0.6-17; Kline, 2023; Rosseel, 2012). In the first phase of analysis, measurement model generation, the latent study variables (i.e., perceived organizational support, employee satisfaction, psychological safety, and burnout) were formed from summated 2022 OPM FEVS question item indicators. I intended to evaluate construct validity using the SEM technique of CFA of the measurement model in [Figure 2](#) to evaluate the direct effects of the latent variables on their respective observable indicators (Kline, 2023; Mueller & Hancock, 2010). CFA models are commonly used to test the construct validity of latent factors underlying survey items and are recommended as a best practice for research involving FEVS data (Resh et al., 2021; Somers, 2018; Whittaker & Schumaker, 2022). If the measure model was initially unsatisfactory, I refined and respecified the model by removing poorly correlated FEVS survey items to achieve the best model fit for measurement.

Figure 2

Diagram of the CFA for Measurement Model Generation



Note. This figure denotes the observable indicators from question items on the 2022 OPM FEVS and their hypothesized relationships with latent variables of perceived organizational support (POS), employee satisfaction (ES), psychological safety (PS), and burnout (BO).

The primary analysis included the subsequent fit measurement model in the specification of the structural models intended to assess the research questions (see Figures 3 through 9).

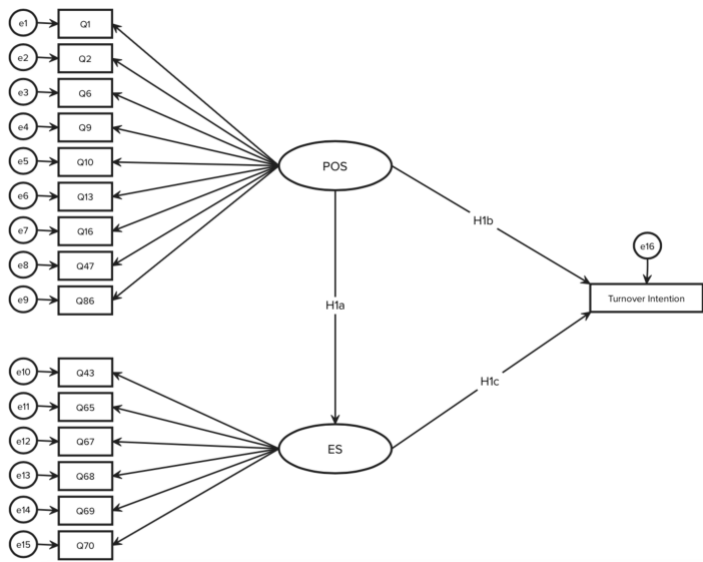
RQ 1

RQ1: What is the relationship between perceived organizational support, employee satisfaction, and turnover intentions?

There exists a direct relationship between perceived organizational support and employee satisfaction (H1a) and turnover intention (H1b), and a direct relationship between employee satisfaction and turnover intention (H1c).

Figure 3

Diagram of SEM to Test H1a, H1b, and H1c



Note. The observable indicators for perceived organizational support (POS) and employee satisfaction (ES) may be respecified in this diagram according to the CFA results for measurement model best fit.

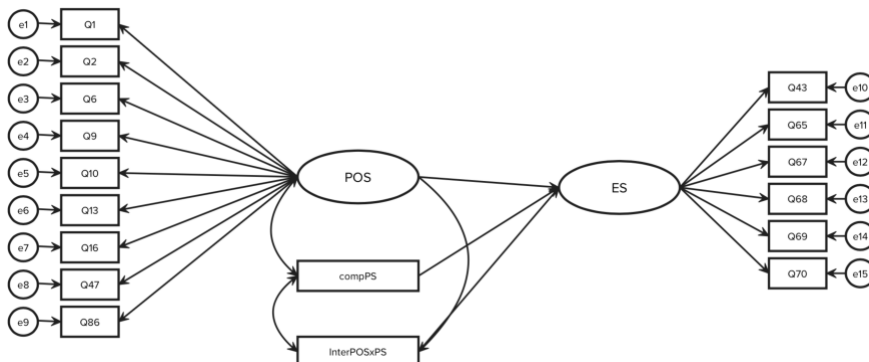
RQ 2

RQ2: Does psychological safety moderate the relationships between perceived organizational support, employee satisfaction, and turnover intentions?

Psychological safety moderates the relationships between perceived organizational support and employee satisfaction (H2a), perceived organizational support and turnover intention (H2b), and employee satisfaction and turnover intention (H2c).

Figure 4

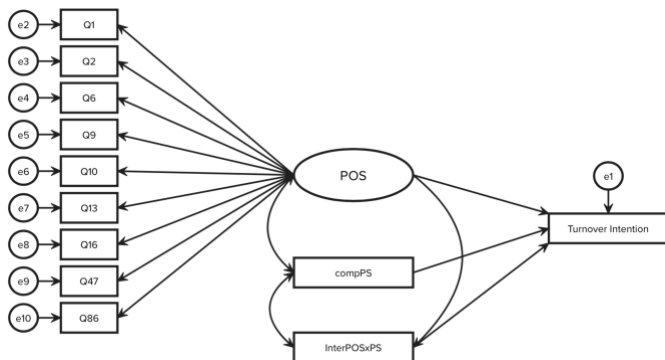
Diagram of SEM to Test H2a



Note. The observable indicators for perceived organizational support (POS) and employee satisfaction (ES) may be respecified in this diagram according to the CFA results for measurement model best fit.

Figure 5

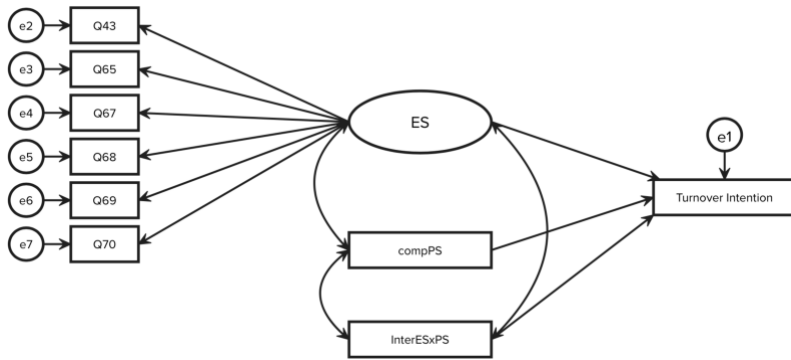
Diagram of SEM to Test H2b



Note. The observable indicators for perceived organizational support (POS) may be respecified in this diagram according to the CFA results for measurement model best fit.

Figure 6

Diagram of SEM to Test H2c



Note. The observable indicators for employee satisfaction (ES) may be respecified in this diagram according to the CFA results for measurement model best fit.

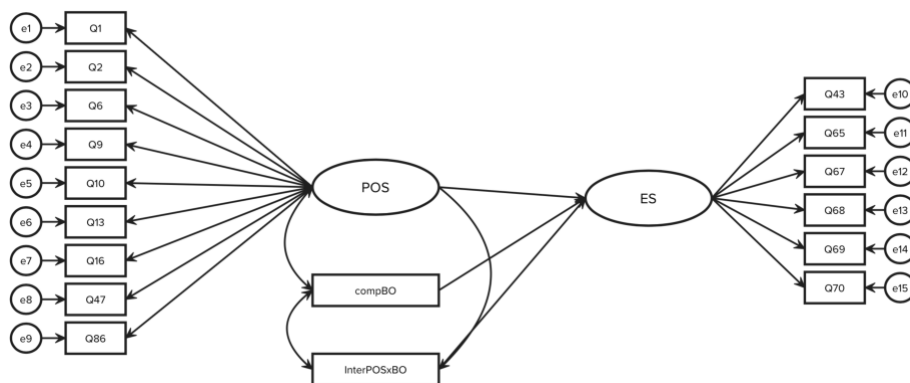
RQ 3

RQ3: Does burnout moderate the relationships between perceived organizational support, employee satisfaction, and turnover intentions?

Burnout moderates the relationships between perceived organizational support and employee satisfaction (H3a), perceived organizational support and turnover intention (H3b), and employee satisfaction and turnover intention (H3c).

Figure 7

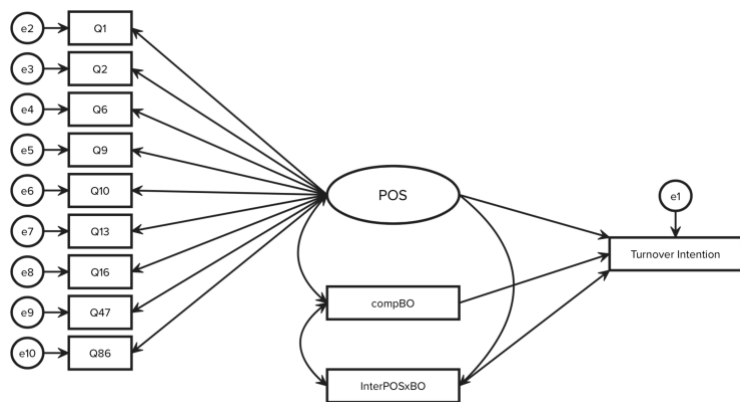
Diagram of SEM to Test H3a



Note. The observable indicators for perceived organizational support (POS) and employee satisfaction (ES) may be respecified in this diagram according to the CFA results for measurement model best fit.

Figure 8

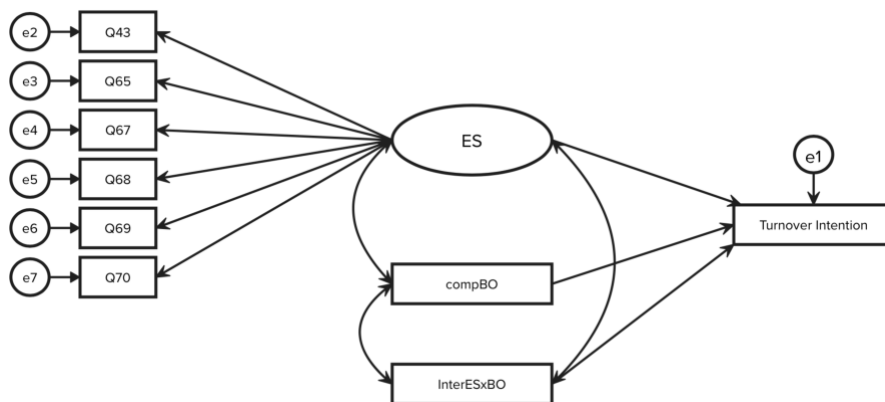
Diagram of SEM to Test H3b



Note. The observable indicators for perceived organizational support (POS) may be respecified in this diagram according to the CFA results for measurement model best fit.

Figure 9

Diagram of SEM to Test H3c



Note. The observable indicators for employee satisfaction (ES) may be respecified in this diagram according to the CFA results for measurement model best fit.

Threats to Validity

Validity is closely related to truth in research. In other words, how accurately do the results reflect the phenomenon of interest in the study (Burkholder et al., 2020)? Very large samples can pose various threats to the validity and interpretation of the results. The archival data that will be used in this study, even though restricted to those federal employees under 40 years old, will likely include a very large sample size to analyze (e.g., tens or hundreds of thousands of observations). This section discusses some potential threats specific to this study.

Threats to External Validity

External validity primarily refers to how true or generalizable the findings are across other settings or populations beyond those in the specific study (Burkholder et al., 2020; Lucas, 2003). A common threat to external validity in SEM, particularly with large

sample sizes, is overfitting. Overfitting a model refers to when a model fits the sample data very well but likely will not replicate with external data (Danks et al., 2020; Frost, 2017; Kline, 2023). In other words, the model starts to fit the random error or noise in the data more than the intended relationships between the variables. Large sample sizes can heighten this because they can become very sensitive to small differences in the data, implying statistical significance but with very small effects.

Threats to Internal Validity

Internal validity refers to how well the study was conducted and how confident a reader may be in how reasonable the inferences from the results are (Burkholder et al., 2020). Instrumentation, difficulty establishing causal inferences, and additive and interactive effects are potential threats to the internal validity of this study.

Instrumentation addresses all the tools and methods used to measure variables of interest, and issues in instrumentation can introduce significant errors in the collection process that make it difficult to establish clear predictive relationships. The type of instrumentation threat may include changes in the measurement tool over time, which affect the consistent variable measurement, or collector biases that introduce inconsistencies in how the data is scored or collected (Shadish et al., 2002). One way this has been mitigated is through the consistent procedures for collecting OPM FEVS responses under Westat's guidance since 2004, as described above in the archival data collection section. What cannot be controlled for is the environment in which the respondent takes the survey. For example, one participant may take the time to complete the survey early one morning in the office before anyone else is there. Another may

decide to complete it at the end of the day, near the end of the open collection period after a stressful workday. These are threats to instrumentation that have not been controlled.

Additive effects occur when two or more threats combine to influence the outcome variable so that their effects are independent but can be added together (Shadish et al., 2002). Interactive effects are more compounding or multiplicative. They occur when one effect depends on the level of another cause or variable, and their combined effect is more than the sum of their individual effects. Shadish et al. (2002) note that interactive effects may be more challenging to detect and interpret than additive effects, but one way to address this threat is through larger sample sizes and more complex statistical models that can identify and quantify the interactions, such as the use of SEM in this study.

Threats to Construct Validity

Construct validity encompasses a unifying concept that the underlying theoretical concepts have been accurately defined, operationalized, and measured (Burkholder et al., 2020; Resh et al., 2021; Somers, 2018). Measurement error is a significant threat, particularly in archival data, because the original instrument may not have been designed to measure the specific constructs of interest, the items may be biased or poorly written, they may include composite scales without reported psychometrics, or otherwise not provide adequate information to account for systematic or random measurement errors. To mitigate some of the measurement error threats posed in this study, I intended to deploy CFA to develop and assess the measurement models using multiple indicators for the latent variables (Kline, 2023; Resh et al., 2021; Somers, 2018). While measurement

error may never be eliminated, particularly with archival data, using CFA and SEM will aid in assessing model error to improve the validity of any conclusions drawn in this study.

Ethical Procedures

I only utilized archival data from the 2022 OPM FEVS survey in this study. Using archival data can be a highly ethical practice because it maximizes the value of investment in data collection and reduces the collection burden on respondents (Tubaro, n.d.). However, it is still crucial to consider ethical standards such as ensuring that the researcher cannot identify respondents, and outcomes of the analyses will not heighten the risk of re-identifying respondents, consent is reasonably presumed, and the archival data will not cause any distress or damage.

The publicly released and accessible data file to be utilized in this study has been masked by collapsing agencies, work units, and demographic categories to reduce the risk of participant identification significantly. The survey was a web-based, self-administered survey, and employees were allowed official work time to complete it if desired. Consent is reasonably assumed. See the OPM's (2022a) technical report for full details on the data masking methodology for disclosure avoidance, collection procedures, and data cleaning.

Summary

I intended to explore the relationships between perceived organizational support, employee satisfaction, psychological safety, burnout, and turnover intentions among federal employees under 40 years old in this study. Archival data from the 2022 OPM FEVS was analyzed using SEM techniques. The analysis proceeded in two phases. First,

CFA was conducted to evaluate the measurement model's construct validity for each of the latent variables of perceived organizational support, employee satisfaction, psychological safety, and burnout. This involved assessing how well the theorized factor structures explained the patterns of covariation among the observed indicator survey items intended to measure each construct.

Once adequate measurement models were established, the second phase specified a series of structural regression models to test the hypothesized relationships between the variables, including the potential moderating effects of psychological safety and burnout. I intended to emphasize the antecedents and outcomes associated with turnover intention, a critical issue for workforce retention. The following results section reports the findings from this comprehensive analysis and aimed to offer insights into the factors shaping job attitudes and retention risks among the next generation of federal employees under 40.

Chapter 4: Results

In this study, I investigated the factors influencing turnover intentions among federal employees under 40, focusing on the relationships between perceived organizational support, employee satisfaction, psychological safety, and burnout. Employing a quantitative, nonexperimental approach, I examined three primary research questions related to the relationships between perceived organizational support, employee satisfaction, and turnover intentions; the moderating effect of psychological safety on these relationships; and the moderating effect of burnout on these relationships.

