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# Differences on Employee Satisfaction and Intent to Leave Between Older and Younger Federal Leaders

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# Walden University

College of Management and Human Potential

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Alex Pierre Thames

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> > Walden University 2022

Abstract

Differences on Employee Satisfaction and

Intent to Leave Between Older and Younger Federal Leaders

by

Alex Pierre Thames

MS, University of Phoenix, 2007

BS, University of Southern Mississippi, 2004

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Management

Walden University

November 2022

Abstract

The retiring of an aging workforce leaves significant deficits in leadership positions across the federal government. As employee turnover increased, onboarding was not occurring at rates necessary to replace retirees, ultimately contributing to the leader deficit. The evidence was insufficient on how the employee satisfaction of both older and younger leaders affects their intent to leave and ultimately the leader deficit. The purpose of this quantitative study was to examine the differences in employee satisfaction and the intent to leave between older (i.e., age  $\geq 40$ ) and younger (i.e., age < 40) federal leaders to discern how their age influences their satisfaction and desire to leave federal service. Grounded in Herzberg's two-factor theory and Strauss and Howe's generation theory, the research questions addressed if the independent variable, categorized age of supervisory employees, had an effect on the dependent variables, employee satisfaction and intent to leave. Archival data from the 2016 Federal Employee Viewpoint Survey were analyzed. The results of the Welch t-test and Fisher's exact test (r x 2) found no significant statistical differences (p > .05) between the categorized age group of supervisory employees and the dependent variables, employee satisfaction (p = .152) and intent to leave (p = .512). As federal supervisory employees 'Under 40' showed lower satisfaction values and higher intent to leave values than supervisory employees '40 and over,' a key recommendation is to examine an employee's intent to leave over time. The implication for positive social change includes engaging baseline data on multi-generational contributions to leadership retention and management, thus informing and benefiting the possible retention and development of organizational leaders in the public sector.

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# Dedication

I dedicate this work to my wife, Monica, and son, Alexander, for their prayers, encouragement, and understanding. I also dedicate this to my parents, Sammie and Ivory Bell Thames, who instilled in me the foundation of prayer, persistence, hard work, and the value of higher education. I also dedicate this work to my siblings (i.e., Gloria Ann, Tammy Michelle, Rita Diane, Shelia Yvonne, and Sammy Lamont) for always ensuring that I felt the comfort and connection of family, even from afar. Lastly, I dedicate this to those loved ones who have transitioned to their heavenly home. I pray this work and those thereafter continue to make you proud as I continue to build bridges in your memory.

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And we know that all things work together for good to them that love God, to them who are called according to His purpose. (Romans 8:28)

First, I have to give all praise, honor, and glory to the Almighty and powerful God the Father, God the Son, and God the Holy Spirit. Your hand upon me, keeping me, guiding me, protecting me, and covering me is mere evidence to others of what one can do through You. May this work and those to come be testaments to the grace, mercy, favor, and blessings you've shown to me throughout this journey. Lord Jesus, I thank you... for everything. With you, the best is STILL yet to come.

To my beautiful and brilliant wife, Monica R. Thames, and my smart and handsome son, Alexander Pierson Thames: your love, encouragement, and comfort have been the main driver pushing me to complete this doctoral degree program. You would not let me quit. You would not let me settle for anything less. For the sacrifices, for understanding, late-night snacks, liquid encouragement, hugs, kisses, and just being there... With every fiber of my being, I thank you and I love you more than you'll ever know!

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# #OnwardAndUpward

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#### Chapter 1: Introduction to the Study

The anticipated retirement of an aging workforce has materialized as expected (Lewis & Pitts, 2018; Redlitz, 2013). In the federal government, many of the employees included in older generations also occupy a majority of leadership positions. These individuals are deemed essential and of significant influence given their paygrade and time in federal service (Maltempo & Robinson, 2014). Their retirement or exit from federal service has created a critical leadership vulnerability in the public sector that must be addressed (Buble, 2019; Tucker & Lam, 2014).

While multiple generations or age groups have always shared the federal workforce, the diversity between them at once has never been so high. Not only are younger workers entering the workforce, but they are also occupying positions of leadership and influence alongside their older colleagues. By age and years of service, leaders who identify with younger generations are not eligible for retirement. Research suggests that younger employees may voice and act upon their intent to leave their job before older employees (Ertas, 2015). However, the evidence of how younger employees in positions of leadership contribute to the deficit of leaders in the federal government (beyond the retirement of older employees) is lacking or does not exist (Cummings-White & Diala, 2013; Hamidullah, 2017). The circumstance surrounding this human capital issue reveals significant risks about the loss and retention of knowledge, skills, talents, and ultimately the ability to sustain the execution of an agency's defined mission. The findings of this study may inform an agency's strategies and efforts on leader hiring, training, development, transition, succession, and retention in a multi-generational workforce. In addition, the strategy informed may further enhance and promote engagement and relationship management between employees and leaders.

Serving as an introduction, this chapter begins with details on the background of this study. The problem statement, the purpose of the research study, the research questions, and the hypotheses are also included in this chapter. After highlighting the theoretical framework, the chapter concludes with the nature of the study, definitions, assumptions, scope and delimitations, limitations, significance to the field, and a summary of this chapter.

#### **Background of the Study**

Researchers have predicted a leader deficit in industries and organizations worldwide (Fiaz et al., 2017; Heyns et al., 2019; Redlitz, 2013). For example, statisticians in the late 1990s predicted the retiring of a large baby boomer population could create a deficiency of leaders in various organizations. This forecast eventually led researchers and organizations to examine the leader shortage and seek strategies to inform and address the deficit (Talley, 2018; Tucker & Lam, 2014). Leaders hold critical skills that, if lost and not monitored and managed, do nothing to address and close the gap in those skills and talents. The shortage of leaders and the criticality of this situation is a human capital issue and is categorized as an area of concern with significant risk (Cummings-White & Diala, 2013; Maltempo & Robinson, 2014; Ramsey, 2021). As attention was more focused on the retirement of older employees, this silent crisis and associated risk quietly grew (Ali, 2019). The number of employees separating from federal service continues to rise each year, and the onboarding rate of new hires is not sufficient to fill the growing employment vacancies (USBLS, 2019, 2020, 2021). If the human capital is not present to lead, address issues, and carry the mission of their employing organization, the innate ability of the federal government to serve the citizens of the United States of America is in jeopardy.

Research has primarily linked the deficit of leaders to the wave of retirements by leaders who identify with older generations or age groups (Dye & Lapter, 2013; Maltempo & Robinson, 2014; Partnership for Public Service, 2019). The departure of older employees from the workforce also placed attention on the growing generational diversity in the workplace. This shift in the workplace increased research interests in multi-generational workforces, as evidenced by current literature (Ertas, 2015; Rudolph et al., 2018; Stark & Farner, 2015). As the number of younger employees in the workplace increased, the generational growth diversified the workforce and introduced challenges rooted in differences between age groups of older and younger employees. These differences manifest through dissimilar or competing work values, attitudes, leadership styles and behaviors, work performance, engagement, and perspectives on varying phenomena, concepts, and experiences (D'Amato & Baruch, 2020; Rauvola et al., 2019).

Employees of both older and younger generations occupy federal leadership positions. The thoughts and opinions of younger employees are influenced by different societal experiences during their upbringing. Those societal experiences may also contribute to them having different perspectives on their intent to leave or separation from federal service (Christopher et al., 2018). Although younger employees are more apt to voice their intent to leave than older employees (Ertas, 2015), research lacks substantial evidence that informs how younger leaders contribute to the leader deficit in the federal government.