This chapter presents the results of the statistical analyses structured to address each research question and its associated hypotheses. First is a description of the sample demographics, followed by an explanation of the measurement model generation process. The main analysis section details the findings from SEM and regression analyses if SEM failed to find a stable solution for each research question. I conclude with a summary of key findings, setting the stage for the discussion and implications in Chapter 5.

Archival Data Collection and Demographics

The 2022 OPM FEVS dataset utilized for this analysis is publicly available archival data. As detailed in Chapter 3, the survey was initially administered by OPM as a web-based survey emailed to eligible federal employees. The primary contractor, Westat, provided technical support during the 6-week data collection period from late May to early July 2022. The survey was administered in two waves, with agencies starting on May 31 or June 6.

Of the 1,582,112 federal employees in the sampling frame, 557,778 responded to

the 2022 survey. This represented a 35.3% response rate across the 84 participating federal agencies. The sampling frame was generally representative of the federal workforce, with a few exceptions. It included permanent, full-time, non-political employees as of November 2021. However, despite doing so in prior years, the Department of Veterans Affairs, NASA, SEC, and the U.S. African Development Foundation did not participate in the 2022 survey. Some agencies did expand eligibility to include non-permanent and additional work schedules. Political appointees, contractors, and non-federal workers remained ineligible.

Table 1

Sample Demographics for Measurement Model Generation

Variable	Description	Frequency	Percent
Racial Category	White	336809	60.4
	Black or African American	69549	12.5
	Asian	27526	4.9
	Other groups	31836	5.7
	Chose not to answer	92058	16.5
Hispanic, Latino, or Spanish origin	Yes	49329	8.8
	No	440061	78.9
	Chose not to answer	68388	12.3
Disability	Yes	80092	14.4
	No	416034	74.6
	Chose not to answer	61652	11.1
Age Group	Under 40	117418	21.1
	40 or Older	378696	67.9
	Chose not to answer	61664	11.1
Supervisory Status	Non-Supervisor/Team Leader	400822	71.9
	Supervisor/Manager/Executive	116062	20.8
	Chose not to answer	40894	7.3
Federal Tenure	Ten year or fewer	199395	35.7
	Eleven to 20 years	186040	33.4
	More than 20 years	13861	23.5
	Chose not to answer	41482	7.4
Military Status	Military Service	142019	25.5
	No Prior Military Service	374700	67.2
	Chose not to answer	41059	7.4
Sex	Male	261253	46.8
	Female	233763	41.9
	Chose not to answer	62762	11.3

Within the sample, 336,809 (60.4%) identified as White (see Table 1). Of those

who responded, 80,092 (14.4%) identified as having a disability. In terms of tenure within the federal government, 199,395 (35.7%) indicated they had been employed for 10 or fewer years. The majority of respondents, 400,822 (71.9%), indicated that they were in a non-supervisor/team leader role. Regarding age, OPM collapsed age groups into under 40 and 40 or older for privacy before publishing the data set. Age demographic responses indicated that 378,696 (67.9%) were 40 or older at the time of the survey.

Measurement Model Generation

I conducted CFA in R Studio to generate the measurement model proposed in this study. Model fit was assessed by evaluating the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR) measures. As benchmarks of a good fit, I sought values close to or larger than 0.90 for CFI and TLI and lower than 0.07 for the RMSEA and SRMR (Asparouhov & Muthén, 2021; Hu & Bentler, 1999). These fit indices are acceptable alternatives to the χ^2 goodness-of-fit statistic, which assesses the magnitude of discrepancy between the sample and fitted covariance matrices, particularly in this large sample size because it is highly sensitive to the sample size (Bergh, 2015; Hu & Bentler, 1999).

The original proposed measurement model did not produce adequate model fit. I evaluated the residuals table and modification indices to begin making modifications to generate a better fitting model for the variables in the study. After evaluating the factor loadings and considering the theoretical alignment, I ultimately made eight modifications to the model. One fundamental change was the reallocation of Q86 (i.e., “The work I do

gives me a sense of accomplishment”) from perceived organizational support to employee satisfaction. This decision was based on the consistently high loading and covariance with Q86 on employee satisfaction and its conceptual fit within the operational definition of the employee satisfaction construct. Item Q47 (i.e., “My supervisor supports my need to balance work and other life issues”) was ultimately removed from the model due to its high cross-loadings on multiple variables. The substantial multicollinearity associated with this item indicated that it did not provide a unique, meaningful contribution to any single variable within the model, potentially confounding the interpretation of the factor structure. Lastly, I allowed additional covariances between Q9 (i.e., “I have enough information to do my job well”) and Q10 (i.e., “I receive the training I need to do my job well”) in perceived organizational support, Q79 (i.e., “I am comfortable expressing opinions that are different from other employees in my work unit”) and Q80 (i.e., “In my work unit, people’s differences are respected”) and Q48 (i.e., “My supervisor listens to what I have to say”) and Q49 (i.e., “My supervisor treats me with respect”) in psychological safety, Q12 (i.e., “Continually changing work priorities make it hard for me to produce high quality work”) and Q34 (i.e., “Employees in my work unit are typically under too much pressure to meet work goals”) and Q5 (i.e., “My workload is reasonable”) with Q34 (i.e., “Employees in my work unit are typically under too much pressure to meet work goals”) in burnout, and Q68 (i.e., “Considering everything, how satisfied are you with your job”) and Q86 (i.e., “The work I do gives me a sense of accomplishment”) in employee satisfaction. The decision to include these additional covariances is justified based on the theoretical

relationships among the constructs measured by the survey items. The wording of the questions suggests that the variables are conceptually related, supporting the inclusion of the specified covariances in the model. See Appendix B for a summary of final observable item questions as they map to relative latent variables in the final model and Table 2 for fit indices results of the modifications.

Table 2

Summary of CFA Results for Measurement Model Generation

Model	Modification	Fit Indices			
		CFI > .90	TLI > .90	RMSEA < .07	SRMR < .07
Model 1		.841	.822	.103	.074
Model 2	Q48 ~~ Q49	.872	.856	.092	.059
Model 3	Q79 ~~ Q80	.883	.867	.089	.053
Model 4	Q9 ~~ Q10	.895	.881	.084	.051
Model 5	Removed Q47	.926	.915	.072	.042
Model 6	Reallocated Q86 to ES	.931	.920	.070	.42
Model 7	Q12 ~~ Q34	.937	.929	.066	.039
Model 8	Q68 ~~ Q86	.942	.932	.064	.038
Model 9	Q5 ~~ Q34	.945	.936	.063	.036

Note. CFI = Comparative Fit Index. TLI = Tucker Lewis Index. RMSEA = Root Mean Square Error of Approximation. SRMR = Standardized Root Mean Square Residual (SRMR). ~~ denotes additional covariance allowed between items. Model 9 is the final generated measurement model.

I decided to cease modifications to the model and accept the current goodness of fit indices when the modification indices no longer suggested any theoretically justifiable or substantively meaningful potential changes. This decision was guided by the principle of parsimony, aiming to maintain a model that explains the data with the fewest possible parameters. The resulting measurement model aligns well with the theoretical framework underlying this study.

For methodological rigor, I examined the fit between single- and four-factor models. The results indicated that the four-factor model was statistically superior to the single-factor model in terms of all fit indices assessed and change in the χ^2 value given

the degrees of freedom values. These results further validated the complete four-factor model as the best fit for the data. See Table 3 for the fit indices summary between the models.

Table 3

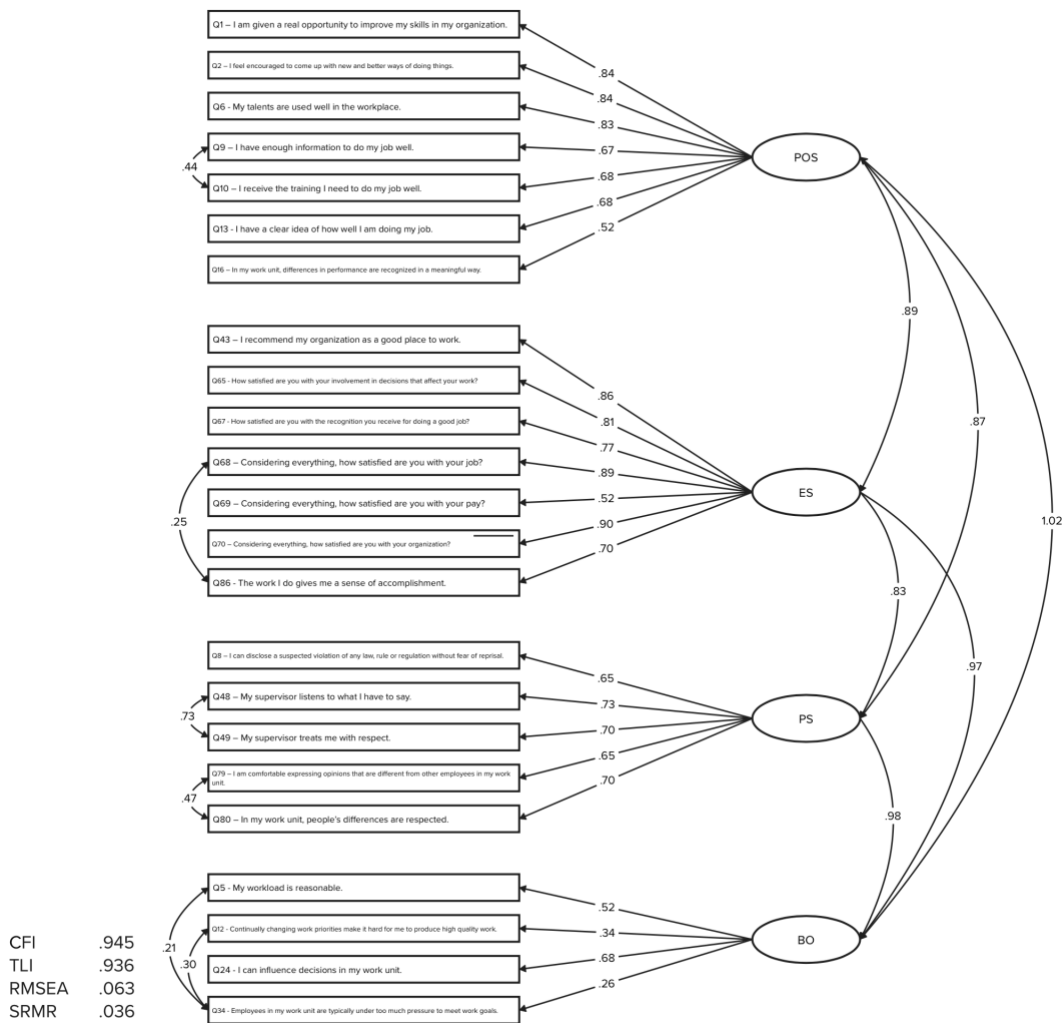
Summary of Single-Factor Model CFA and Four-Factor Model CFA

Model	Fit Indices					χ^2
	CFI $\geq .95$	TLI $\geq .95$	RMSEA $< .07$	SRMR $< .07$	<i>df</i>	
Single-Factor Model	.802	.782	.115	.058	230	1441313.257*
Complete Four-Factor Model	.945	.936	.063	.036	218	403742.457*

Note. CFI = Comparative Fit Index. TLI = Tucker Lewis Index. RMSEA = Root Mean Square Error of Approximation. SRMR = Standardized Root Mean Square Residual (SRMR). *df* = degrees of freedom. χ^2 = chi square value. * $p < .001$

Figure 10

Final Generated Measurement Model



Note. POS = perceived organizational support. ES = employee satisfaction PS = psychological safety. BO = burnout. One directional arrows = factor loadings. Bidirectional arrows = correlations. Circles = latent variables. Rectangles = observed indicators (i.e., questionnaire items).

Main Analysis Results

As previously discussed, I was focused more on quits than retirements in terms of turnover intentions. Insights from 2021 fiscal trends indicate that turnover calculations were comprised primarily of quits for federal employees under 49 years old and shifted considerably to primarily retirements for those over 50 (Partnership for Public Service, n.d.). OPM FEVS currently breaks age demographics into under 40 and over 40. Since 2021 trends show retirements start to factor in at the 40–49 age bracket, I was primarily interested in only the age group under 40 ($n = 117,418$) for the hypotheses testing in this main analysis. To clean the data for analysis, I filtered out respondents over the age of 40, collapsed the three conditional “yes” responses for turnover intention into a single “yes” response, removed all questions not included in the measurement model, responses of “X” that indicated “Do Not Know” or “No Basis to Judge” for items Q8, Q16, Q34, Q79, and Q80, and all missing or skipped answers. The sample size for the final analysis was 86,639 federal employee respondents.

Sample Demographics

From the sample, 61,497 (71.0%) identified as White (see Table 4). Of those who responded, 9,864 (11.4%) identified as having a disability. In terms of tenure within the federal government, the majority of this under 40 age group, 64,365 (74.3%), indicated they had been employed 10 or fewer years. Most respondents, 74,922 (86.5%), indicated that they were in a non-supervisor/team leader role. In terms of sex, the sample was well balanced, with 43,396 (50.1%) identified as male and 42,568 (49.1%) identified as female. The majority, 74,080 (85.5%), identified as having no prior military service.

Table 4*Sample Demographics for Main Model Analysis*

Variable	Description	Frequency	Percent
Racial Category	White	61497	71.0
	Black or African American	8399	9.7
	Asian	4974	5.7
	Other groups	5850	6.8
	Chose not to answer	5919	6.8
Hispanic, Latino, or Spanish origin	Yes	10758	12.4
	No	74157	85.6
	Chose not to answer	1724	2.0
Disability	Yes	9864	11.4
	No	75843	87.5
	Chose not to answer	932	1.1
Age Group	Under 40	86639	100.0
Supervisory Status	Non-Supervisor/Team Leader	74922	86.5
	Supervisor/Manager/Executive	11562	13.3
	Chose not to answer	155	0.2
Federal Tenure	Ten year or fewer	64365	74.3
	Eleven to 20 years	22027	25.5
	More than 20 years	123	0.1
	Chose not to answer	124	0.1
Military Status	Military Service	12458	14.4
	No Prior Military Service	74080	85.5
	Chose not to answer	101	0.1
Sex	Male	43396	50.1
	Female	42568	49.1
	Chose not to answer	675	0.8

Model Testing of Research Question 1

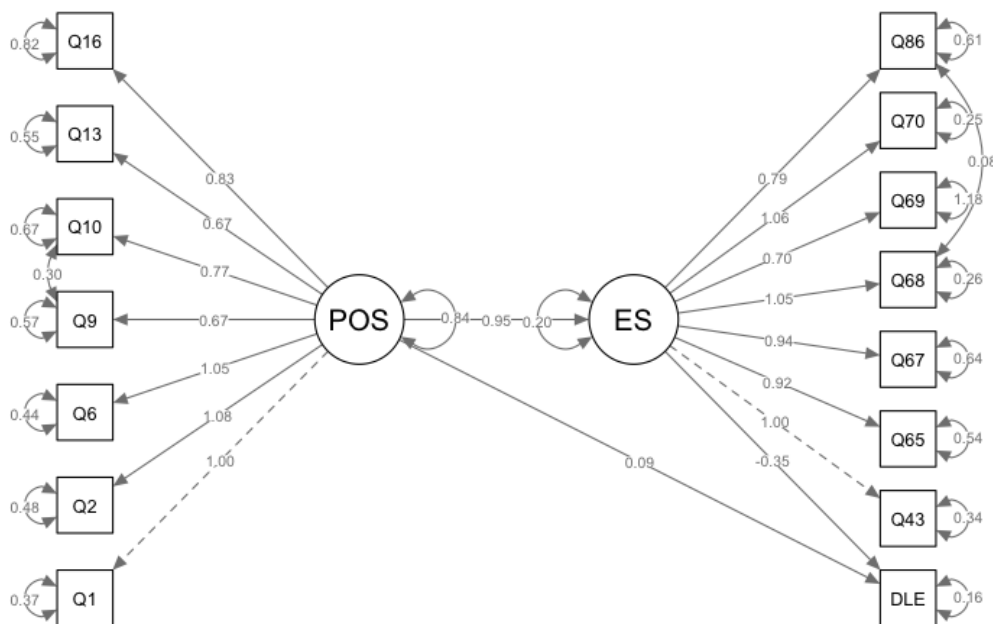
The first research question examined the relationship between perceived organizational support, employee satisfaction, and turnover intentions. I hypothesized that there exists a direct relationship between perceived organizational support and employee satisfaction (H1a) and turnover intention (H1b), and a direct relationship between employee satisfaction and turnover intention (H1c).