Federal agencies use the Federal Employee Viewpoint Survey (FEVS) annually to gauge the satisfaction and engagement of their workforce and analyze trends (both positive and negative). Archival data from FEVS were used to examine the differences in turnover intention and employee satisfaction between older federal leaders and younger federal leaders to discern how leaders associated with different generations contribute to the deficit of leaders in the federal government. There is extensive research on federal employee perspectives and attitudes on leadership, their intention to depart civilian service, justification (i.e., retirement, turnover, etc.), and how differences in these items can impact the federal workforce. However, the literature lacks empirical contributions that inform how these factors influence the presence of and need for leadership in a multi-generational federal workforce. Not knowing how younger leaders contribute to the federal leader deficit neglects the unique perspectives they bring and ignores the growing presence and offerings provided by federal government agencies' budding leaders. As the federal workforce continues to evolve, this knowledge gap may negatively impact how federal agencies can approach recruiting, developing, and retaining young leaders. Therefore, this research study expands prior research on employee satisfaction and turnover intention between older and younger leaders within the federal government.

#### **Problem Statement**

The issue that prompted me to search the literature is that with an aging workforce, the number of experienced, high-quality federal employees (many of whom hold leadership positions) is decreasing greatly (Ali, 2019; Buble, 2019; Partnership for Public Service, 2019). This deficit exposes a dire need for public sector leaders (USGAO, 2014). While the number of federal workers over the age of 60 (i.e., traditionalist and baby boomer generations) is greater than that of millennials (Buble, 2019), these older employees also occupy key leadership positions and influence in the federal government. More than 50% of senior leaders in the federal government are on track to leave the federal workforce by retirement within 10 years (Partnership for Public Service, 2019). These leaders may also intend to leave federal service for reasons beyond retirement (Ali, 2019). These intentions only represent the thoughts of leaders who identify with older generations when younger leaders are present within the federal government.

Workforces with both older and younger employees representing multiple generations influence organizational leadership and performance (Arrington & Dwyer, 2018; Ertas, 2015; Stark & Farner, 2015). Younger workers are more likely to voice their intent to leave (Ertas, 2015) and may contribute to the growing decrease in federal leadership. Outside of retirement, while researchers have pinpointed factors that can affect turnover and retention in multi-generational workforces (Lyons & Kuron, 2014), the examination of employee perceptions on leadership and turnover intention of leaders from both older and younger federal employees has yet to evolve. Although researchers have investigated this issue, there is very little or no literature on how both older and younger federal government leaders who complete the FEVS contribute to the growing leader deficit (Ali, 2019). Research from FEVS primarily identifies the retirement of older workers as a contributor to the increasing shortage of federal agency leadership (Lewis & Pitts, 2018). Federal leaders do identify with both older and younger generations; therefore, a leader of any age may contribute to the leader deficit.

The specific research problem addressed through this study is that while existing research has assessed employee satisfaction in older generations (Arrington & Dwyer, 2018; Ertas, 2015), it is unknown how the age of both older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) influences their satisfaction and desire to leave federal service. In having federal leaders spanning multiple generations, it is important to include the perspectives of leaders representing more than those who are older and retiring that the collective group of leaders (including those younger) may holistically inform on the deficit of public sector leaders. Older leaders have different views and styles that influence organizational effectiveness than younger leaders (Arrington & Dwyer, 2018). Federal agencies must discern if other contributing factors exist on turnover intention that they may inform strategies of leadership development and employee retention in multi-generational work environments (Rauvola et al., 2019; Rudolph et al., 2018). The forecast of a continuously revolving door of leaders may lead to shaky governmental affairs, challenges in leadership succession, poor talent management, and a loss of organizational knowledge, skill, and expertise.

#### **Purpose of the Study**

The purpose of this quantitative, causal-comparative, non-experimental study is to examine the differences in employee satisfaction and the intent to leave between older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. Research on the variables of interest focuses on leaders in the federal government that their perspective may inform the deficit of federal government leaders. The independent variable is the categorized age of the respondent exhibited by the FEVS and is measured on a nominal scale. The dependent variables are employee satisfaction and intent to leave and are measured on interval and nominal scales respectfully. This quantitative research design set the stage to examine variables with pre-existing quantitative measures using secondary data from the 2016 FEVS. The setting for this research study is the federal agencies defined within the executive branch of the United States federal government whose employees participated in the 2016 FEVS.

# **Research Questions and Hypotheses**

RQ1: What effect does the age of supervisory employees in the federal government have on employee satisfaction as captured by the 2016 FEVS?  $H_0$ 1: There is no significant difference in the dependent variable, employee satisfaction, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.  $H_11$ : There is a significant difference in the dependent variable, employee satisfaction, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

RQ2: What effect does the age of supervisory employees in the federal government have on intent to leave as captured by the 2016 FEVS?

 $H_02$ : There is no significant difference in the dependent variable, intent to leave, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

 $H_12$ : There is a significant difference in the dependent variable, intent to leave, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

# **Theoretical Foundation**

The theories that ground this study are Strauss and Howe's (1991) generation theory and Herzberg's dual-factor theory (Herzberg et al., 1959). Principles of generation theory posit individuals born during the same period of time (i.e., age) experience significant life moments that influence or indoctrinate shared commonalities (i.e., beliefs, values, and attitudes) between the same group of individuals (Strauss & Howe, 1991). Principles of Herzberg's dual-factor theory of motivation (Herzberg et al., 1959) assessed factors that influence an employee's satisfaction/motivation and dissatisfaction/demotivation in the work environment. Research by Lee (2020) certified Herzberg's dual-factor theory of motivation's relevance to discerning how turnover intention and other related factors captured by the FEVS tool (i.e., perceived leadership, employee satisfaction, etc.) impact employee work attitude. Both generation theory and Herzberg's dual-factor theory aided in analyzing and interpreting how turnover intention relates to cross-generational perceptions of leadership from the perspectives of supervisory employees in the federal government. Additional details regarding these theoretical propositions are provided in Chapter 2.

#### Nature of the Study

The approach toward answering the research questions of this quantitative, causal-comparative study included exploring the relationships between the independent variable (i.e., age of supervisory employees) and the dependent variables (i.e., employee satisfaction and intent to leave). Analyzing and interpreting data and writing the results were all part of this proposed research method (Creswell, 2014). This study was also nonexperimental, as there was no intent to manipulate any of the variables. This approach was based on the work of McCusker and Gunaydin (2015), who noted that a quantitative approach is common in studies that focus on understanding viewpoints and experiences by using statistical analyses to capture a holistic perspective of what a group thinks.

Analysis on archival, secondary data from the FEVS provided convenience, cost, and efficiency benefits to me. The data were downloaded from the FEVS website managed by OPM and included responses from employees of the federal agencies defined within the executive branch of the U.S. federal government that has successfully accessed and completed the 2016 web-based FEVS. One independent variable (i.e., categorized age group of the respondent) on a nominal scale and two dependent variables (i.e., employee satisfaction and intent to leave) that measure on an interval and nominal scale respectfully were examined. As the variables and their level of measurement from the research questions guided the type of statistical analysis used to best answer each research question, the Welch t-test and Fisher's exact test (r x 2) were ultimately used to test the hypotheses of RQ1 and RQ2 respectfully.

# Definitions

*Baby boomer*: a person born between the years of 1946 and 1964 (USOPM, 2016a).

*Categorized age of respondent:* the independent variable of this study that categorizes the age of each 2016 FEVS respondent as being age '40 and older' (representing older generations) or 'under 40' (representing younger generations). Per this study, the respondent is a 'federal leader.'

*Employee satisfaction*: an understanding noting that satisfaction is comprised of the good and bad feelings, emotions, thoughts, and opinions toward their job and workplace environment as a whole (Kuo, 2015). Employee satisfaction (of federal leaders) is a dependent variable of this study.

*Federal leader:* per this study, an employee of the U.S. federal government with a supervisory status designation as defined in this study.

*Federal Employee Viewpoint Survey (FEVS)*: a survey administered to federal employees to capture their perceptions, opinions, and satisfactions with their employer and workplace, the U.S. Federal Government (USOPM, 2016a).

*Generation*: individuals of a particular age group influenced by significant historical events and phenomena that share similar values, attitudes, beliefs, and experiences as they progress together through life and time (Strauss & Howe, 1991).

*Generation Xers*: also known as 'Gen-Xers,' are individuals born between the years of 1965 and 1980 (USOPM, 2016a).

*Generation Yers*: also known as "millennials," are individuals born between the years of 1981 and 1996 (USOPM, 2016c).

*Intent to leave*: the psychological process a person experiences when deciding to leave a position (Agarwal & Sajid, 2017). Also known as turnover intention, the intent to leave is a solid predictor of turnover (Cohen et al., 2016). Intent to leave is a dependent variable of this study.

*Supervisory status*: the official employment classification to identify leaders in the federal government who have 'recognized' authority and influence over people and processes. Supervisory status includes the following tiers: senior leader, manager, and supervisor. All others are classified as non-supervisory (USOPM, 2019b).

*Traditionalists:* also known as the "silent generation," are individuals born in 1945 or earlier. (USOPM, 2016a).

*Turnover*: the voluntary or involuntary separation of an employee from his employing organization. This study focuses on voluntary separation, which excludes death, layoffs, firing, etc. (Kim & Park, 2014).

#### Assumptions

The base assumption for this research study acknowledges that both older and younger federal employees representing multiple generations work together in the federal workplace. Given the selection of archival data from the 2016 FEVS, I assumed that the data were collected, analyzed, and stored as the 2016 technical report acknowledges; and that all participants in the 2016 FEVS assessment were indeed employees of the federal government (USOPM, 2016c). While I acknowledged that some participants in the 2016 FEVS may have felt uneasy answering some questions for fear of retaliation or with the belief that no change will occur, it was an assumption that participants in the 2016 FEVS participated in the study on their own free will and answered the survey questions honestly to the best of their ability based on their experiences as federal employees.

### **Scope and Delimitations**

The defined parameters or operational boundaries that guide the goal and purpose of a research study are the scope. Delimitations note the chosen constraints or characteristics that help define the scope and boundaries of a research study. They are decided and controlled by the researcher (Simon & Goes, 2013). In this study, the leader deficit in the federal government and perception of federal leaders with respect to turnover intention and employee satisfaction took center stage. The scope of FEVS participant responses were filtered to include only those federal employees with supervisory status and excluded those federal employees without supervisory authority. It was my hope that analyzing the perspectives of only federal leaders (i.e., those with supervisory authority) could inform the acknowledged leader deficit. The newest and youngest leaders entering the workforce are Generation Z (born after 1995; Arrington & Dwyer, 2018). The small number of federal employees who identify with this generation coupled with time in federal service and GS pay grade excludes them from being identified as leaders (employees with supervisory status) in the FEVS and excludes them from this study. Last, as the agencies who participate in the FEVS represent 97% of all government agencies, generalization of the results could occur when applied to the entire federal government; however, with the same lens, generalization is not applicable when applying the results of this study to a particular agency.

While other research options for this study included a qualitative research design, creating and using a self-design survey instrument to collect primary data for a quantitative research design or even a mixed-methods research design, I chose a quantitative design that used archival data from the FEVS. Quantitative designs depend on the collection and analysis of numerical data to answer the research question and ultimately prove or disprove the related hypothesis (Barnham, 2015; Edmonds & Kennedy, 2016). The FEVS (as designed and administered) presented archival data on the target population and already provided data on variables of interest (i.e., intent to leave, employee satisfaction, and categorized age of respondent).

# Limitations

Unlike delimitations, the researcher does not control limitations. The researcher may 'limit' the depth of the findings, thus impacting the results (Simon & Goes, 2013). In using secondary data and a quantitative design, there were some limitations to consider. This study aimed to analyze perceptions of federal employees with supervisory status. One limitation was the ability to generalize the research study results across all generations, as the 2016 FEVS only reflects the perceptions of those employees who participated in the 2016 survey. However, the randomization of the sample and the weights applied to the sample responses helped ensure an accurate representation of the survey population (minimizing biased estimates). Additionally, as the scope of this research study was bound by the variables of interest, there may be other variables outside the scope of this research study that could indicate stronger significance in the relationships examined. The cause of the relationship examined was also unknown.

#### Significance of the Study

This study was significant because one of the main goals of federal agencies is to serve the American people. Experienced and trained leadership is necessary to navigate the complex seas of change in times of high political climates, advancing technology, and polarizing shifts in business, globalization, and cultural and natural influences (Arrington & Dwyer, 2018). However, suppose both older and younger federal leaders in the workforce representing all generations feed the acknowledged leader deficit. In that case, the challenges presented by cross-generational values and perspectives may only exacerbate the problem (Lyons & Kuron, 2014). The research herein may support federal succession planning, leader development, and leader retention as it addresses the perspectives of young federal leaders representing the youngest generations.

# Significance to Theory

At the time of study, research that statistically supports the identified problem on the leader deficit as seen from the perspective of both older and younger federal leaders using the FEVS is extremely limited. According to Resh et al. (2021), only 48 peerreviewed, published articles used FEVS and a variety of management theories to examine issues and phenomena in public management and leadership. None of those articles addressed the research problem of this study directly. There were hundreds of academic dissertations, theses, and articles that provide empirical evidence on those exiting the workforce by retirement in the federal government by age and generation using FEVS. Yet, they were classified as non-peer-reviewed and were not used as sources in this research study.

This study used a reliable and consistent research tool (i.e., FEVS) and its data to inform what some describe as a "quiet crisis" of human capital (e.g., leader deficit in the federal government; Ali, 2019; Christopher et al., 2018). This study provided a deeper understanding of the impact of the leader deficit in a multi-generational workforce by examining turnover intention and employee satisfaction in both older and younger federal leaders. This study creates a segue to future strategies that address how agencies and leaders adapt to change introduced by younger generations. This study also serves as an entry to expanding the number of published research offerings addressing the stated research problem.

# **Significance to Practice**

This research has the potential to help government agencies explore and understand how the perceptions of both older and younger leaders across multiple generations can inform and explain challenges and barriers related to the retention, succession, and development of its leaders (Cummings-White & Diala, 2013; Hamidullah, 2017). The data from this research can potentially affect federal budgets, the delivery of technical and public services, management and operations, public policy, service to the public, and organizational performance. The shift in practice comes as agencies could focus more on fulfilling their mission versus remedying a human capital crisis with its leaders.

#### **Significance to Social Change**

As this research contributes to the body of knowledge regarding the retention and development of organizational leaders in the public sector, positive social change implications may include engaging baseline data from this research on multi-generational contributions to leadership retention and talent management. An increase in how agencies promote relations from the perspectives of both older and younger leaders across multiple generations can improve employee relations and reduce turnover (Kim & Fernandez, 2017). Thus, this study can potentially improve employee engagement and foster a more inclusive and distinct federal workforce that mirrors the customers it serves, the American people.

# **Summary and Transition**

The differences in employee satisfaction and the intent to leave amongst older federal leaders and younger federal leaders is the centerpiece this research study. Yes, the retirement of the older federal employees who identify with older generations clearly contributes to the leader deficit. However, as generational diversity in the federal government has been consistently peaking (Arrington & Dwyer, 2018), how young leaders who identify with younger generations contribute to this social problem is important to discerning strategies that combat this observed phenomenon.

This introductory chapter included the research problem and established the background. The research questions that inform the social problem and their supporting theoretical frameworks were stated. The boundaries of this study were defined in the nature of the study, key definitions, assumptions, scope and delimitations, and limitations. This study's significance, potential contributions, and potential implications provided value that solidified this study's justifications.