Hypothesis H1a

I conducted a SEM to examine the relationships between perceived organizational support, employee satisfaction, and turnover intention. The model demonstrated acceptable fit to the data (CFI = .949; TLI = .938; RMSEA = .078, 90% CI [.077, .078]; SRMR = .036). See Figure 11 for the full path diagram of the model.

Figure 11

Path Diagram of Research Question 1 Results



Note. POS = perceived organizational support. ES = employee satisfaction DLE = Intention to leave question. Arrow = factor loadings. Circles = latent variables. Rectangles = observed indicators (i.e., questionnaire items). Small arrow pointing back to the circle or rectangle represent error variances.

Hypothesis H1a, which predicted a direct relationship between perceived organizational support and employee satisfaction, was supported. Perceived organizational support had a strong positive effect on employee satisfaction ($\beta = .954$,

$SE = .004, p < .001$). See Figure 12 for the scatterplot examined with a fitted regression line that corroborated the statistical findings in the model.

Hypotheses H1b and H1c

Hypotheses H1b and H1c, which predicted a direct relationship between perceived organizational support and turnover intention and employee satisfaction and turnover intention, respectively, were also supported through additional analyses. Initially, in the structural model, perceived organizational support had a small positive effect on turnover intention ($\beta = .091, SE = .005, p < .001$), indicating that higher perceived organizational support was associated with a slightly higher likelihood of respondents intending to leave the organization which is counterintuitive to the direction expected. Employee satisfaction had a moderate negative effect on turnover intention ($\beta = -.346, SE = .004, p < .001$).

See Figure 13 for boxplots illustrating the relationships between turnover intention and both perceived organizational support and employee satisfaction. The visual representations suggested a negative relationship between perceived organizational support and turnover intention, which aligns with the theoretical framework but contradicts the small positive coefficient ($\beta = .091$) found in the SEM. This discrepancy warranted further investigation. The correlation between perceived organizational support and employee satisfaction was extremely high ($r = 0.9343, p < 0.001$), suggesting severe multicollinearity in the SEM. The strong correlation could explain the suppression effect observed, where perceived organizational support showed a positive relationship with intention to leave in the SEM, contrary to its negative bivariate correlation. To further

investigate, I conducted two separate SEMs to examine the individual effects of perceived organizational support and employee satisfaction on intention to leave.

The perceived organizational support-only model demonstrated acceptable fit (CFI = 0.968, TLI = 0.953, RMSEA = 0.081) and indicated a significant negative relationship between perceived organizational support and respondents' intention to leave ($\beta = -0.235$, $SE = 0.002$, $p < .001$). This model explained 20.1% of the variance in intention to leave ($R^2 = 0.201$). The employee satisfaction-only model showed excellent fit (CFI = 0.997, TLI = 0.996, RMSEA = 0.027), revealing a strong, significant negative relationship between employee satisfaction and the respondents' intention to leave ($\beta = -0.673$, $SE = 0.004$, $p < .001$). This model accounted for 42.4% of the variance in intention to leave ($R^2 = 0.424$).

These findings suggest that both perceived organizational support and employee satisfaction are negatively associated with turnover intention, supporting hypotheses H1b and H1c. Employee satisfaction had a stronger individual effect on reducing turnover intentions than perceived organizational support. The high correlation between perceived organizational support and employee satisfaction previously reported ($r = 0.934$, $p < .001$) suggests these constructs may be closely related in this sample, potentially measuring overlapping aspects of employees' organizational experiences. Given the multicollinearity observed when both perceived organizational support and employee satisfaction were included in the same model, these individual models provide a clearer picture of each construct's relationship with turnover intentions. See Figures 14 and 15 for path diagrams of the perceived organizational support-only and employee

satisfaction-only models, respectively.

Figure 12

Scatterplot for the Relationship Between Perceived Organizational Support and Employee Satisfaction

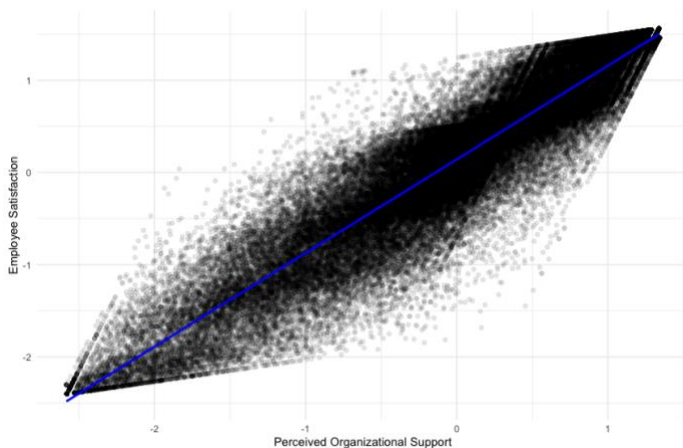


Figure 13

Boxplots for the Effects of Perceived Organizational Support and Employee Satisfaction on Respondents' Intention to Leave

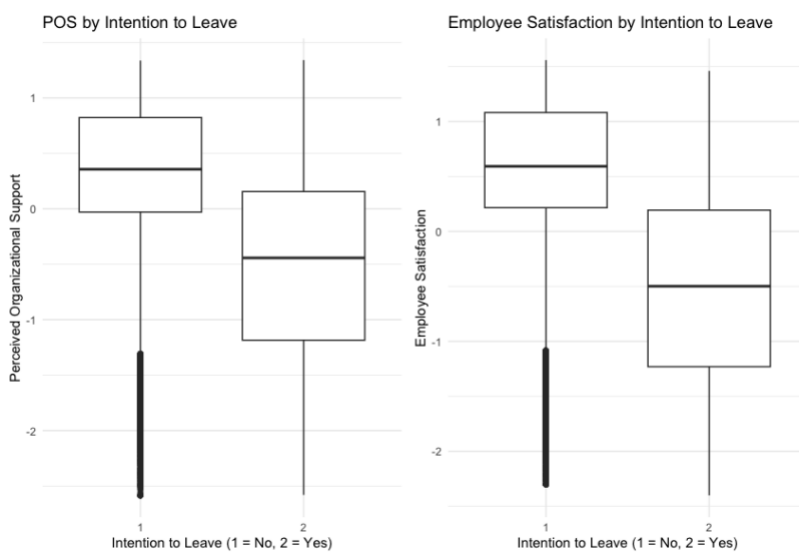
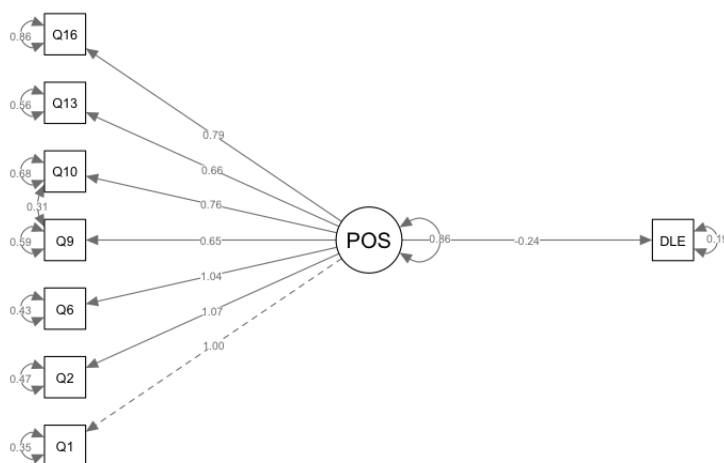
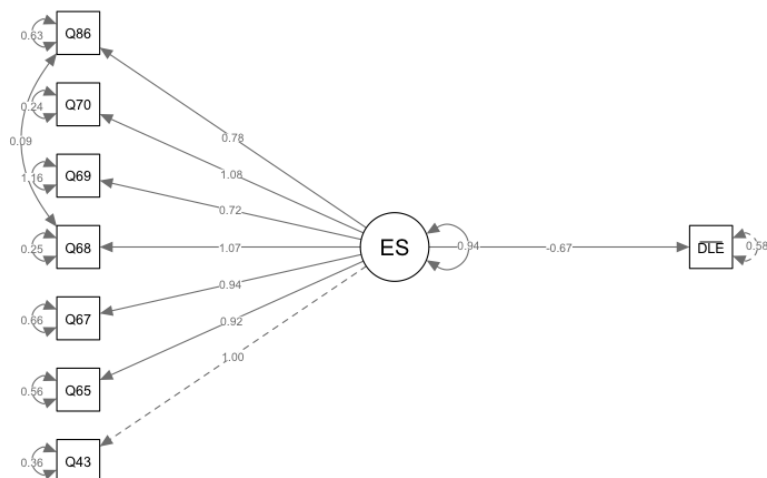


Figure 14*Path Diagram of Perceived Organizational Support-Only Model*

Note. POS = perceived organizational support. DLE = Intention to leave question. Arrow = factor loadings. Circles = latent variables. Rectangles = observed indicators (i.e., questionnaire items). Small arrow pointing back to the circle or rectangle represent error variances.

Figure 15*Path Diagram of Employee Satisfaction-Only Model*

Note. ES = employee satisfaction DLE = Intention to leave question. Arrow = factor loadings. Circles = latent variables. Rectangles = observed indicators (i.e., questionnaire items). Small arrow pointing back to the circle or rectangle represent error variances.

Model Testing of Research Question 2

Research question 2 inquired if psychological safety moderates the relationships between perceived organizational support, employee satisfaction, and turnover intentions. I hypothesized that psychological safety moderates the relationships between perceived organizational support and employee satisfaction (H2a), perceived organizational support and turnover intention (H2b), and employee satisfaction and turnover intention (H2c).

Hypothesis H2a

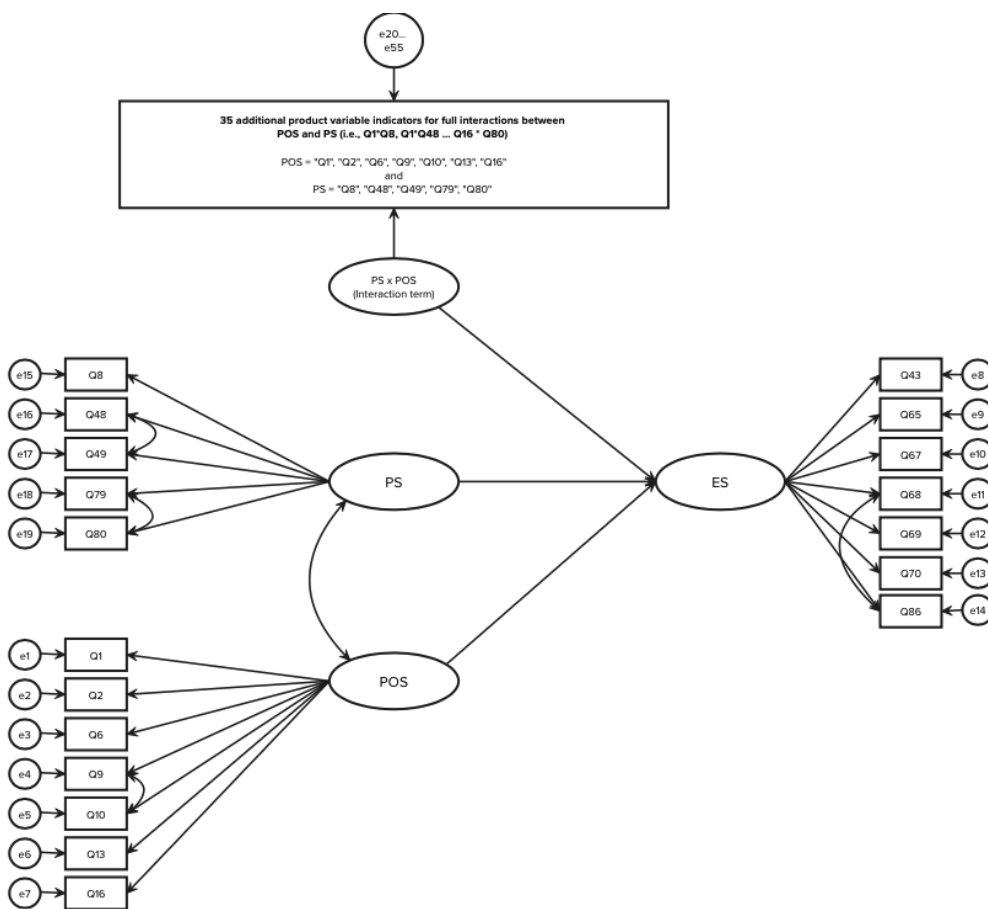
To test H2a, I first evaluated the construct validity of the measurement model, which provided a good fit (CFI = .955; TLI = .947; RMSEA = .065, 90% CI [.065, .066]; SRMR = .033), providing the foundation needed for further SEM to test the hypothesis. See Appendix C for full factor loadings. Thus, I conducted a SEM using maximum likelihood with 86,639 observations using perceived organizational support as the predictor, employee satisfaction as the outcome, and psychological safety as the moderator with full latent variables. See [Figure 16](#) for the structural overview. All latent variables demonstrated acceptable to good factor loadings. For perceived organizational support, standardized factor loadings ranged from .631 to .829. Employee satisfaction had standardized factor loadings ranging from .531 to .900. Psychological safety showed standardized factor loadings between .641 and .736. However, the moderated model demonstrated poor fit to the data (CFI = .555; TLI = .534; RMSEA = .129, 90% CI [.129, .129]; SRMR = .079).

There was a significant positive relationship between perceived organizational support and employee satisfaction ($\beta = .725$, $SE = .007$, $p < .001$). Additionally,

psychological safety had a significant positive relationship with employee satisfaction ($\beta = .192, SE = .008, p < .001$). The interaction term between perceived organizational support and psychological safety showed a very small, albeit statistically significant, effect on employee satisfaction ($\beta = .053, SE = .002, p < .001$). See [Figure 17](#) for the moderation results at the latent variable level.

Figure 16

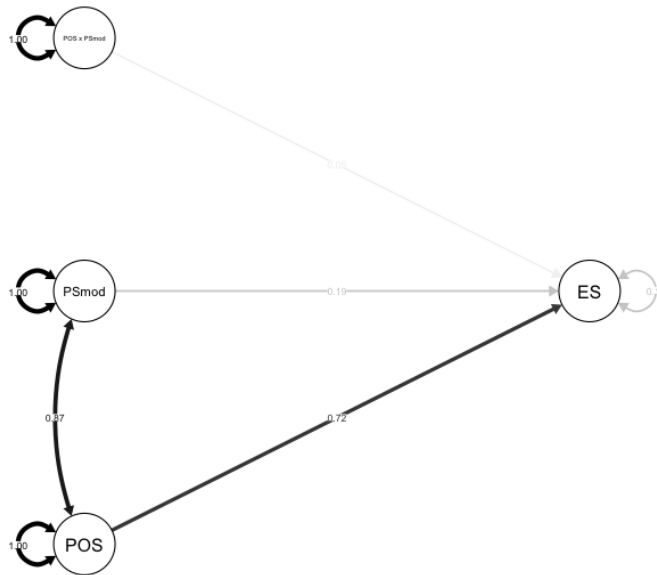
Structural Overview of Model for H2a



Note. POS = perceived organizational support. PS = psychological safety. ES = employee satisfaction.
 PS x POS = interaction variable. Arrow = factor loadings. Circles = latent variables. Rectangle = observable variables.