An in-depth review of related literature and theories pertinent to the social problem are provided in Chapter 2. With prior research on the variables of interest, the perspectives on the literature given in the next chapter inform a deeper understanding of those variables and how they influence a different yet related social problem. The literature synthesis shall tell the story of the social problem, describe the theoretical lens used to analyze and inform the social problem, and set the stage for testing the assertions or hypothesis to the research question.

#### Chapter 2: Literature Review

### Introduction

The purpose of this quantitative, causal-comparative, non-experimental study was to examine the differences in employee satisfaction and the intent to leave between older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. The specific research problem addressed through this study was that while prior research has assessed employee satisfaction in older generations (Arrington & Dwyer, 2018; Ertas, 2015), it was unknown how turnover intention and employee satisfaction in both older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) contribute to the deficit of public sector leaders. In having federal leaders spanning multiple generations, the inclusion of the perspectives of leaders representing more than those who are older and retiring that the collective group of leaders (including those younger) may holistically inform on the deficit of public sector leaders is important.

The exodus of experienced federal employees who hold leadership positions exposes a leader shortage and thus a need for public sector leaders. The referenced leader shortage is a human capital issue (Cummings-White & Diala, 2013; Maltempo & Robinson, 2014; Ramsey, 2021), majorly caused by the retirement of older federal leaders. Statistically, the number of leaders in older generations exceeds the number of leaders in younger generations (Buble, 2019). More than 50% of those leaders are expected to exit the federal workforce by 2030 through retirement (Partnership for Public Service, 2019) and signals high rates of transition in leadership. Previous research on this topic centered on how and the extent to which different perspectives between generations occur in the workplace (Costanza & Finkelstein, 2015; D'Amato & Baruch, 2020); in certain federal government agencies concerning perceptions of leadership, employee turnover, job satisfaction, and other criteria of interest (Arrington & Dwyer, 2018; Lu & Gursoy, 2016); and on the leader deficit due to the retirement of employees in leadership positions (Dye & Lapter, 2013; Maltempo & Robinson, 2014; Ponomariov et al., 2021). With leaders of varying ages spread across multiple generations in the federal workforce, there was very little or no literature that informed the contribution that young leaders may lend toward the leader deficit in the federal government beyond the retirement of older employees. Using Strauss and Howe's (1991) generation theory and Herzberg's dualfactor theory (Herzberg et al., 1959), this study targeted the differences between older and younger federal leaders who participated in the 2016 FEVS with respect to employee satisfaction and the intent to leave.

In this chapter, I review literature related to generation theory and workplace differences concerning employee satisfaction and the intent to leave of federal leaders. This literature review begins with a discussion on strategies used to search and find peerreviewed and academic articles and journals pertinent to the topic posed by the research problem and questions. The chapter continues with a critical examination of the theoretical foundation, an analysis of current research on the key variables and supporting theories for this study, a review of relevant terms in the discipline of management and leadership, a critique of relationships between the variables and the supporting theoretical frameworks (employee satisfaction and generational theory), and a synthesis on leadership (the quantity) and turnover intention with respect to the target population and research instrument of choice, FEVS.

### Literature Search Strategy

The strategy for this literature review primarily included a search and examination of online databases for scholarly, peer-reviewed articles within Walden University's library system. Most of the articles used to conduct this review were sourced from the following databases: EBSCOhost, ProQuest, Business Source Premier, Sage Online Journals, Academic Search Premier, and Educational Resource Information Center. Google Scholar was also used to locate additional research articles to inform further and develop a critical analysis of the topic. Key search terms included *leader*, *leadership*, public leadership, leadership development, perceived leadership, leader shortage, leadership shortage, leader deficit, leader satisfaction, leadership deficit, leadership succession, employee retention, employee turnover, employee development, employee motivation, employee satisfaction, turnover intention, intent to leave, multigenerational leadership, multigenerational workforce, generation theory, generational cohort, generationalism, traditionalist, millennials, baby boomer, generation x, generation y, generation z, dual-factor theory, motivation theory, public sector, federal government, federal employee perception, federal employee viewpoint survey, and FEVS.

Additionally, citations and reference listings from journal articles and sources obtained were used to identify and expand the literature search to achieve saturation. The date range used when searching by keyword for scholarly and peer-reviewed resources began with 2014-2019. However, I extended the date range to 2013-2022 to capture more research on the topic, variables, and target population.

#### **Theoretical Foundation**

Generation theory and Herzberg's dual-factor theory are the two theories used as the study's theoretical foundation. With *age location* as a descriptive component, generation theory asserts that individuals born during the same age or generation experience significant life moments that influence or indoctrinate shared commonalities (i.e., beliefs, values, and attitudes) between the same group of individuals (Strauss & Howe, 1991). Herzberg's dual-factor theory of motivation (Herzberg et al., 1959) assessed factors that influence an employee's satisfaction/motivation and dissatisfaction/demotivation in the work environment. Research by Lee (2020) certified Herzberg's dual-factor theory of motivation relevance to discerning how turnover intention and other related factors captured by the FEVS tool impact employee work attitude. Together, these two theories can help describe how generations affect an employee's satisfaction and their intent to leave. I expound on both theories in the following paragraphs.

# **Generation Theory**

Mannheim (1952), observed as the originator of generation theory, defined a generation as a collection of people birthed during a particular sequence of collective years (or generational eras). These people are bound together by significant, shared events experienced during their youth (i.e., work, wars, family, politics, globalization, industrialization, technology, etc.; Kuron et al., 2015; Macky et al., 2008; Mannheim,

1952). The time span in which these significant, shared events occurred has an influence and impact on an individual's behavior, attitude, beliefs, and perceptions. In understanding that an individual's personal experience of cultural phenomena during a generational era contribute to their behavior and perception of society, Inglehart (1977) extended Mannheim's claim and confirmed that a generation is a 'social construct' (not biological) that binds those born during a certain era who are influenced by certain social and historical experiences. These generations are also cognizant of their locale when experiencing significant phenomena and events. This research and others like it solidified Mannheim's work and theorized a generation as a social force in history that drives societal change and influences attitudes and behaviors (Rudolph & Zacher, 2017).

In 1965, another generational theorist named Ryder touched on Mannheim's generation theory by asserting that a generation is held together by significant events, cultural phenomena, and time (Costanza et al., 2012; Costanza & Finkelstein, 2015). Ryder posited that adding birth years as a generational descriptor suggests that generations are somewhat fixed (Lyons & Kuron, 2014; Ryder, 1965).

Strauss and Howe (1991) took it a step further and solidified the theory of generations in terms of age and location. These researchers posited that what individuals perceive and understand as significant or recurring themes and characteristics are likened to members of that same generation for each generation throughout history. This assertion by Strauss and Howe also included *age location* as a descriptive component and concluded that each generation is defined by the determined age and location of its members during significant phenomena or events during their lifetime. The study by
Strauss and Howe focused on American history. The perspective offered by these researchers notes that each generation, typically defined as about 17-20 years in length, has a unique perspective that results from sharing or growing up during a specific age in history. This perspective gave rise to social cohorts as it created the notion that historical, political, technological, economic, and sociological experiences and events at significant stages of their development differ. These experiences and events influence the values, behaviors, collective memories, and systems of individuals around the same age (Lyons & Kuron, 2014). In this amount of time, cultural changes can be mapped to one's behavior and perspectives (Howe & Strauss, 1991). During that age or time in history, social interactions and significant events that occur through their upbringing shape and influence their behaviors, beliefs, perspectives, and attitudes. These generations retain their distinct personalities with differing values and perceptions than those preceding and succeeding them, and also cement the link between age and significant events or phenomena encountered (Howe & Strauss, 1991, 2000; Strauss & Howe, 1991).