Figure 17

Moderation Results for H2a at the Latent Variable Level

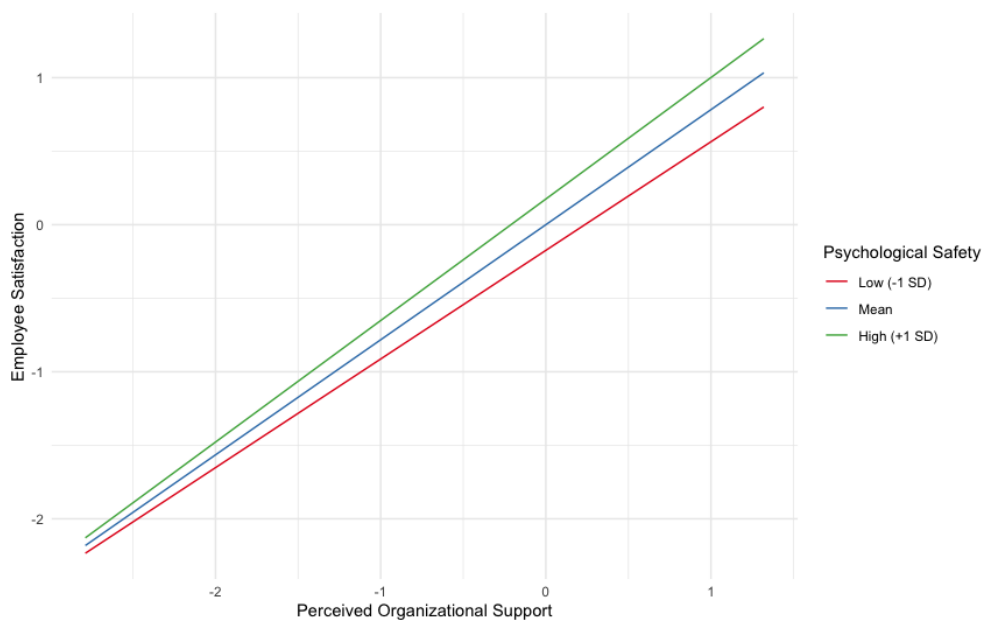


Note. POS = perceived organizational support. ES = employee satisfaction. PSmod = psychological safety moderation variable. POS x PSmod = interaction variable. Arrow = factor loadings. Circles = latent variables. Small arrow pointing back to the circle or rectangle represent error variances.

When I included the interaction term between perceived organizational support and psychological safety, the result indicated a very large effect size ($f^2 = 4.005$), substantially improving the model's explanatory power. The plot in [Figure 18](#) illustrates the moderating effect of psychological safety on the relationship between perceived organizational support and employee satisfaction. It indicates an overall positive relationship with high psychological safety and implies that when psychological safety is high, the relationship is strongest, but when psychological safety is low, it is still positive, though weaker. The differences between the slopes are noticeable but not dramatic, supporting the small moderation effect.

Figure 18

Moderating Effect of Psychological Safety on the Relationship Between Perceived Organizational Support and Employee Satisfaction



Hypothesis H2b

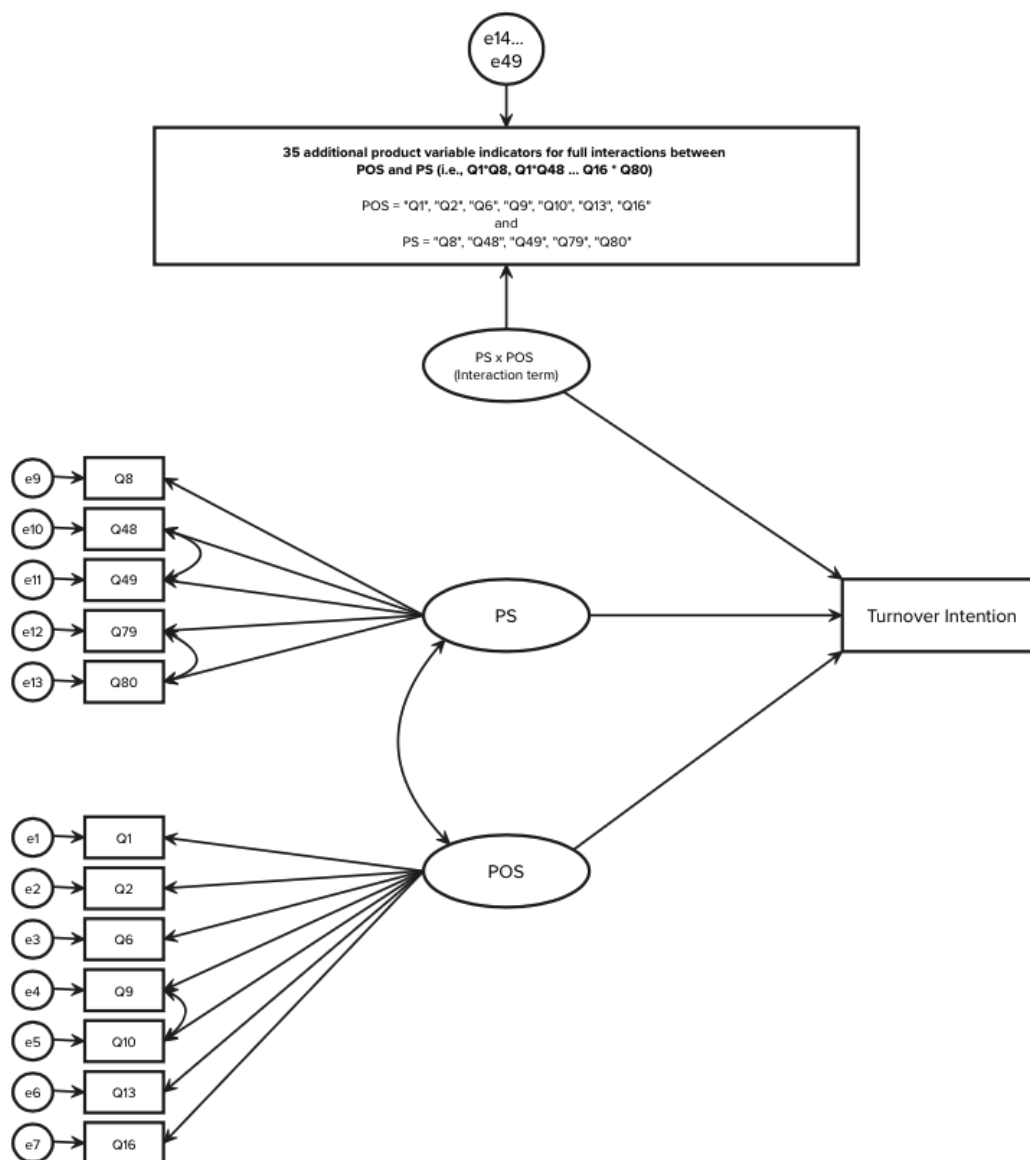
For H2b, stage one supported the construct validity of the measurement model (CFI = .974; TLI = .967; RMSEA = .057, 90% CI [.056, .058]; SRMR = .029), providing the foundation needed for further SEM to test the hypothesis. See Appendix C for full factor loadings. Next, I conducted a SEM using perceived organizational support as the predictor, turnover intention as the outcome, and psychological safety as the moderator with full latent variables. Like the previous model, this model was estimated using maximum likelihood with 86,639 observations. See Figure 19 for the structural overview. All latent variables demonstrated acceptable to good factor loadings. For perceived organizational support, standardized factor loadings ranged from .624 to .834. Turnover

intention was measured with a single item, DLEAVING, with a standardized factor loading of 1.000. Psychological safety showed standardized factor loadings between .641 and .734. However, the moderated model demonstrated a poor fit to the data (CFI = .504; TLI = .478; RMSEA = .144, 90% CI [.144, .144]; SRMR = .088).

The model results indicated a strong negative direct effect between perceived organizational support and turnover intentions ($\beta = -0.41, p < .001$). Psychological safety had a small negative effect on turnover intentions ($\beta = -0.04, p < .001$). The interaction term between perceived organizational support and psychological safety had a very small, but statistically significant, negative effect on turnover intention ($\beta = -0.007, p = .033$), indicating a slight moderation effect. Perceived organizational support and psychological safety were strongly positively correlated ($r = 0.867, p < .001$). See Figure 20 for the path diagram. The model explained 20.2% of the variance in turnover intention ($R^2 = .202$).

Figure 19

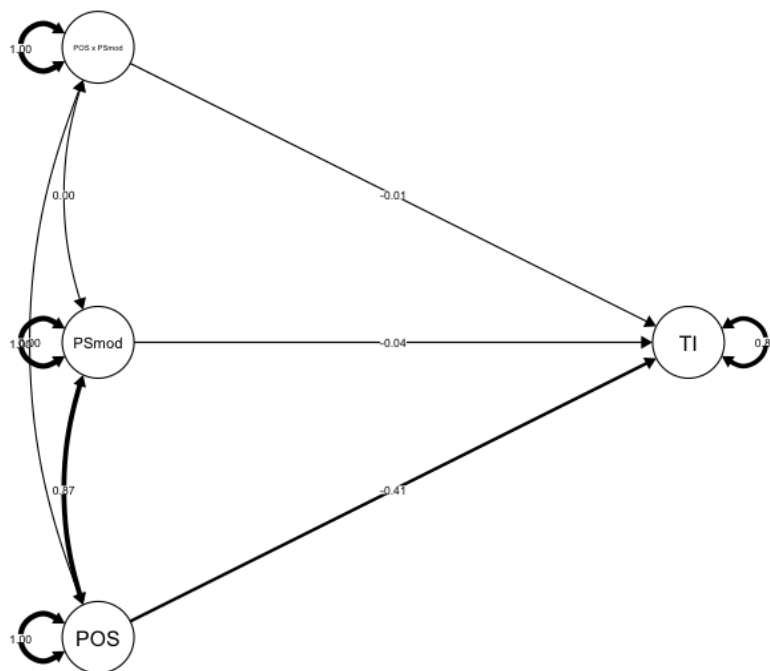
Structural Overview of Model for H2b



Note. POS = perceived organizational support. PS = psychological safety. PS x POS = interaction variable. Arrow = factor loadings. Circles = latent variables. Rectangle = observable variables.

Figure 20

Path Diagram of Perceived Organizational Support, Psychological Safety, and Turnover Intentions



Note. POS = perceived organizational support. ES = employee satisfaction. PSmod = psychological safety moderation variable. POS x PSmod = interaction variable. Arrow = factor loadings. Circles = latent variables. Small arrow pointing back to the circle or rectangle represent error variances.

These findings suggest that while perceived organizational support and psychological safety are negatively related to turnover intention, with perceived organizational support having a substantially stronger effect, psychological safety slightly enhances the negative relationship between perceived organizational support and turnover intentions. However, this moderation effect is very weak. The poor model fit indicates that these results should be interpreted cautiously, given the high

multicollinearity between perceived organizational support and psychological safety.

Hypothesis H2c

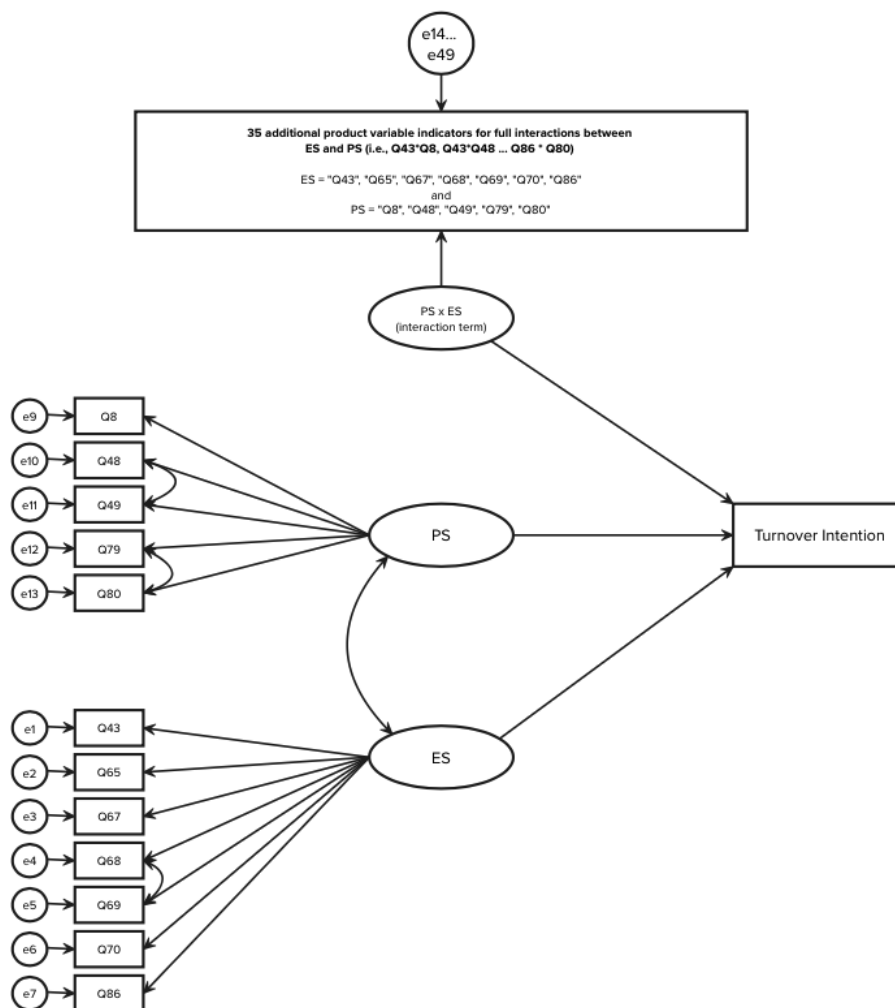
To test H2c, stage one supported the construct validity of the measurement model (CFI = .973; TLI = .965; RMSEA = .063, 90% CI [.063, .064]; SRMR = .027), providing the foundation needed for further SEM to test the hypothesis. See Appendix C for full factor loadings. Thus, I conducted a SEM using employee satisfaction as the predictor, turnover intention as the outcome, and psychological safety as the moderator with full latent variables. Like the previous models, this model was estimated using maximum likelihood with 86,639 observations. See Figure 21 for an overview of the structural model.

The overall model fit was poor with the moderation interaction (CFI = .505; TLI = .479; RMSEA = .153, 90% CI [.152, .152]; SRMR = .093). Notably, there is a strong positive correlation between employee satisfaction and psychological safety ($r = 0.82, p < .001$), likely contributing to the poor model fit in this sample. See [Figure 22](#) for the path diagram. The model explained 30.2% of the variance in turnover intention ($R^2 = .302$). Key parameter estimates indicated that employee satisfaction was negatively related to turnover intention ($\beta = -.656, SE = .003, p < .001$). Surprisingly, psychological safety had a small positive association with turnover intention ($\beta = .137, SE = .004, p < .001$). The interaction term between employee satisfaction and psychological safety had a minimal, though statistically significant, positive effect on turnover intention ($\beta = .007, SE = .002, p = .025$). Factor loadings for the latent variables were generally strong, ranging from .534 to .909 for employee satisfaction, .644 to .746 for psychological

safety, and .395 to .798 for the interaction term.

Figure 21

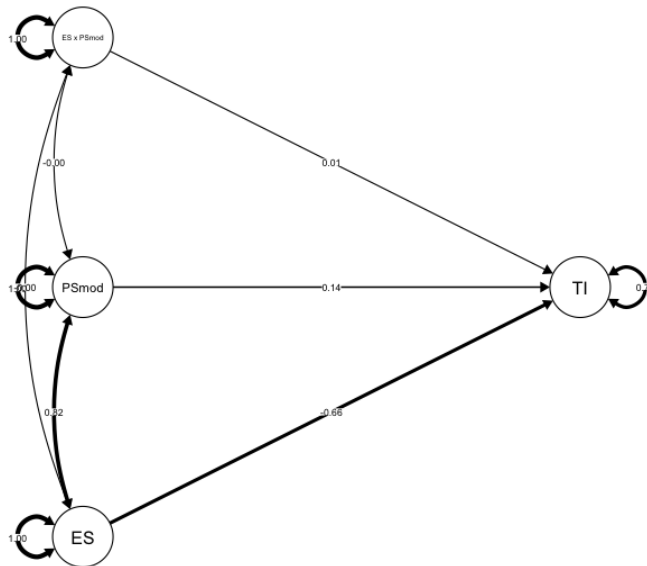
Structural Overview of Model for H2c



Note. PS = psychological safety. ES = employee satisfaction. PS x ES = interaction variable. Arrow = factor loadings. Circles = latent variables. Rectangle = observable variables.

Figure 22

Path Diagram of Employee Satisfaction, Psychological Safety, and Turnover Intentions



Note. ES = employee satisfaction. PSmod = psychological safety moderation variable. ES x PSmod = interaction variable. Arrow = factor loadings. Circles = latent variables. Small arrow pointing back to the circle or rectangle represent error variances.

Model Testing of Research Question 3

In the third research question, I examined whether burnout moderates the relationships between perceived organizational support, employee satisfaction, and turnover intentions. I hypothesized that burnout does moderate the relationships between perceived organizational support and employee satisfaction (H3a), perceived organizational support and turnover intention (H3b), and employee satisfaction and turnover intention (H3c).

Hypothesis H3a

To test H3a, I first evaluated the construct validity of the measurement model,

which provided moderate fit (CFI = .935; TLI = .922; RMSEA = .076, 90% CI [.076, .077]; SRMR = .041), providing an initial foundation needed for further SEM to test the hypothesis. However, the latent variables all strongly correlated with one another: perceived organizational support and employee satisfaction ($r = .892, p < .001$), perceived organizational support and burnout ($r = 1.019, p < .001$), and burnout with employee satisfaction ($r = .960, p < .001$). This presented a concern in the model, which was confirmed when the model would not converge after 569 iterations.

Since I failed to find a stable solution using SEM, I conducted a moderated multiple regression analysis to test whether burnout moderates the relationship between perceived organizational support and employee satisfaction. Prior to analysis, I calculated factor scores for perceived organizational support, burnout, and employee satisfaction using the measurement model generated earlier in the study for the latent factors. Predictor and moderator variables were mean centered to reduce multicollinearity and facilitate interpretation, and an interaction term was created by multiplying the centered perceived organizational support and burnout variables. I performed the moderation analysis using multiple regression with employee satisfaction as the dependent variable and perceived organizational support, burnout, and their interaction as predictors.

The overall model was statistically significant, $F(3, 86635) = 61,680, p < .001$, and accounted for approximately 68% of the variance in employee satisfaction ($R^2 = .681$). Results indicated a significant main effect of perceived organizational support on employee satisfaction ($b = .74, SE = .002, p < .001$), suggesting that higher levels of perceived organizational support were associated with higher employee satisfaction.

Unexpectedly, there was also a significant positive main effect of burnout on employee satisfaction ($b = .19, SE = .003, p < .001$). The interaction between perceived organizational support and burnout was statistically significant ($b = -.007, SE = .002, p < .001$), indicating that burnout moderates the relationship between perceived organizational support and employee satisfaction. The negative coefficient of the interaction term suggests that the positive relationship between perceived organizational support and employee satisfaction is slightly weaker at higher levels of burnout.

To investigate the robustness and practical meaningfulness of the results, I conducted analyses on the full sample ($N = 86,639$), and two subsamples ($n = 400$ each) using random seeds 123 and 234, respectively, for reproducibility when selecting the random subsamples. All models were statistically significant ($p < .001$), explaining approximately 68–69% of the variance in employee satisfaction (full sample: $R^2 = .681$; subsample 1: $R^2 = .694$; subsample 2: $R^2 = .687$).

In all three models, perceived organizational support showed a significant positive relationship with employee satisfaction (full sample: $b = .739, p < .001$; subsample 1: $b = .763, p < .001$; subsample 2: $b = .739, p < .001$). Unexpectedly, burnout also demonstrated a significant positive relationship with employee satisfaction across all models (full sample: $b = 0.194, p < .001$; subsample 1: $b = 0.167, p < .001$; subsample 2: $b = .157, p < .001$).

The interaction between perceived organizational support and burnout was statistically significant in the full sample ($b = -.007, p = .001$), suggesting a very small moderation effect. However, this interaction was not significant in either of the

subsamples (subsample 1: $b = .035$, $p = .224$; subsample 2: $b = .022$, $p = .472$), suggesting that the large sample size may be driving this result rather than a robust moderation effect. See Table 5 for the moderated regression results.

Table 5

Moderated Regression Results for Employee Satisfaction

	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>
Full Sample (N = 86639)				
(Intercept)	.003	.002	1.414	.157
Perceived organizational support	.739	.002	308.744	.001
Burnout	.194	.003	72.861	.001
POS*BO	-.007	.002	-3.258	.001
Subsample 1 (N = 400, random seed = 123)				
(Intercept)	-.045	.030	-1.500	.134
Perceived organizational support	.763	.036	21.216	.001
Burnout	.167	.040	4.153	.001
POS*BO	.035	.029	1.217	.225
Subsample 2 (N = 400, random seed = 234)				
(Intercept)	.009	.030	.294	.769
Perceived organizational support	.739	.033	22.200	.001
Burnout	.157	.037	4.245	.001
POS*BO	.022	.030	.719	.472

Note. POS*BO = Perceived organizational support and burnout interaction term.

Hypothesis H3b

For H3b, I evaluated the construct validity of the measurement model using maximum likelihood estimation with the full sample of 86,639 participants to examine the relationships between perceived organizational support, burnout, their interaction, and turnover intention. Given the problematic multicollinearity between perceived organizational support and burnout in the previous modeling for H3a, it is not surprising that the model demonstrated a poor fit to the data (CFI = .471; TLI = .436; RMSEA = .137, 90% CI [.137, .137]; SRMR = .116). Perceived organizational support and burnout strongly correlated with one another again ($r = 1.018$, $p < .001$), which is problematic and

indicates a lack of discriminant validity. The unusually high covariance value implies a potential multicollinearity or model misspecification issue. Theoretically justified modifications did not improve the model enough to form a foundation to conduct further SEM to test the moderation successfully.

That said, I alternatively explored burnout's moderation effect on perceived organizational support and turnover intention by conducting a hierarchical multiple regression. Perceived organizational support and burnout were entered in the first step of the regression, and their interaction term was added in the second step. In the first step, perceived organizational support and burnout accounted for significant variance in turnover intention, $R^2 = .178$, $F(2, 86636) = 9,378$, $p < .001$. The addition of the interaction term in the second step explained a statistically significant increase in variance in turnover intention, $\Delta R^2 = .0001$, $F(1, 86635) = 6,268$, $p < .001$.

The final model revealed significant main effects for both perceived organizational support ($b = -.170$, $SE = .002$, $p < .001$) and burnout ($b = -.048$, $SE = .002$, $p < .001$) on turnover intention. Surprisingly, burnout showed a negative relationship with turnover intention, suggesting that higher levels of burnout were associated with lower turnover intention. The interaction between perceived organizational support and burnout was also significant ($b = .004$, $SE = 0.001$, $p = .002$), indicating that burnout moderates the relationship between perceived organizational support and turnover intention. The overall model explained 17.8% of the variance in turnover intention ($R^2 = .1781$).

However, it is essential to note that while the interaction effect was statistically

significant, its practical significance may be limited given the small coefficient ($b = 0.004$) and the minimal increase in explained variance ($\Delta R^2 = .0001$). This small effect size is likely detectable due to the large sample size ($N = 86,639$).

Table 6

Moderated Regression Results for Turnover Intention

	R^2	b	SE	t	p
Full Sample ($N = 86639$)	.178				
(Intercept)		1.381	.002	811.557	.001
Perceived organizational support		-.170	.002	-86.945	.001
Burnout		-.048	.002	-25.233	.001
POS*BO		.004	.001	3.103	.001
Subsample 1 ($N = 400$)	.214				
(Intercept)		1.403	.025	56.367	.001
Perceived organizational support		-.200	.029	-6.863	.001
Burnout		-.031	.028	-1.094	.275
POS*BO		-.005	.017	-.264	.792
Subsample 2 ($N = 400$)	.163				
(Intercept)		1.346	.025	54.405	.001
Perceived organizational support		-.148	.030	-4.978	.001
Burnout		-.059	.029	-2.072	.039
POS*BO		.023	.019	1.236	.217

Note. POS*BO = Perceived organizational support and burnout interaction term.

To further explore the robustness of these findings, I conducted analyses on the full sample ($N = 86,639$), and two subsamples ($n = 400$ each) that were randomly drawn from the full dataset using seed 123 for reproducibility when selecting the random subsamples. Subsample 1 overall model was significant, $F(3, 396) = 35.83, p < .001, R^2 = .2135$. Perceived organizational support was a significant predictor of turnover intention ($b = -.200, SE = .029, p < .001$). However, burnout ($b = -.031, SE = 0.029, p = .275$) and the interaction term ($b = -.005, SE = .017, p = .792$) were not significant predictors. Subsample 2 overall model was significant, $F(3, 396) = 25.68, p < .001, R^2 = .1629$. Both perceived organizational support ($b = -.148, SE = .030, p < .001$) and burnout

($b = -.059$, $SE = .029$, $p = .039$) were significant predictors of turnover intention, but the interaction term ($b = .023$, $SE = .019$, $p = .217$) was not significant. See [Table 6](#) for moderation results across all models.

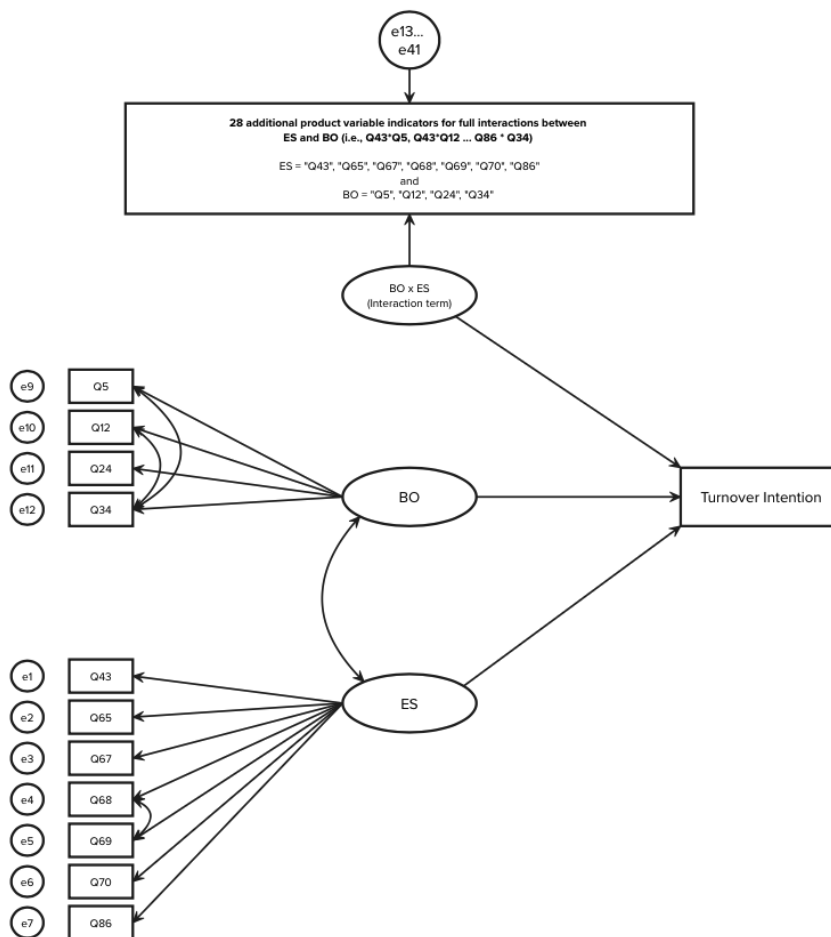
Hypothesis H3c

To test H3c, stage one supported the construct validity of the measurement model with good fit (CFI = .956; TLI = .940; RMSEA = .076, 90% CI [.076, .077]; SRMR = .035), providing the foundation needed for further SEM to test this hypothesis. See Appendix C for full factor loadings. Thus, I proceeded on and conducted a SEM using maximum likelihood with 86,639 observations. Employee satisfaction was the predictor, turnover intention was the outcome, and burnout was the moderator with full latent variables. See [Figure 23](#) for a structural model overview.

The overall model with the moderation interaction demonstrated poor fit to the data (CFI = .460; TLI = .425; RMSEA = .150, 90% CI [.150, .150]; SRMR = .126). I still examined the structural relationships. Employee satisfaction was a significant negative predictor of turnover intention ($\beta = -1.055$, $p < .001$), while burnout was a significant positive predictor ($\beta = 0.537$, $p < .001$). However, the hypothesized moderation effect, was not significant ($\beta = -0.003$, $p = .445$). The model accounted for 32.3% of the variance in turnover intention ($R^2 = .323$). Notably, there was a strong positive correlation between employee satisfaction and burnout ($r = 0.952$, $p < .001$), likely contributing to the poor model fit in this sample. Factor loadings for the latent variables were generally strong, ranging from .537 to .910 for employee satisfaction, and moderate for burnout and the interaction term, ranging .342 to .594, and .347 to .687 respectively.

Figure 23

Structural Overview of Model for H3c



Note. BO = burnout. ES = employee satisfaction. BO x ES = interaction variable. Arrow = factor loadings. Circles = latent variables. Rectangle = observable variables.

Summary

In this chapter, I examined the complex relationships between perceived organizational support, employee satisfaction, psychological safety, burnout, and turnover intentions among federal employees under 40. Research question 1 explored the relationships between perceived organizational support, employee satisfaction, and

turnover intentions. The findings supported strong positive associations between perceived organizational support and employee satisfaction ($\beta = .954, p < .001$), as well as significant negative relationships between both perceived organizational support and turnover intentions ($\beta = -.235, p < .001$) and employee satisfaction and turnover intentions ($\beta = -.673, p < .001$). These results underscore the importance of perceived organizational support and employee satisfaction in reducing turnover intentions among young federal employees.

Research question 2 investigated the moderating role of psychological safety. While the results indicated statistically significant moderation effects, the practical significance was limited. Psychological safety showed a small positive moderation effect on the relationship between perceived organizational support and employee satisfaction ($\beta = .053, p < .001$) and a minimal negative moderation effect on the relationship between perceived organizational support and turnover intentions ($\beta = -.007, p = .033$). However, poor model fit and high multicollinearity between constructs suggest these results should be interpreted cautiously.

Research question 3 examined burnout as a potential moderator. The findings were mixed and counterintuitive. Burnout showed a small but significant moderation effect on the relationship between perceived organizational support and employee satisfaction ($b = -.007, p < .001$) in the full sample. However, this effect was not consistent in smaller subsamples. Unexpectedly, burnout demonstrated a positive relationship with employee satisfaction and a negative relationship with turnover intentions, contrary to theoretical expectations. These results highlight the complex

nature of burnout in the federal workplace and suggest the need for further investigation with more robust measurement models.

In the next chapter, I will delve deeper into interpreting these findings in the context of existing literature and theoretical frameworks, examining the extent to which they confirm or extend current knowledge. Additionally, I will examine the limitations of this study and discuss the practical implications of these findings for the federal workforce.

Chapter 5: Discussion, Conclusions, and Recommendations

In this study, I investigated factors influencing turnover intentions among federal employees under 40, focusing on the relationships between perceived organizational support, employee satisfaction, psychological safety, and burnout. The research addressed the issue of employee retention in the federal workforce, particularly among younger employees who represent the future of government service. These relationships are crucial to understand to best inform the development of effective strategies to mitigate turnover and foster a skilled, engaged workforce.

Motivated by the significant costs associated with employee turnover in the federal government and the need to understand the conditions that may help organizations mitigate such turnover better, I employed a quantitative, nonexperimental approach using archival data from the 2022 OPM FEVS. This methodological approach afforded me the ability to conduct a comprehensive analysis of a large, representative sample of federal employees, offering robust insights into their workplace experiences and intentions to leave their organizations. The study's design helped examine direct relationships between key variables and explore the potential moderating effects of psychological safety and burnout on these relationships.