While the value systems and behaviors are akin to a generation and may remain steady throughout the span of a particular generation (Arsenault, 2004), not every individual identified by a particular generation or age group is influenced in the same manner by those same historical events and common experiences (Alwin & McCammon, 2007). With regional and cultural differences within a generation (Lyons & Kuron, 2014), the social and value systems influenced by those differences can impact every facet of an individual, including workplace behavior (Lyons & Kuron, 2014; Twenge & Campbell, 2008). Researchers also suggested that a group of individuals (regardless of age) who identify with multiple generations can also experience the same significant event or phenomena, such as the pandemic of 2020 (e.g., COVID-19). However, the generation an individual identifies with may respond differently than an individual from another generation while living the same experience (Kuron et al., 2015).

Research by Mannheim (1952) covered generation theory based in a smaller locale or geographic area. As Strauss and Howe (1991) assessed generations in American history, their approach covered a larger geographic area (i.e., the United States of America). Aligning with Strauss and Howe's inclusion of age as a descriptor under the umbrella of generation theory, Pew Research Center (Fry, 2015) predicated and used the age of an individual as a key indicator of differences between generations. Using age as a predictor further defines generations that researchers can discern differences between generations within the federal government (Ahmad & Ibrahim, 2015). While the target population for this study centers on two age groups (i.e., 40 and Over and Under 40) of federal employees across the entire United States of America, I intend to use generation theory as defined by Strauss and Howe (1991) to assess how the perspectives of both older and younger federal leaders from different generations inform the reported leader shortage in the federal government. Even though every person has a collection of beliefs, attitudes, and values that make him or her unique, they are a member of a generation or age group whose members share common attributes and characteristics. With this, understanding generation theory and its influence on and relation to the workforce offers awareness to how an employee from a particular generation associates to and perceives their work, ultimately their tenure with a particular employer.

### Herzberg's Two-Factor Theory

Herzberg's motivation-hygiene theory (e.g., motivation-hygiene theory), referenced herein as the two-factor theory of motivation (e.g., two-factor theory), also informed this study. To understand the relationship between applying the "whole employee" to their job and the success of their employing organization, research by Herzberg et al. (1959) brought forth a theory that examined motivation and hygiene factors that assess job satisfaction and job dissatisfaction among employees (e.g., what makes an employee happy). This theory grounds various studies on employee satisfaction across several industries (Alrawahi et al., 2020; Herzberg, 1974; Herzberg et al., 1959). In the workplace, Herzberg's motivation theory acknowledges two motivating factors toward job fulfillment: 1) motivators (job satisfiers) and 2) hygienes (e.g., job dissatisfiers; Herzberg, 1974).

Motivators, also known as intrinsic factors or rewards, are the primary drivers of job satisfaction. These intrinsic elements consist of include achievement, promotion or advancement, personal improvement and growth, appreciation or recognition, responsibility at work, and the work itself within the organization (Herzberg et al., 1959). Experiencing any combination of motivators can result in positive attitudes, increased engagement, and productivity in employees. Hygienes, referred to as the extrinsic factors or rewards, are the primary drivers of job dissatisfaction and are mapped to company or administrative policies, work conditions, status, benefits, salary, supervision, security, and work relationships (Herzberg, 1974; Herzberg et al., 1959). In this model, Herzberg posited that an employee can be both satisfied and dissatisfied simultaneously. In other words, employee satisfaction and dissatisfaction are mutually exclusive. Being more satisfied does not equate to being less dissatisfied and vice versa. The opposite of satisfaction is 'no satisfaction.' The opposite of dissatisfaction is 'no satisfaction.' The negation of satisfaction is not dissatisfaction and vice versa. Herzberg further suggested that decreasing employee dissatisfaction and increasing employee satisfaction could aid in employee motivation and retention. However, both sets of factors (motivators and hygienes) must be observed and tracked as hygiene factors alone can lead to increased dissatisfaction given the results of their application are short-term (Herzberg et al., 1959; Herzberg, 1974).

Another motivational theorist, Kahn (1990), touched on Herzberg's foundation on two-factor theory in a published article on personal engagement in the workplace. Kahn posited that employee engagement is best when the employee asserts himself totally into his job or role. With availability (opportunity), safety (employee security), and meaningfulness (self-worth) noted as key conditions for engagement, this theoretical construct by Kahn on employee engagement laid the groundwork from which current day research on employee engagement in the workplace is based (Kahn, 1990; Shuck & Reio, 2014). Scholars and researchers use this theoretical construct to assess employee engagement and its relationship with employee turnover and satisfaction across the psychology, organizational, and management disciplines (Hawkins & Chermack, 2014; Schaufeli, 2015).

A quantitative study by Hur (2018) explored the application of Herzberg's twofactor theory in the public sector (i.e., state employees). Having identified seven hygienes and seven motivators on job satisfaction for public managers, Hur executed a regression analysis to validate the effects the motivators and hygienes have on job satisfaction of public managers. Hur's research study used secondary data from National Administrative Studies Projects. The employee's job satisfaction served as the dependent variable. Hur went on to compare these public sector results to results of private-sector employees. Job satisfaction levels for public managers were significantly high where they noted advancement, responsibility, development, and the work itself as leading motivators. Amongst hygienes, job security, benefits, and salary were leading extrinsic factors and did not advance the job satisfaction in those public managers surveyed. Job satisfaction also showed a significant correlation to a majority of motivators but none of the hygienes. Moreover, Hur's research study confirmed that Herzberg's two-factor motivational theory could apply to managers and leaders in the public sector. The results of Hur's study, coupled with research that confirms job satisfaction as an important motivator for predicting employee perceptions (Notgrass, 2015), provide evidence in support of applying Herzberg's two-factor theory of motivation in the context of my research study.

# Leader Shortage and the Public Sector

The majority of research on the shortage of leaders centers on the retirement of an aging workforce in the industries/organizations assessed by those researchers. The importance of this focus by researchers acknowledges that employees in older generations fill a majority of leadership roles and positions in organizations worldwide. As a result, a significant amount of implicit and organizational knowledge is lost with their departure from the workforce. Researchers in academia address the shortage of

leaders due to the retirement of leaders in older generations across multiple industries, including healthcare (Gan, 2020; Kosterlitz & Lewis, 2017; Mossburg, 2018), education (Forthun & Freeman, 2017; Heyns et al., 2019), and in the public sector (Fiaz et al., 2017; Tucker & Lam, 2014). While it does not equate to a shortage of potential leadership talent, a deficit in leaders actively filling the role does impact organizational and employee performance, leadership succession, leadership retention, etc.

The public sector, specifically the federal government, is not immune to the leader shortage experienced in other sectors and industries. The organizational effects of this deficit are felt both near and far (Cummings-White & Diala, 2013). In research by Maltempo and Robinson (2014), older generations occupy essential positions of leadership and influence as evidenced by their General Schedule (GS) position of at least a Grade 13 or higher through positions up to the senior executive service (SES). The years of experience in the federal workforce spans at least 10 to 16 years by the rate and frequency of within-grade increases up to a GS step 10 where their tacit knowledge is attained. Dye and Lapter (2013) highlighted the growing retirement trend was significantly higher in leaders and management of older generations when compared to other sections of the government workforce. With consistently high turnover due to the expected retirement of older generations and increasing voluntary separations across the board (Ponomariov et al., 2021), the forecast is gloom for leadership in the federal government.

In the past, the federal government only had to worry about addressing the retirement of its aging workforce and its contribution to the leader deficit. However,

growing numbers of younger workers are joining the federal workforce. Moreover, given the increased likelihood that younger employees will voice their intent to leave a job before older employees (Ertas, 2015), they may act upon that intent to leave (Campione, 2015). With these notions, it is important to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. While it does not equate to a shortage of potential leadership talent, a deficiency in leaders actively filling the leadership role in organizations impacts organizational performance, leadership succession, retention, etc. It is here that researchers note scarcity in a holistic organizational understanding of the leader shortage problem in the public sector and contributions to the problem by other generations (Cummings-White & Diala, 2013; Hamidullah, 2017) beyond the retirement of older members of the workforce.