Key findings confirmed a strong positive association between perceived organizational support and employee satisfaction. Both perceived organizational support and employee satisfaction demonstrated significant negative relationships with turnover intentions, underscoring their importance in retaining younger federal employees. The study also found statistically significant, albeit small, moderating effects of psychological

safety and burnout, though these results were limited by multicollinearity. Overall, these findings offer valuable insights into factors affecting retention of younger federal employees, though some results warrant further investigation due to measurement and multicollinearity issues.

Interpretation of the Findings

The findings in this study confirm and extend existing knowledge in organizational behavior and public sector management, particularly regarding employee retention in federal agencies. The results align with several critical aspects of earlier research while offering new insights and raising questions for future investigation. This study extends current knowledge by explicitly focusing on federal employees under 40, a demographic that has yet to be extensively studied in this context. This focus provides valuable insights into factors affecting the retention of younger federal employees, addressing a gap in the literature and offering practical implications for workforce management in government agencies.

The strong positive association observed between perceived organizational support and employee satisfaction confirms previous findings in the literature. Previous researchers have also found positive relationships between perceived organizational support and various employee outcomes, including job satisfaction (Kurtessis et al., 2017; Zhong et al., 2016). The strength of this relationship in this study of younger federal employees further reinforces the importance of organizational support across different workplace contexts. The significant negative relationships between perceived organizational support and turnover intentions, and employee satisfaction and turnover

intentions, are consistent with existing knowledge (Hur & Abner, 2023; Kurtessis et al., 2017). These findings reinforce the importance of perceived organizational support and employee satisfaction in reducing turnover intentions among younger federal employees.

The investigation of psychological safety as a moderator contributes to the growing body of research on this construct. While the results demonstrated statistically significant moderation effects, their small magnitude and the weak evidence of model fit limit the strength of these conclusions. That said, this result partially aligns with work that found psychological safety to be an important factor in workplace outcomes (Edmondson & Bransby, 2023; Halliday et al., 2022). However, the limited moderation effects and multicollinearity observed for psychological safety in this study raise questions about the robustness of its measurement within the OPM FEVS. These findings suggest that the current operationalization of psychological safety in the OPM FEVS may only partially capture the construct as it manifests among young federal employees. Future research should focus on refining and validating the measurement of psychological safety within the federal workplace context, potentially incorporating additional or more targeted items to assess this important construct better. This refinement could lead to a more accurate understanding of how psychological safety interacts with other workplace factors for this demographic.

The findings related to burnout present an extension of current knowledge. The unexpected positive association between burnout and employee satisfaction, and negative association with turnover intentions, contradicts much of the existing literature (Bakker et al., 2014; Hur & Abner, 2023; Strassburger et al., 2023; Zhang et al., 2022). These

counterintuitive results suggest that the current items used to measure burnout in the OPM FEVS may not adequately capture the construct as it is traditionally conceptualized in the literature, particularly for younger federal employees. The divergence from previous findings underscores the need for a critical re-examination of how burnout is measured within the OPM FEVS. Future research should focus on refining and expanding the burnout-related items to ensure they comprehensively assess all dimensions of burnout (i.e., exhaustion, cynicism, and reduced professional efficacy) as established in well-validated burnout measures. This refinement could lead to more accurate assessments of burnout and its relationships with other workplace factors in the federal context using OPM FEVS.

The focus on federal employees under 40 years old provides valuable insights into factors affecting the retention of younger federal workers, addressing a gap in the literature. While many of the findings align with previous research on turnover intentions, the unique characteristics of this sample—such as job security considerations and public service motivation—may contribute to some of the unexpected results. For instance, the complex relationship between burnout and turnover intentions might reflect the pressures and rewards associated with early-career federal employment.

Limitations

Several limitations of this study warrant consideration when interpreting the findings. First, using archival data from the 2022 OPM FEVS limited the study to pre-existing measures, which may have yet to capture the nuances of the constructs under investigation fully. This was particularly evident in measuring burnout and psychological

safety, where construct validity issues emerged.

Second, the cross-sectional nature of the data precludes causal inferences. While relationships between variables were identified, the direction of these relationships can only be definitively established with longitudinal data. Third, the high multicollinearity observed between variables posed challenges for some analyses and limited the ability to distinguish the unique effects of these constructs. This issue supports the call for refined measurement approaches using OPM FEVS in future research (Resh et al., 2021; Somers, 2018).

Finally, I operationalized turnover intention using a single self-disclosed survey item, and any reliance on this as a proxy for actual turnover behavior introduces significant uncertainty. While turnover intentions are widely used and can provide valuable insights, the relationship between intention and actual behavior is complex and often moderated by numerous factors (e.g., labor market conditions, alternative job opportunities, personal circumstances; Limbocker & Richardson, 2023). Limbocker and Richardson (2023) emphasized that the strength of the intention-behavior relationship can vary considerably across different contexts and populations. In the case of federal employees, particularly those under 40, unique factors such as job security, pension considerations, and public service motivation may further complicate this relationship. Consequently, while this study's findings regarding turnover intentions offer important insights, they should be interpreted cautiously and not be assumed to reflect actual turnover behaviors directly.

These limitations underscore the need for future studies that employ longitudinal

designs, incorporate actual turnover data, and utilize more refined, context-specific measures of key constructs. Such approaches would address the uncertainties inherent in cross-sectional, intention-based research and provide a more robust understanding of the factors influencing retention among young federal employees.

Recommendations

Based on the strengths and limitations acknowledged in this study and the literature reviewed, several recommendations for future research emerged. First, longitudinal studies should examine how the relationships between perceived organizational support, employee satisfaction, psychological safety, burnout, and turnover intentions evolve over time. This approach would provide more robust evidence for causal relationships and help clarify the temporal dynamics of these constructs.

Future studies could focus on developing and validating more robust measures tailored to the federal workforce context, particularly for burnout and psychological safety, as evidenced in this study. This aligns with recommendations from previous researchers for improving the use of OPM FEVS data in academic research (Resh et al., 2021; Somers, 2018). Future research could explore incorporating additional or more targeted items to assess these constructs better. This refinement could lead to a more accurate understanding of how psychological safety and burnout interact with other workplace factors for this demographic.

A mixed-methods approach, incorporating qualitative methods such as in-depth interviews or focus groups with young federal employees, could provide valuable insights into how they experience and interpret concepts like organizational support,

psychological safety, satisfaction, and burnout. Additionally, future research could examine how the relationships between these constructs vary across different agencies, job types, or demographic subgroups within the under-40 federal employee population. This would address the call for more nuanced analyses of OPM FEVS data (Fernandez et al., 2015).

Building on the work of Limbocker and Richardson (2023), future studies could link turnover intentions with actual turnover behavior, potentially through collaboration with one or more federal agencies to track actual employee departures over time. Future research should also explore how the unique aspects of federal employment, such as public service motivation and job security, interact with traditional predictors of turnover intention. This could provide valuable insights into how general theories of employee retention apply or need modification in the public sector context. Finally, alternative model specifications may be necessary for a more accurate representation of the variable relationships using OPM FEVS, potentially calling additional relevant variables to improve model fit and practical explanatory significance.

Implications

This study's findings have several implications for positive social change that may extend beyond the immediate scope of this research. Implications span multiple levels, from individual employees to organizations and broader societal considerations. By examining the factors influencing turnover intentions among younger federal employees, this study offers insights that inform policy, practice, and future research in public sector management. The following discussion outlines the potential impacts and

applications of these findings, considering their relevance to organizational effectiveness, workforce development, and the broader landscape of public service. While these implications are grounded in the findings from this study, their practical implementation should be considered in light of the aforementioned limitations and the specific contexts of different federal agencies. At the organizational level, the results highlight the importance of perceived organizational support and employee satisfaction in reducing turnover intentions among federal employees under 40. Federal agencies may use these insights to develop more effective retention strategies, potentially leading to improved continuity and efficiency in government services, enhanced institutional knowledge retention, and cost savings associated with reduced recruitment and training frequencies.

At the societal and policy level, improving retention of federal employees under 40 may contribute to a more stable and experienced federal workforce, potentially leading to better public service delivery. Even more broadly, it may also increase the attractiveness of federal careers to younger generations, ensuring a sustainable pipeline of public servants. Policy recommendations include reviewing and updating federal human resource policies to better align with the needs and expectations of younger employees.

At the individual level, the findings may lead to improved work experiences and satisfaction for federal employees under 40, enhanced career development opportunities through longer tenure in federal service, and potential reduction in work-related stress and burnout through improved organizational support and psychological safety. Methodologically, this study underscores the need for more robust and tailored measurement items when studying federal employees using the OPM FEVS. Future

research should focus on developing and validating measures specifically designed for the federal workforce context, improving question-level items on the OPM FEVS, employing mixed-method approaches, and utilizing longitudinal designs. Theoretically, the findings extend OST and the JD-R model by applying them specifically to federal employees under 40. The unexpected findings regarding burnout suggest a need to reevaluate how this construct is conceptualized and measured within the context of OPM FEVS.

From a broader social change perspective, the findings in this study have the potential to contribute to a more effective and responsive government sector. By addressing the factors that influence turnover intentions among younger federal employees, a more diverse, dynamic, and representative public workforce can be obtained. This, in turn, could lead to more innovative approaches to public service delivery and policy implementation. Improved retention of younger employees in federal service may also help bridge the generational gap in public sector employment, fostering intergenerational knowledge transfer and collaboration. Furthermore, by enhancing job satisfaction and reducing turnover intentions among this demographic, there may be a ripple effect in terms of increased public trust in government institutions, as a more stable and engaged workforce could translate to more consistent and high-quality public services.

The potential for social change extends to issues of equity and inclusion as well; by better understanding and addressing the needs of younger federal employees, agencies may create more inclusive work environments that attract and retain a diverse range of

talent, potentially leading to policies and services that better reflect and serve the needs of an increasingly diverse citizenry. Lastly, the emphasis on psychological safety highlighted in this study could contribute to broader conversations about workplace culture and mental health, potentially influencing practices not only in the public sector but in other industries, thereby promoting healthier and more supportive work environments across society.

Conclusion

The findings from this study offer valuable insights into some factors influencing turnover intentions among federal employees under 40 years old. The findings underscore the importance of perceived organizational support and employee satisfaction in retaining this crucial segment of the federal workforce. While psychological safety and burnout also play roles in this dynamic, their effects are more nuanced than previously thought, highlighting the need for future research and more refined measurement approaches.

As the federal government continues to face challenges in attracting and retaining talent, the insights from this study offer a crucial starting point for developing targeted interventions and policies. However, the limitations also signal the need for ongoing research to fully grasp the evolving nature of work experiences in the public sector. By continuing to invest in understanding and addressing the unique needs of younger employees, federal agencies may enhance their capacity to serve the public good through a skilled and committed workforce.

References

- Abner, G. (2023). What keeps public employees in their jobs? It's not just pay. *Government Executive*. <https://www.govexec.com/management/2023/01/what-keeps-public-employees-their-jobs-its-not-just-pay/381709/>
- Ahmad, I., & Umrani, W. A. (2019). The impact of ethical leadership style on job satisfaction: Mediating role of perception of Green HRM and psychological safety. *Leadership & Organizational Development Journal*, 40(5), 534–547. <https://doi.org/10.1108/LODJ-12-2018-0461>
- An, S.-H. (2019). Employee voluntary and involuntary turnover and organizational performance: Revisiting the hypothesis from classical public administration. *International Public Management Journal*, 22(3), 444–469. <https://doi.org/10.1080/10967494.2018.1549629>
- Anjum, S., & Prasad, K. (2023). Effect of perceived organizational support and supervisor support on employee engagement: A study on SMEs in Gujarat. *IUP Journal of Organizational Behavior*, 22(3), 66–86.
- Asparouhov, T., Muthén, B. O., & Morin, A. J. S. (2015). Bayesian structural equation modeling with cross-loadings and residual covariances: Comments on Stromeier et al. *Journal of Management*, 4(6), 1561–1577. <https://doi.org/10.1177/0149206315591075>
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD-R approach. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 389–411.

<https://doi.org/10.1146/annurevorgpsych-031413-091235>

Bakker, A. B., Demerouti, E., Taris, T. W., Schaufeli, W. B., & Schreurs, P. J. G. (2003).

A multigroup analysis of the job demands-resources model in four home care organizations. *International Journal of Stress Management*, *10*(1), 16–38.

<https://doi.org/10.1037/1072-5245.10.1.16>

Baran, B. E., Shanock, L. R., & Miller, L. R. (2012). Advancing organizational support

theory into the twenty-first century world of work. *Journal of Business*

Psychology, *27*, 123–147. <https://doi.org/10.1007/s10869-011-9236-3>

Bergh, D. (2015). Chi-squared test of fit and sample size – A comparison between a

random sample approach and a chi-square value adjustment method. *Journal of Applied Measurement*, *16*(2), 204–217.

Blalock, H. M. (1968). The measurement problem: A gap between the languages of

theory and research. In H. M. Blalock & A. B. Blalock (Eds.), *Methodology in social research* (pp. 5–27). McGraw-Hill.

Blau, P. M. (1964). *Exchange and power in social life*. Wiley.

Blau, P. M. (1986). *Exchange and power in social life* (2nd ed.). Routledge.

<https://doi.org/10.4324/9780203792643>

Bolt, E. E. T., Winterton, J., & Cafferkey, K. (2022). A century of labour turnover

research: A systematic literature review. *International Journal of Management*

Reviews, *24*, 555–576. <https://doi.org/10.1111/ijmr.12294>

Bunner, J., Prem, R., & Korunka, C. (2020). How do safety engineers improve their job

performance? The roles of influence tactics, expert power, and management

support. *Employee Relations: The International Journal*, 42(2), 381–397.

<https://doi.org/10.1108/ER-04-2018-0120>

Bureau of Labor Statistics. (2023). *Table 4. Quits levels and rates by industry and region, seasonally adjusted*. BLS Economic Releases.

https://www.bls.gov/news.release/jolts.t04.htm#jolts_table4.f.2

Burkholder, G. J., Cox, K. A., Crawford, L. M., & Hitchcock, J. H. (Eds.). (2020).

Research designs and methods: An applied guide for the scholar-practitioner.

SAGE Publishing.

Charoensap-Kelly, P., Sheldon, P., & Antony, M. G. (2023). Social support expectations

of managers and employees from Croatia, Thailand, and the United States amid

COVID-19: An organizational support theory perspective. *Southern*

Communication Journal, 88(5), 491–506.

<https://doi.org/10.1080/1041794X.2023.2214114>

Chen C., Liao, J., & Wen, P. (2014). Why does formal mentoring matter? The mediating

role of psychological safety and the moderating role of power distance orientation

in the Chinese context. *International Journal of Human Resource Management*

25(8), 1112–1130. <https://doi.org/10.1080/09585192.2013.816861>

Chen, I., Wadei, K. A., Bai, S., Liu, J. (2020). Participative leadership and employee

creativity: A sequential mediation model of psychological safety and creative

process engagement. *Leadership & Organizational Development Journal* 41(6),

741–759. <https://doi.org/10.1108/LODJ-07-2-19-0319>

Chernyak-Hai, L., & Rabenu, E. (2018). The new era workplace relationships: Is social

exchange theory still relevant? *Industrial and Organizational Psychology*, 11(3), 456–481. <https://doi.org/10.1017/iop.2018.5>

Danks, N. P., Sharma, P. N., & Sarstedt, M. (2020). Model selection uncertainty and multimodel inference in partial least squares structural equation modeling (PLS-SEM). *Journal of Business Research*, 113(May), 13–24.

<https://doi.org/10.1016/j.jbusres.2020.03.019>

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology*, 86, 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>

Diemer, H. (1917). Causes of “turnover” among college faculties. *The ANNALS of the American Academy of Political and Social Science*, 71(1), 216–224.

<https://doi.org/10.1177/000271621707100119>

Dietz, T., & Kalof, L. (2009). *Introduction to social statistics: The logic of statistical reasoning*. Wiley-Blackwell.