# Leadership and Generation Theory

Since the 1990s, scholars and theorists have continued to study and present literary work concerning the relationship between the influences of leadership and generations (Sessa et al., 2007). Theories presented by Diamant (1960) highlight differences between generations and their influences on the role of management and leadership. DeSalvia and Gemmill (1971) posited that "generation gaps" influence managerial and leader decisions and conclusions. Other scholars offered varying perspectives on generations and leadership by suggesting that leaders from different generations offer different forms of leadership (Anderson et al., 2017). More specifically, Rudolph and Zacher (2017) analyzed perspectives on leadership and generations that suggest that differences between generations affect work motivation, attitudes, and behaviors amongst leaders. These perspectives also posit that identifying with a particular generation or age group offers more meaning and value in forecasting motivation, attitudes, and behaviors in the workplace. Challenging the popular understandings and applications of generational theories, Rauvola et al. (2019) and Rudolph et al. (2018) analyzed and critiqued the generalization of generation theories to leadership, disputing what some call "myths" of generation theories. These studies cover a wide range of research perspectives about theories that intersect generations and leadership and acknowledge growing interests in the topic.

With increasing curiosity in the study of generations and leadership, the desire to discern how related theories and frameworks apply to the workplace has become increasingly popular. Smola and Sutton (2002) captured the importance of the study of generations and leadership when they wrote, "continued inquiry in this field is important to business leaders as they attempt to understand, motivate, and successfully lead the individuals in their organizations and function as good corporate citizens" (p.381). Sessa et al. (2007) based their research on differences in leaders and leadership with respect to generations through a literary review. Their review revealed that as multigenerational leadership teams grow and become the norm, it is important to discern and seek to understand how their differing perceptions and views by generations and groups manifest (i.e., attitudes, behaviors, and other outcomes; D'Amato & Baruch, 2020). With age as a descriptor, my research will extend the analysis of generation and leadership perspectives in the workplace and apply it to leadership in the federal workforce to discern the effects on the acknowledged leader deficit in the federal sector.

#### **Generations and Age Groups**

The orientation of today's American workforce consists of five generations, from the Silent Generation to Generation Z. In the federal government, the workforce has historically never been so generationally diverse (Arrington & Dwyer, 2018). However, there is inconsistency in how these generations are defined and in how the stereotypes identify with each other. Different scholars and researchers offer high variability in how they operationalize generation theory in their research. For example, for Generation Y, Cox et al. (2014) note the time span is 1986 and later. Herrando et al. (2019) defined it as 1981 through 1990. Yi et al. (2010) observed it as "the 1980s". While a majority of current scholars refer to and use the Strauss and Howe (1991) explanation of generational theory as the foundation of their research, I shall follow the categorization of generations as defined by the USOPM (2016a, 2019): the Silent Generation (born 1945 or earlier); Baby Boomers (1946-1964); Generation X, also known as 'Gen X' (1965-1980); Generation Y, also known as the 'Millennial Generation (1981-1996); and Generation Z (1997 and later). The paragraphs that follow contain descriptive details of each group.

### **Traditionalists (1945 or Earlier)**

Also known as the "silent generation" and "veterans," members of this generation are the oldest members of the federal workforce. Representing 1% of the federal workforce (USOPM, 2016a), traditionalists were older than age 70 in 2016. They grew up in family environments where the views and values of their parents shaped their values and influences. The mothers would tend the house and raise the children, while the fathers were the breadwinners who worked outside the home. Members of this age worked for everything they had with no resources to borrow or invest (Arrington & Dwyer, 2018). They have a great deal of respect for authority and tend to fail at adopting and understanding technology. Having grown up in a time with far fewer resources helps grant them the unique skill to manage and find satisfaction with few resources. Professionally, traditionalists support and respect structure, rules, policy, and procedure and tend to lean on their education (versus skill and performance) as their ticket to advancement (Arrington & Dwyer, 2018; Sessa et al., 2007).

## **Baby Boomers (1946-1964)**

Representing 46% of the federal workforce (USOPM, 2016a), members of this generation arrived in the years following World War II. Ranging in age from 51 to 70 years old in 2016, baby boomer parents were members of the military (or supported the military in some capacity or another) (Bennett et al., 2017). The traditional view of the family environment changed as mothers began working outside of the home (Arrington & Dwyer, 2018); thus, they experienced social change at rates that enabled them to adapt well with increased levels of self-reliance and independence. As a result, members of this age have a strong work ethic, are very productive, and hold great loyalty to their tasks, job, and employers (Ahmad & Ibrahim, 2015; Connaway et al., 2008). For these reasons, baby boomers hold high value in the workforce and contribute greatly to the success of an organization (Hoole & Bonnema, 2015). Moreover, believing that an individual's position, title, and money are lifetime goals, baby boomers continue to be present in the workforce at higher percentages due largely in part to working well beyond retirement

eligibility to support a variety of causes (i.e., elderly parents, children in college, etc.; Arrington & Dwyer, 2018).

### Generation X (1965-1980)

Representing 41% of the federal workforce (USOPM, 2016a), this generation grew up with the modernization of computers. In 2016, the youngest of Generation-Xers were just over age 35, while the oldest were near age 50. As opportunity seekers, members of this age are more inclined to desire and appreciate positions of management and leadership, personal and professional development, and build careers that are more resilient than their parents and predecessors. As a generation that can work alone with an entrepreneurial spirit, they strive for a work-life balance and are not foreign to sacrifice and hard work as they were raised and influenced by the baby boomer generation (Arrington & Dwyer, 2018; Sandeen, 2008; Selingo, 2018; Yawson & Yamoah, 2021). This generation is conscious about wealth and money, challenging hierarchy and rules as they communicate in informal ways. Compared to Baby Boomers, Generation X prefers employability and performance over job security (Arrington & Dwyer, 2018; D'Amato & Baruch, 2020).

# **Generation Y (1981-1996)**

Differentiating itself in terms of values, goals, and attitudes, Generation Y (also known as Millennials) accounted for 12% of the federal workforce in 2016 (USOPM, 2016a). Ranging from age 18 to not more than 35, members of this age used computers and various forms of technology in their educational development. The greatest difference in characteristics and behaviors between generations begins with millennials.

As fast learners of technology in the digital age of the internet and mobile devices, millennials exhibit great relationships with technology. They are socially connected, keener to team/group dynamics, and have an affinity for achievement and success as they are used to being evaluated and ranked throughout their lives (Howe & Strauss, 2000; Sandeen, 2008; Selingo, 2018; Weldy, 2020). Howe and Strauss (2000) identified seven significant characteristics of this generation: conventional, self-confident, sheltered, optimistic, pressured, team-oriented, and eager to achieve. While all generations have characteristics particular to them, these characteristics yield both opportunities and difficulties for any organization with millennials within its workforce. Though seen as deficient in interpersonal and communication skills, this generation is used for its more likable characteristics to help organizations change and adapt in ways to remain competitive on multiple levels (Grotkamp et al., 2020).

# Generation Z (1997 and later)

Members of Generation Z are active with electronics and are dependent upon technology and the internet. With short attention spans, this generation is more idealistic, outspoken and prefers to pursue education and their career interests earlier in life than other generations (Yawson & Yamoah, 2020). However, members of this generation are just beginning to enter the workforce (at a minimal level) and have yet to matriculate into positions of leadership within the federal government. Therefore, as this research centers on leaders in the federal government, the age of this generation at the time of this study disqualifies them from the target population. In this study, the aim is not to challenge or prove that the stereotypes and characteristics presented are or are not akin to each generation. I acknowledge that each group has different characteristics based on the definition of a generation as defined in this research study. As these characteristics help form the lens or perspective of individuals of a particular age in time who identify with a particular generation, this study examined the satisfaction value of both older and younger leaders covering multiple generations in the federal government and their intent to leave. Discerning how a particular group contributes to the identified leader deficit in the federal government could inform leadership development and employee retention and recruitment efforts.