Edmondson, A. C. (2004). Psychological safety, trust, and learning in organizations: A group-level lens. In R. M. Kramer & K. S. Cook (Eds.), *Trust and distrust in organizations: Dilemmas and approaches*, (239–272). Russell Sage Foundation.

Edmondson, A. C., & Bransby, D. P. (2023). Psychological safety comes of age: Observed themes in an established literature. *Annual Review of Organizational Psychology and Organizational Behavior*, 10, 55–78.

<https://doi.org/10.1146.annurev-orgpsych-120920-055217>

Edwards, S. T., Marino, M., Solberg, L. I., Damschroder, L., Stange, K. C., Kottke, T. E.,

- Balasubramanian, B. A., Springer, R., Perry, C. K., & Cohen, D. J. (2021). Cultural and structural features of zero-burnout primary care practices. *Health Affairs (Project Hope)*, *40*(6), 928–936. <https://doi.org/10.1377/hlthaff.2020.02391>
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Personality and Social Psychology*, *71*(3), 500–507. <https://doi.org/10.1037/0021-9010.71.3.500>
- Eisenberger, R., Shanock, L. R., & Wen, X. (2020). Perceived organizational support: Why caring about employees counts. *Annual Review of Organizational Psychology and Organizational Behavior*, *7*, 101–124. <https://doi.org/10.1146/annurev-orgpsych0012119-044917>
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology*, *2*, 335–362. <https://doi.org/10.1146/annurev.so.02.080176.002003>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*, 175–191.
- Fernandez, S., Resh, W. G., Moldogaziev, T., & Oberfield, Z. W. (2015). Assessing the past and promise of the Federal Employee Viewpoint Survey for public management research: A research synthesis. *Public Administrative Review*, *75*(3), 382–394. <https://doi.org/10.1111/puar.12368>
- Ferreira, P., & Gomes, S. (2023). Work–life balance and work from home experience: Perceived organizational support and resilience of European workers during

COVID-19. *Administrative Sciences*, 13(153), 1–15.

<https://doi.org/10.3390/admsci13060153>

Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2017).

Psychological safety: A meta-analytic review and extension. *Personnel*

Psychology, 70, 113–165. <https://doi.org/10.1111/peps.12183>

Freudenberger, H. J. (1974). Staff burn-out. *Journal of Social Issues*, 30(1), 159–165.

<https://doi.org/10.1111/j.1540-4560.1974.tb00706.x>

Freudenberger, H. J., & Richelson, G. (1980). *Burn-out: the high cost of high achievement*. Anchor Press.

Friedman, D. (2022). *Federal workforce attrition rises back up to pre-pandemic levels*.

Federal News Network.

<https://federalnewsnetwork.com/workforce/2022/08/federal-workforce-attrition-rises-back-up-to-pre-pandemic-levels/>

Frost, J. (2017). *Overfitting regression models: Problems, detection, and avoidance*.

Statistics by Jim. <https://statisticsbyjim.com/regression/overfitting-regression-models/>

Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American*

Sociological Review, 25(2), 161–178. <https://doi.org/10.2307/2092623>

Grant, A. M., Berg, J. M., & Cable, D. M. (2014). Job titles as identity badges: How self-

reflective titles can reduce emotional exhaustion. *The Academy of Management*

Journal, 57(4), 1201–1225. <https://doi.org/10.5465/amj.2012.0338>

Griffeth, R. W., Hom, P. W., & Gaertner, S. (2000). A meta-analysis of antecedents and

correlates of employee turnover: update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26, 463–488.

<http://doi.org/10.1177/014920630002600305>

Groves, R. M., Fowler Jr., F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey methodology* (2nd ed.). John Wiley & Sons, Inc.

Guerrero, S., & Herrbach, O. (2008). The affective underpinnings of psychological contract fulfilment. *Journal of Managerial Psychology*, 23(1), 4–17.

<https://doi.org/10.1108/02683940810849639>

Halliday, C. S., Paustian-Underdahl, S. C., Stride, C., & Zhang, H. (2022). Retaining women in male-dominated occupations across cultures: The role of supervisor support and psychological safety. *Human Performance*, 35(3–4), 156–177.

<https://doi.org/10.1080/08959285.2022.2050234>

Han, S. J., Lee, Y., & Beyerlein, M. (2019). Developing team creativity: The influence of psychological safety and relation-oriented shared leadership. *Performance Improvement Quarterly*, 32(2), 159–182. <https://doi.org/10.1002/piq.21293>

Hassan, S., & Jiang, Z. (2019). Facilitating learning to improve performance of law enforcement workgroups: The role of inclusive leadership behavior. *International Public Management Journal*, 24(1), 106–30.

<https://doi.org/10.1080/10967494.2019.1680465>

Hebles, M., Trincado-Munoz, F., & Ortega, K. (2022). Stress and turnover intentions within healthcare teams: The mediating role of psychological safety, and the moderating effect of COVID-19 worry and supervisor support. *Frontiers in*

Psychology, 12. <https://doi.org/10.3389/fpsyg.2021.758438>

Heimerl, P., Haid, M., Benedikt, L., & Scholl-Grissemann, U. (2020). Factors influencing job satisfaction in hospital industry. *SAGE Open*, 10(4).

<https://doi.org/10.1177/2158244020982998>

Heinemann, L. V., & Heinemann, T. (2017). Burnout research: Emergency and scientific investigation of a contested diagnosis. *SAGE Open*, 7(1), 1–12.

<https://doi.org/10.1177/2158244017697154>

Hngoi, C. L., Abdullah, N.-A., Sulaiman, W. S. W., & Nor, N. I. Z. (2023). Relationship between job involvement, perceived organizational support, and organizational commitment with job insecurity: A systematic literature review. *Frontiers in Psychology*, 13(1066734). <https://doi.org/10.3389/fpsyg.2022.1066734>

Hoppock, R. (1936). Age and job satisfaction. *Psychological Studies of Human Variability*, 47(2), 115–118. <https://doi.org/10.1037/13516-010>

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>

Huning, T. M., Hurt, K. J., & Frieder, R. E. (2020). The effect of servant leadership, perceived organizational support, job satisfaction and job embeddedness on turnover intentions: An empirical investigation. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, 8(2), 177–194.

<https://doi.org/10.1108/EBHRM-06-2019-0049>

Hur, H., & Abner, G. (2023). What makes public employees want to leave their job? A

- meta-analysis of turnover intention predictors among public sector employees. *Public Administration Review*, 1–23. <https://doi.org/10.1111/puar.13601>
- Imamoglu, S. Z., Erat, S., & Turkcan, H. (2023). How organizational identity relates to knowledge sharing and creativity: Moderating effect of perceived organizational support. *Kybernetes*, 52(10), 4476–4494. <https://doi.org/10.1108/K-02-2022-0169>
- Jawahar, I. M., Stone, T. H., & Kisamore, J. L. (2007). Role conflict and burnout: The direct and moderating effects of political skill and perceived organizational support on burnout dimensions. *International Journal of Stress Management*, 14(2), 142–159. <https://doi.org/10.1037/1072-5245.14.2.142>
- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692–724. <https://doi.org/10.5465/256287>
- Kalleberg, A. L. (2000). Nonstandard employment relations: Part-time, temporary and contract work. *Annual Review of Sociology*, 26(1), 341–365. <https://doi.org/10.1146/annurev.soc.26.1.341>
- Kang, I. G., Croft, B., & Bichelmeyer, B. A. (2021). Predictors of turnover intention in U.S. federal government workforce: Machine learning evidence that perceived comprehensive HR practices predict turnover intention. *Public Personnel Management*, 5(4), 538–558. <https://doi.org/10.1177/0091026020977562>
- Katou, A. A., Koupkas, M., & Triantafillidou, E. (2022). Job demands-resources model, transformational leadership and organizational performance: a multilevel study. *International Journal of Productivity and Performance Management*, 71(7),

2704–2722. <https://doi.org/10.1108/IJPPM-06-2020-0342>

Kim, M., & Daniel, J. L. (2020). Common source bias, key informants, and survey-administrative linked data for nonprofit management research. *Public Performance & Management Review*, *43*(1), 232–256.

<https://doi.org/10.1080/15309576.2019.1657915>

Kim, K. Y., Clark, K. D., & Messersmith, J. G. (2023). High performance work systems and perceived organizational support: The contribution of human resource department's organizational embodiment. *Human Resources Management*, *62*, 181–196. <https://doi.org/10.1002/hrm.22142>

Kline, R. (2023). *Principles and practice of structural equation modeling* (5th ed.). The Guilford Press.

Ko, J., & Hur, S. (2014). The impacts of employee benefits, procedural justice, and managerial trustworthiness on work attitudes: Integrated understanding based on social exchange theory. *Public Administration Review*, *74*(2), 176–187.

<https://doi.org/10.1111/puar.12160>

Kurt, T., & Duyar, İ. (2023). The influence of perceived organizational support on teachers' job satisfaction: The mediating roles of climate for initiative and climate for psychological safety. *Participatory Educational Research*, *10*(2), 156–173.

<https://doi.org/10.17275/per.23.34.10.2>

Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management*, *43*(6), 1854–1884.

<https://doi.org/10.1177/0149206315575554>

- Lavigna, B. (2021). *Public-sector organizations devote considerable resources to hiring, but they often overlook retention and its “evil twin” turnover. Analyzing data and acting on it can help.* Route Fifty. <https://www.route-fifty.com/finance/2021/07/replacing-government-employee-can-cost-150-workers-salary/183989/>
- Lazzari, M., Alvarez, J. M., & Ruggieri, S. (2022). Predicting and explaining employee turnover intention. *International Journal of Data Science and Analytics*, 14, 279–292. <https://doi.org/10.1007/s41060-022-00329-w>
- Le, H., Lee, J., Nielsen, I., & Nguyen, T. L. A. (2023). Turnover intentions: The roles of job satisfaction and family support. *Personnel Review*, 52(9), 2209–2228. <https://doi.org/10.1108/PR-08-2021-0582>
- Lee., G. R., Fernandez, S., & Lee, S. (2021). An overlooked cost of contracting out: Evidence from employee turnover intention in U.S. Federal Agencies. *Public Personnel Management*, 50(3), 381–407. <https://doi.org/10.1177/00091026020944558>
- Lenz, L., Hattke, F., Kalucza, J., & Redlbacher, F. (2023). Virtual work as a job demand? Work behaviors of public servants during Covid-19. *Public Performance & Management Review*, 1–31. <https://doi.org/10.1080/15309576.2023.2217552>
- Levinson, H. (1965). Reciprocation: The relationship between man and organization. *Administrative Science Quarterly*, 9(4), 370–390. <https://doi.org/10.2307/2391032>
- Liss-Levinson, R., Bharthapudi, K., Leider, J. P., & Sellers, K. (2015). Loving and

leaving public health: Predictors of intentions to quit among state health agency workers. *Journal of Public Health Management and Practice*, 21(6), S91–S101.

<https://doi.org/10.1097/PHH.0000000000000317>

Liu, Y., & Keller, R. T. (2021). How psychological safety impacts R&D project teams' performance. *Research and Technology Management*, 64(2), 39–45.

<https://doi.org/10.1080/08956308.2021.1863111>

Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, 4(4), 309–336. [https://doi.org/10.1016/0030-5073\(69\)90013-0](https://doi.org/10.1016/0030-5073(69)90013-0)

Locke, E. A., Schweiger, D. M., & Latham, G. P. (1986). Participation in decision making: When should it be used? *Organizational Dynamics*, 14(3), 65–79.

[https://doi.org/10.1016/0090-2616\(86\)90032-X](https://doi.org/10.1016/0090-2616(86)90032-X)

Lucas, J. W. (2003). Theory-testing, generalization, and the problem of external validity. *Sociological Theory*, 21(3), 236–253. <https://doi.org/10.1111/1467-9558.00187>

Lyman, B., Biddulph, M. E., Hopper, V. G., & Brogan, J. L. (2020). Nurses' experiences of organisational learning: A qualitative descriptive study. *Journal of Nursing Management*, 28(6), 1241–1249. <https://doi.org/10.1111/jonm.13070>

Maan, A. T., Abid, G., Butt, T. H., Ashfaq, F., & Ahmed, S. (2020). Perceived organizational support and job satisfaction: A moderated mediation model of proactive personality and psychological empowerment. *Future Business Journal*, 6(21). <https://doi.org/10.1186/s43093-020-00027-8>

Maslach, C. (1978). The client role in staff burn-out. *Journal of Social Issues*, 34(4), 111–124. <https://doi.org/10.1111/j.1540-4560.1978.tb00778.x>

- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99–113.
<https://doi.org/10.1002/job.4030020205>
- McFeely, S., & Wigert, B. (2019). *This fixable problem costs U.S. businesses \$1 trillion*. Gallup. <https://www.gallup.com/workplace/247391/fixable-problem-costs-businesses-trillion.aspx>
- Memon, M. A., Ting, H., Cheah, J-H., Thurasamy, R., Chuah, F. & Cham, T. H. (2020). Sample size for survey research: Review and recommendation. *Journal of Applied Structural Equation Modeling*, 4(2), i–xx. [https://doi.org/10.47263/JASEM.4\(2\)01](https://doi.org/10.47263/JASEM.4(2)01)
- Meng, L., Du, J., & Lin, X. (2023). Surviving bench stress: Meaningful work as a personal resource in the expanded job demands-resources model. *Current Psychology*, 42(21), 17757–17768. <https://doi.org/10.1007/s12144-022-02956-9>
- Mueller, R. O., & Hancock, G. R. (2010). Structural equation modeling. In G. R. Hancock & R. O. Mueller (Eds.), *The reviewer's guide to quantitative methods in the social sciences* (pp. 371–384). Routledge.
- Mobley, W. H. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62(2), 237–240.
<https://doi.org/10.1037/0021-9010.62.2.237>
- Montoya, A. K. (2019). Moderation analysis in two-instance repeated measures designs: Probing methods and multiple moderator models. *Behavior Research Methods*, 51, 61–82. <https://doi.org/10.3758/s13428-018-1088-6>
- Morin, A. J. S., Gillet, N., Blais, A-R., Comeau, C., & Houle, S. A. (2023). A multilevel

perspective on the role of job demands, job resources, and need satisfaction for employees' outcomes. *Journal of Vocational Behavior*, 141(103846).

<https://doi.org/10.1016/j.jvb.2023.103846>

Office of Personnel Management. (2021). *Federal Employee Viewpoint Survey:*

Technical report. OPM.gov. <https://www.opm.gov/fevs/reports/technical-reports/technical-report/technical-report/2021/2021-technical-report.pdf>

Office of Personnel Management. (2022a). *2022 Federal Employee Viewpoint Survey*

results: Technical report. U.S. Office of Personnel Management.

<https://www.opm.gov/fevs/reports/technical-reports/technical-report/technical-report/2022/2022-technical-report.pdf>

Office of Personnel Management. (2022b). *2022 Federal Employee Viewpoint Survey*

results: Governmentwide management report. U.S. Office of Personnel

Management. [https://www.opm.gov/fevs/reports/governmentwide-](https://www.opm.gov/fevs/reports/governmentwide-reports/governmentwide-reports/governmentwide-management-report/2022/2022-governmentwide-management-report.pdf)

[reports/governmentwide-reports/governmentwide-management-report/2022/2022-governmentwide-management-report.pdf](https://www.opm.gov/fevs/reports/governmentwide-reports/governmentwide-reports/governmentwide-management-report/2022/2022-governmentwide-management-report.pdf)

Office of Personnel Management. (n.d.). *About*. U.S. Office of Personnel Management.

<https://www.opm.gov/fevs/about/>

Office of Personnel Management Data Analysis Group. (2018a). *2017 Common*

characteristics of the government. U.S. Office of Personnel Management.

<https://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/common-characteristics-of-the-government/ccog2017.pdf>

Office of Personnel Management Data Analysis Group. (2018b). *Salary information for*

the executive branch. U.S. Office of Personnel Management.

<https://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/reports-publications/salary-information-for-the-executive-branch.pdf>

Office of Personnel Management Data Analysis Group. (n.d.). *Full-time permanent age distributions*. U.S. Office of Personnel Management.

<https://www.opm.gov/policy-data-oversight/data-analysis-documentation/federal-employment-reports/reports-publications/full-time-permanent-age-distributions/>

O’keefe, M., Salunkhe, S. S., Lister, C., Johnson, C., & Edmonds, T. (2020). Quantitative and qualitative measures to assess organizational inclusion: A systematic review. *Journal of Business Diversity*, 20(5), 49–70.

<https://doi.org/10.33423/jbd.v20i5.3928>

Okeke, H. C., Ofoma, E. B., Eze, M. A., & Ogochukwu, E. J. (2023). Perceived organizational support and work experience as predictors of work life balance. *Unizik Journal of Educational Research and Policy Studies*, 16(2), 117–130.

Pan, X., Zhao, X., & Shen, H. (2022). Is work time control good for innovation? A two-stage study to verify the mediating and moderating processes. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.821441>

Park, J., & Min, H. (2020). Turnover intention in the hospitality industry: A meta-analysis. *International Journal of Hospitality Management*, 90.

<https://doi.org/10.1016/j.ijhm.2020.102599>

Partnership for Public Service. (n.d.). *Who is quitting and retiring: Important fiscal 2021*

trends in the federal government. <https://ourpublicservice.org/fed-figures/attrition/>

- Pattnaik, L., Mishra, S., & Tripathy, S. K. (2023). Perceived organizational support and organizational commitment: Moderating role of person–organization fit. *Global Business Review*, 24(5), 902–915. <https://doi.org/10.1177/0972150920920776>
- Pitts, D. W., Marvel, J. D., & Fernandez, S. (2011). So hard to say goodbye? Turnover intention among U.S. federal employees. *Public Administration Review*, 71(5), 751–760. <https://doi.org/10.1111/j.1540-6210.2011.02414.x>
- Price, J. L. (1977). *The study of turnover*. Iowa State Press.
- Pu, B., Sang, W., Ji, S., Hu, J., & Phau, I. (2024). The effect of customer incivility on employees' turnover intention in hospitality industry: A chain mediating effect of emotional exhaustion and job satisfaction. *International Journal of Hospitality Management*, 118(103665). <https://doi.org/10.1016/j.ijhm.2023.103665>
- Rahman, M. S. (2017). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review. *Journal of Education and Learning*, 6(1), 102–112. <https://doi.org/10.5539/jel.v6n1p102>
- Rehman, A. U., Bhuttah, T. M., & You, X. (2020). Linking burnout to psychological well-being: The mediating role of social support and learning motivation. *Psychology Research and Behavior Management*, 13, 545–554. <https://doi.org/10.2147/PRBM.S250961>
- Resh, W., Moldogaziev, T., Fernandez, S., & Leslie, C. A. (2021). Reversing the lens: Assessing the use of Federal Employee Viewpoint Survey in public

- administration research. *Review of Public Personnel Administration*, 41(1), 132–162. <https://doi.org/10.1177/0734371X19865012>
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698–714. <https://doi.org/10.1037//0021-9010.87.4.698>
- Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology*, 86(5), 825–836. <https://doi.org/10.1037//0021-9100.86.5.825>
- Roethlisberger, F. J., & Dickson, W. J. (1939). *Management and the worker: An account of a research program conducted by the Westinghouse Electric Company*. Harvard University Press.
- Rosseel, Y. (2012). lavaan: An R Package for Structural Equation Modeling. *Journal of Statistical Software*, 48(2), 1–36. <https://doi.org/10.18637/jss.v048.i02>
- Ruiner, C., Debbing, C. E., Hagemann, V., Schaper, M., Klumpp, M., & Hesenius, M. (2023). Job demands and resources when using technologies at work – development of a digital work typology. *Employee Relations*, 45(1), 190–208. <https://doi.org/10.1108/ER-11-2021-0468>
- Sajtos, L., & Magyar, B. (2016). Auxiliary theories as translation mechanisms for measurement model specification. *Journal of Business Research*, 69(8), 3186–3191. <https://doi.org/10.1016/j.jbusres.2015.12.007>
- Salama, W., Abdou, A. H., Mohamed, S. A. K., & Shehata, H. S. (2022). Impact of work stress and job burnout on turnover intentions among hotel employees.

International Journal of Environmental Research and Public Health, 19(15).

9724–9745. <https://doi.org/10.3390/ijerph19159724>

Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 14(3), 204–220.

<https://doi.org/10.1108/13620430910966406>

Schaufeli, W. B., Maslach, C., & Marek, T. (Eds.). (1993). *Professional burnout: Recent developments in theory and research* (1st ed.). Taylor & Francis.

<https://doi.org/10.4324/9781315227979>

Schein, E. H., & Bennis, W. G. (1965). *Personal and organizational change through group methods: The laboratory approach*. Wiley.

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Houghton Mifflin.

Shanock, L. R., Eisenberger, R., Heggestad, E. D., Malone, G., Clark, L., Dunn, A. M., Kirland, J., & Woznyj, H. (2019). Treating employees well: The value of organizational support theory in human resource management. *The Psychologist-Manager Journal*, 22(3–4), 168–191. <https://doi.org/10.1037/mgr0000088>

Sobiath, A. E. E., Gharbi, H., & Elnasr, A. (2022). Do you feel safe here? The role of psychological safety in the relationship between transformational leadership and turnover intention amid COVID-19 pandemic. *Journal of Risk and Financial Management*, 15(340), 1–16. <https://doi.org/10.3390/jrfm15080340>

Somers, M. J. (2018). Strategies for improving measurement models for secondary data in public administration research: Illustrations from the Federal Employee

Viewpoint Survey. *Public Administration Review*, 78(2), 228–239.

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

Soper, D. (2024). *Calculator: A-priori sample size for structural equation models*. Free Statistics Calculators.

<https://www.danielsoper.com/statcalc/calculator.aspx?id=89>

Statista Research Department. (2022). *Number of governmental employees in the U.S. from 1982 to 2021*. Statista.com.

<https://www.statista.com/statistics/204535/number-of-governmental-employees-in-the-us>

Strassburger, C., Wachholz, F., Peters, M., Schnitzer, M., & Blank, C. (2023).

Organizational leisure benefits — a resource to facilitate employees' work-life balance? *Employee Relations: The International Journal*, 45(3), 585–602.

<https://doi.org/10.1108/ER-10-2021-0428>

Theofanidis, D., & Fountouki, A. (2018). Limitations and delimitations in the research process. *Preoperative Nursing*, 7(3), 155–163.

<https://doi.org/10.5281/zenodo.2552022>

Tubaro, P. (n.d.). Research ethics in secondary data: What issues? *Data Big and Small*.

<https://databigandsmall.com/2015/10/18/research-ethics-in-secondary-data-what-issues/>

U.S. Department of Health and Human Services. (n.d.). *Health worker burnout*.

<https://www.hhs.gov/surgeongeneral/priorities/health-worker-burnout/index.html>

Vesna, M., Andrea, B-A., & Ana, J. (2023). The internal green marketing dimensions,

- employees' satisfaction, and employees' organizational identification. *Oditor*, 9(1), 47–70. <https://doi.org/10.5937/Oditor2301047M>
- Westland, J. C. (2010). Lower bounds on sample size in structural equation modeling. *Electronic Commerce Research and Applications*, 8(6), 476–487. <https://doi.com/10.1016/j.elerap.2010.07.003>
- Whittaker, T. A., & Schumacker, R. E. (2022). *A beginner's guide to structural equation modeling* (5th ed.). Taylor & Francis.
- Wynen, J., & Op de Beeck, S. (2014). The impact of the financial and economic crisis on turnover intention in the U.S. Federal government. *Public Personnel Management*, 43(4), 565–585. <https://doi.org/10.1177/0091026014537043>
- Yildiz, B., Kaptan, Z., Yildiz, T., Elibol, E., Yildiz, H., & Ozbilgin, M. (2023). A systematic review and meta-analytic synthesis of the relationship between compulsory citizenship behaviors and its theoretical correlates. *Frontiers in Psychology*, 14(1120209), 1–21. <https://doi.org/10.3389/fpsyg.2023.1120209>
- Zhang, H., Sun, L., & Zhang, Q. (2022). How workplace social capital affects turnover intention: The mediating role of job satisfaction and burnout. *International Journal of Environmental Research and Public Health*, 19(9587). <https://doi.org/10.3390/ijerph19159587>
- Zhao, X. (Roy), Wang, J., Law, R., & Fan, X. (2020). A meta-analytic model on the role of organizational support in work-family conflict and employee satisfaction. *International Journal of Contemporary Hospitality Management*, 32(12), 3767–3786. <https://doi.org/10.1108/IJCHM-05-2020-0371>


Zhong, L., Wayne, S. & Liden, R. C. (2016). Job engagement, perceived organizational support, high-performance human resource practices, and cultural value orientations: A cross-level investigation. *Journal of Organizational Behavior*, 37(6). <https://doi.org/10.1002/job.2076>

Appendix A: Accessing the 2022 OPM FEVS Public Release Data File

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Appendix B: Measurement Model Generation Observed Variables Results

Latent Variable	A Priori Observed Variables	Final Observed Variables
POS	<p>Q1 – I am given a real opportunity to improve my skills in my organization.</p> <p>Q2 – I feel encouraged to come up with new and better ways of doing things.</p> <p>Q6 – My talents are used well in the workplace.</p> <p>Q9 – I have enough information to do my job well.</p> <p>Q10 – I receive the training I need to do my job well.</p> <p>Q13 – I have a clear idea of how well I am doing my job.</p> <p>Q16 – In my work unit, differences in performance are recognized in a meaningful way.</p> <p>Q47 – My supervisor supports my need to balance work and other life issues.</p> <p>Q86 – The work I do gives me a sense of accomplishment.</p>	<p>Q1 – I am given a real opportunity to improve my skills in my organization.</p> <p>Q2 – I feel encouraged to come up with new and better ways of doing things.</p> <p>Q6 – My talents are used well in the workplace.</p> <p>Q9 – I have enough information to do my job well.</p> <p>Q10 – I receive the training I need to do my job well.</p> <p>Q13 – I have a clear idea of how well I am doing my job.</p> <p>Q16 – In my work unit, differences in performance are recognized in a meaningful way.</p>
ES	<p>Q43 – I recommend my organization as a good place to work.</p> <p>Q65 - How satisfied are you with your involvement in decisions that affect your work?</p> <p>Q67 - How satisfied are you with the recognition you receive for doing a good job?</p> <p>Q68 – Considering everything, how satisfied are you with your job?</p> <p>Q69 – Considering everything, how satisfied are you with your pay?</p> <p>Q70 – Considering everything, how satisfied are you with your organization?</p>	<p>Q43 – I recommend my organization as a good place to work.</p> <p>Q65 - How satisfied are you with your involvement in decisions that affect your work?</p> <p>Q67 - How satisfied are you with the recognition you receive for doing a good job?</p> <p>Q68 – Considering everything, how satisfied are you with your job?</p> <p>Q69 – Considering everything, how satisfied are you with your pay?</p> <p>Q70 – Considering everything, how satisfied are you with your organization?</p> <p>Q86 – The work I do gives me a sense of accomplishment.</p>
PS	<p>Q8 – I can disclose a suspected violation of any law, rule or regulation without fear of reprisal.</p> <p>Q48 – My supervisor listens to what I have to say.</p> <p>Q49 – My supervisor treats me with respect.</p> <p>Q79 – I am comfortable expressing opinions that are different from other employees in my work unit.</p> <p>Q80 – In my work unit, people's differences are respected.</p>	<p>Q8 – I can disclose a suspected violation of any law, rule or regulation without fear of reprisal.</p> <p>Q48 – My supervisor listens to what I have to say.</p> <p>Q49 – My supervisor treats me with respect.</p> <p>Q79 – I am comfortable expressing opinions that are different from other employees in my work unit.</p> <p>Q80 – In my work unit, people's differences are respected.</p>
BO	<p>Q5 - My workload is reasonable.</p> <p>Q12 - Continually changing work priorities make it hard for me to produce high quality work.</p> <p>Q34 - Employees in my work unit are typically under too much pressure to meet work goals.</p>	<p>Q5 - My workload is reasonable.</p> <p>Q12 - Continually changing work priorities make it hard for me to produce high quality work.</p> <p>Q34 - Employees in my work unit are typically under too much pressure to meet work goals.</p>

Appendix C: Factor Loadings for H2a, H2b, and H2c Measurement Models

	Latent Variable	Item Indicator	Std. Loading	SE	R ²
H2a	Perceived Organizational Support	Q1	.829	-	.687
	Perceived Organizational Support	Q2	.819	.004	.672
	Perceived Organizational Support	Q6	.819	.004	.671
	Perceived Organizational Support	Q9	.631	.003	.398
	Perceived Organizational Support	Q10	.655	.004	.429
	Perceived Organizational Support	Q13	.644	.003	.414
	Perceived Organizational Support	Q16	.648	.004	.420
	Employee Satisfaction	Q43	.863	-	.745
	Employee Satisfaction	Q65	.778	.003	.605
	Employee Satisfaction	Q67	.759	.003	.576
	Employee Satisfaction	Q68	.892	.003	.795
	Employee Satisfaction	Q69	.530	.004	.281
	Employee Satisfaction	Q70	.900	.003	.810
	Employee Satisfaction	Q86	.700	.003	.490
	Psychological Safety	Q8	.701	-	.491
	Psychological Safety	Q48	.705	.005	.467
Psychological Safety	Q49	.683	.004	.467	
Psychological Safety	Q79	.641	.005	.411	
Psychological Safety	Q80	.736	.005	.541	
H2b	Perceived Organizational Support	Q1	.834	-	.696
	Perceived Organizational Support	Q2	.822	.004	.676
	Perceived Organizational Support	Q6	.819	.004	.671
	Perceived Organizational Support	Q9	.624	.003	.390
	Perceived Organizational Support	Q10	.652	.004	.425
	Perceived Organizational Support	Q13	.645	.003	.416
	Perceived Organizational Support	Q16	.637	.004	.406
	Turnover Intention	DLEAVING	1.000	-	1.000
	Psychological Safety	Q8	.697	-	.485
	Psychological Safety	Q48	.710	.005	.504
	Psychological Safety	Q49	.689	.004	.474
	Psychological Safety	Q79	.641	.005	.411
Psychological Safety	Q80	.734	.005	.539	
H2c	Employee Satisfaction	Q43	.866	-	.750
	Employee Satisfaction	Q65	.767	.003	.588
	Employee Satisfaction	Q67	.746	.003	.557
	Employee Satisfaction	Q68	.895	.003	.800
	Employee Satisfaction	Q69	.534	.004	.285
	Employee Satisfaction	Q70	.909	.003	.826
	Employee Satisfaction	Q86	.690	.003	.476
	Turnover Intention	DLEAVING	1.000	-	1.000
	Psychological Safety	Q8	.701	-	.492
	Psychological Safety	Q48	.694	.005	.482
	Psychological Safety	Q49	.680	.004	.463
	Psychological Safety	Q79	.644	.005	.415
Psychological Safety	Q80	.746	.005	.556	

Note: All p values are $< .001$. The standardized loadings are reported. For items where standard errors are not reported, they were used to set the scale of their respective latent variables.

Appendix D: Factor Loadings for H3c Measurement Models

	Latent Variable	Item Indicator	Std. Loading	SE	R ²
H3c	Employee Satisfaction	Q43	.861	-	.742
	Employee Satisfaction	Q65	.769	.003	.592
	Employee Satisfaction	Q67	.743	.003	.552
	Employee Satisfaction	Q68	.897	.003	.805
	Employee Satisfaction	Q69	.537	.004	.289
	Employee Satisfaction	Q70	.910	.003	.827
	Employee Satisfaction	Q86	.689	.003	.475
	Turnover Intention	DLEAVING	1.000	-	1.000
	Burnout	Q5	.576	-	.332
	Burnout	Q12	.374	.007	.140
	Burnout	Q24	.594	.006	.353
	Burnout	Q34	.342	.006	.117

Note: All *p* values are < .001. The standardized loadings are reported. For items where standard errors are not reported, they were used to set the scale of their respective latent variables.