### **Generations and the Workforce**

The current workforce includes workers and employees ranging from age 20 to 80 that span five generations (D'Amato & Baruch, 2020). Millennials are on track to occupy the largest portion of the professional workforce given baby boomer retirements (Axten, 2015; Fry, 2015); yet, baby boomers and traditionalists still account for the largest representation of leaders in the professional workforce. The differences between these generations create a diverse landscape of the professional workforce and bring attention to the work values, organizational processes, attitudes, retention, outcomes, and performance influenced by these differences (Rauvola et al., 2019). For example, baby boomers and older employees take pride in their work and treat it as an extension of themselves as their work aligns with the individual. Workforce members of Generation X view their jobs and careers as bridges to acquire knowledge and grow budding skills.

and recognition (Gordon, 2017). Acknowledging the increasing generational diversity of the current workforce, interests are increasing in the impact and influence of a multigenerational workforce that includes both older and younger workers (D'Amato & Baruch, 2020).

Aligning with Strauss and Howe's (1991) inclusion of age as a descriptor under the umbrella of generation theory, Pew Research Center (Fry, 2015) predicates and uses the age of an individual as a key indicator of differences between generations. Using age as a predictor further defines generations that researchers can discern differences between them and their members within the federal government (Ahmad & Ibrahim, 2015). The developed theory supporting different generations in the workplace offers a unique lens that helps highlight and inform differences amongst various age groups regarding perspectives, values, behaviors, attitudes, and outcomes.

Some scholarly researchers have questioned the influence and effects of these differences in the workplace (Costanza et al., 2012; Costanza & Finkelstein, 2015; Rudolph et al., 2018). Others like Kowske et al. (2010) wrote of more meaningful generational influences and effects while noting significant variations within generations versus between generations. This research study will focus on the impacts of the latter.

Studies that assessed the perceptions of a multiple generations in the workforce revealed significance in perceptions between each group (Lester et al., 2012; Zopiatis et al., 2012). Lyons and Kuron (2014), Twenge et al. (2010), and D'Amato and Baruch (2020) all produced research that revealed significant differences between generations regarding work-related values, attitudes, and outcomes. Diving deeper, Arrington and Dwyer (2018) completed a quantitative research study that established a correlation in the field of management and leadership between multiple generations and the workplace, specifically between members of senior management and supervisory management in the public sector.

Another sample of differences between generations harps on job security in the workplace as it has a lower priority amongst members of younger generations when compared to members of older generations (D'Amato & Baruch, 2020). This is supported by the added complexity of low job retention numbers amongst younger generations as they tend to exit jobs more swiftly than older generations (Campione, 2015). While understanding these factors and characteristics amongst generations are critical to developing strategies that address the hire/retention of employees (Nolan, 2015) and job satisfaction (Perry et al., 2013), misconceptions on generations can fan flames of conflict between these groups per work values and differences in perception (Urick et al., 2017). Nonetheless, research specific to the population of leaders brought by the generational shift and differences in the workforce may bring increased awareness and understanding of the effect of generation theory as the retirement of baby boomers has exposed a growing yet unique challenge (Twenge, 2010).

# **Employee Satisfaction and Intent to Leave in the Workplace**

With a multigenerational workforce, each generation may have different perspectives, reactions, beliefs, and attitudes with regards to employee satisfaction and turnover intention (Bennett et al., 2012). While researchers have analyzed and examined employee satisfaction and turnover intention, few have compared the relationships of multiple variables (e.g., job satisfaction and turnover intention) between generations or age groups in the workplace. Even fewer have applied their research within the public sector, namely the federal government.

In analyzing the moderating effects generational differences can have in the workplace, research by Lu and Gursoy (2016) examined the relationships between employee satisfaction, the intent to leave, and burnout between the most active workforce generations (i.e., Gen Y, Gen X, and Baby Boomers). Seeking to inform complications brought on by a multigenerational workforce, the quantitative, non-experimental study by Lu and Gursoy (2016) found significance in its moderation of generational differences on the relationship between employee satisfaction, the intent to leave, and burnout. While the research study by Lu and Gursoy (2016) examines employee satisfaction, the intent to leave, and burnout in the hospitality and tourism industry (i.e., a service industry), the executive branch of the federal government is also largely in part a service-based workforce as it exists solely to execute specific missions in service to its customers, the American people. Therefore, its quantitative approach on a service-based population is noted as an example pertinent to this study.

Citing the challenges of a multigenerational workforce, researchers Abate et al., (2018) also examined generations in the workplace per employee satisfaction and turnover intention, plus burnout and job tenure. This quantitative, non-experimental study sampled employees from the banking industry via an online survey created by combining elements from existing research tools that assess employee satisfaction, turnover intention, and burnout. Using a multiple regression analysis, the study results revealed statistically significant relationships between employee satisfaction and turnover intention and burnout based on their generational identity. More specifically, employee satisfaction was a clear predictor of an employee's intent to leave. However, while this study statistically links satisfaction with turnover intent, its assertions cannot be generally applied to other industries (i.e., public sector, federal government).

Anticipating the departure of skilled workers due to retirement, research by Christopher et al. (2018) assessed the turnover intention in Generation-X employees that it might inform the growing human capital crisis of a shortage due to retirement. Analyzing job satisfaction and its effect on turnover intention, Christopher et al.'s (2018) quantitative study on Australian employees of Generation-X was moderate with no significant correlation (neither negative nor positive) between job satisfaction and intent to leave. The conclusions yielded Generation-X employees indicated positive feelings toward job satisfaction. While the surveyed participants of this study were registered nurses representing every state and territory from Australia (similar to participants in the annual FEVS), the region and industry are different. Therefore, they may yield different results and conclusions if conducted in another region (e.g., the United States) or another industry (e.g., public sector, federal government).

The majority of remaining research on satisfaction and turnover intention hinges on the growing presence of younger employees in the workforce compared to the exit of 'older' employees. The job satisfaction of employees identified as millennials grows as they mature and their experience increases. High turnover in this generation has helped them gain the desired level of experience that helps them understand and discern the needs of their employer and how they can meet those needs. With that, the turnover amongst younger employees and their desire to hold a job that meets their career needs are correlated (Tee, 2013; Wee, 2014).

In a research study of younger generations, 60% of millennial employees acknowledged actively looking for a job. However, their job search or intent to leave is not always predicated on being dissatisfied (Ware, 2014), even though job satisfaction is a top priority (Jalnawala, 2018). Research by Ertas (2015) assessed the turnover intention of millennials in the face of a looming retirement season for older workers in the public sector (i.e., federal government). Ertas (2015) found that millennials are increasingly likely to voice their intention to leave their job before older generations. Some employers even began to acknowledge and accept the fact that younger employees will leave their current jobs within two years (Lawson Williams National Staff Turnover Survey, 2018).

While the relationship between turnover intention and employee satisfaction has been explored in the federal government (Ertas, 2015), its general application to the acknowledged leader deficit in the federal government is not possible without statistical support. As the federal government seeks to learn more about its younger workforce, how younger employees in the federal workforce view turnover intention through their own satisfaction necessitated scholarly attention. Ultimately, the challenge of finding, maintaining, and keeping human capital while facing increasing turnover rates continues to be a struggle as employees of younger generations matriculate into positions of leadership in the federal government. Of all the research that analyzed satisfaction and turnover intention using a generational lens, with no respect to industry or location, the specific examination of federal leaders in this context is still evolving.

#### **Federal Government**

### **Overview and Workforce Snapshot**

Beyond the United States Postal Service (USPS), uniformed military, and the intelligence community, the executive branch of the U.S. federal government employed an estimated 1.9 million people at the end of 2016 (USOPM, 2016b) and growing to just over 2.1 million people (estimated) during the year 2019 (USOPM, 2019). In service to the people, these federal civilian employees all support the visions and goals that fulfill the missions of over 15 executive departments and more than 80 agencies. With the main duty of each department and agency being to administer and enforce federal laws pertaining to their concentration area, federal civilian employees take pride in being of service to their country and its citizens (U.S. Congressional Research Service (USCRS), 2020; USOPM, 2019). Together, these federal employees help ensure the nation's agriculture, commerce, defense, education, energy, health and human services, security (homeland), housing and urban development, wildlife and natural resources, crime and justice, labor, domestic and foreign policy, transportation, financial infrastructure, and veteran affairs for the more than 300 million United States citizens.

Currently, the federal civilian workforce consists of employees that cover five generations. With Traditionalists and Generation-Z holding the fewest number of federal employees, the majority of federal employees identify with the remaining generations (e.g., Baby Boomers, Generation-X, and Millennials). Per a profile on the federal workforce compiled by the Partnership for Public Service (2019), 71.3 percent of the federal workforce were over the age of 40 at the end of the 2017 federal fiscal year. Diving deeper, 45.3 percent of the federal workforce was over the age of 50 at the end of federal FY2017. Many leaders in the federal government within range of these ages identify as Baby Boomers, Traditionalists, or older members of Generation-X. Members of these generations leave federal service by retirement through natural matriculation (e.g., years of service), if not by other means. This identifies older generations as contributing members to the decrease in federal leaders. It also identifies retirement as one of the leading justifications for their exit. However, as leaders are within the ranks of younger generations, how do they contribute to the loss of federal leaders and the leader deficit? As their age and time in service may not qualify them for retirement, it is important to discern their justifications for exiting federal service.

The federal government regularly examines differences in employee perceptions, attitudes, and influences through a generational lens. With turnover expected across multiple generations, the need to sustain as an organization has increased the value of employee turnover and retention. The federal government also seeks to understand the factors that contribute to turnover and retention (USOPM, 2019). The efforts that support these interests include leadership development programs designed for federal leaders of all levels.

Additionally, thousands of new employees are on-boarded into the federal civilian workforce in place of those who are leaving. However, the number of new employees hired is not enough to replace those leaving federal service (USOPM, 2017). Coupled

with federal leaders departing federal service who do not know how vital their knowledge is to the organization, valuable organizational knowledge is in turn lost, and a gap in the workforce is thereby exposed and magnified (Kaplan, 2013).

# Leadership Tiers of Federal Government

With no respect to a particular generation, organizational managers and leaders are the face of the organization (Nelson & Svara, 2015). They help develop and frame how effective an organization is. The three-level tier of management in the federal government is the face of leadership in the organization. In ranking order, these three levels include senior leaders (i.e., senior executive service members), managers (i.e., directors and branch chiefs), and supervisors. The primary role of senior leaders in the federal government is to lead the federal workforce under their directorate into executing the mission and vision of their assigned agency and service area. Managers, the second level of federal management, provide direction and guidance of the department or mission area goals and employees they oversee. Managers must be able to discern and understand senior leaders' vision that they may translate to their supervisors and other subordinates the target of the mission. Supervisors are the third tier of federal management. With limited authority in the mission execution of their agency, this group of management maintains the daily operations and directly influences the performance of employees, their department, their agency, and the entire government (Arrington & Dwyer, 2018; USGSA, 2018; USOPM, 1998).

### Workforce Challenges

Historically, the federal workforce has never contained so many generations at once; therefore, it has never been as diverse as it is today (Arrington & Dwyer, 2018). As younger generations join the workforce and older generations continue working beyond their initial eligibility for retirement, a generational shift is occurring. Each generation continues to bring the beliefs, attitudes, goals, behaviors, and values likened to it into the workplace (Bennett et al., 2012). As a result, the shift in beliefs and values amongst the federal workforce began and is still taking place. This generational shift requires leaders and managers to discern how each generation or age group affects and influences the organizational climate (Arrington & Dwyer, 2018). The perceptions of this ever-evolving workforce support that organizational climate. The employees of this changing workforce hail from primarily four generations and do have their challenges. With differences in views and beliefs between generations, the current environment of the federal workforce has traditionalists and baby boomers working with members of generation-x and generation-y. These differences create unique challenges that are oftentimes difficult to accept and digest. For example, the workforce is increasing in younger generations that understand and embrace technological innovation and change. Embracing technical innovation and change is a struggle for older generations; thus, creating a unique situation that could be difficult to manage (Valcour, 2013). Research by Costanza and Finkelstein (2015) supports this unique situation. These researchers compiled studies from multiple research studies that posit the need to understand generational differences in the workforce. Leaders and managers who understand the varying generations and what they

bring into the workplace improve relations between generations in the workplace (Valcour, 2013) and could impact employee satisfaction, turnover, and recruitment. In fact, values identified within each generation differs significantly. This includes job values (Twenge et al., 2010). Leaders in the federal government need to understand the impact generational differences and work values have on the workforce for it is the leader's role to set the organizational climate through which their vision directs how the government's mission, goals, and results are achieved (Arrington & Dwyer, 2018). This supports the suggestion by Campione (2015) that generational differences amongst leaders in the workplace need additional research. The outcome of growing generational differences amongst leaders in the workplace could be less favorable with negative consequences (i.e., declining leadership) if the challenges (i.e., poor understanding of generational diversity in the federal workforce) cannot be understood, addressed, managed, and mitigated (Nelson & Svara, 2015).

# Federal Employee Viewpoint Survey

# **Background and Overview**

The Office of Personnel Management (OPM) began surveying federal employees biennially in 2002 with the Federal Human Capital Survey (FHCS). The FHCS initially targeted employee perceptions of specific conditions in their particular workplace or office. However, by 2010, the survey evolved into what is known today as the Federal Employee Viewpoint Survey (FEVS) and was adjusted to include items from the Annual Employee Survey (AES). With this adjustment, the survey's focus shifted to concentrate on measurable items that enable agencies to track action items and changes influenced by FEVS results. With this new label and identity, OPM FEVS became an annual exercise that provides governmental leaders with a snapshot of how their employees perceive their work environment. This web-based survey quantifies the perceptions of full-time, parttime, permanent, and non-seasonal federal employees and has been used to forecast, plan, and justify leadership strategies and decisions since its inception. As a result, it continues to serve as a data source of high-quality.

While leadership has the lowest rates amongst federal employees, FEVS research variables of turnover intent, job satisfaction, and performance are often the leading variables analyzed by agencies (Fernandez et al., (2015). With the ability to analyze and maintain FEVS data over time, governmental leaders review the results of the FEVS to diagnose and improve accountability, discern employee engagement, and identify opportunities for growth and improvement while acknowledging successes revealed via FEVS results (Byrne et al., 2017; Goldenkoff, 2015; USOPM, 2021).

# **Literature on FEVS**

As administered by the OPM, FEVS aims to help discern if the federal workspace and environment promotes or contributes to employee satisfaction and retention (Fernandez et al., 2015). Federal leaders and researchers use FEVS as a temperature gauge on the organizational health of the federal workforce to help depict how employees perceive their employer and work environment (USOPM, 2019a). Researchers have examined the FEVS and its data in scholarly literature that assesses the tool's abilities, strengths, and limitations and the use of FEVS in areas of leadership and management. Publications by Fernandez et al. (2015) continued in that researchers often use FEVS to measure and understand phenomena and concepts pertinent to the federal government's performance, leadership, and management. In fact, the results of FEVS play a critical role in helping leaders develop policy that targets agency performance. More so, the historical data it captures allows leaders to chart trends and changes over time (Arrington & Dwyer, 2018). Goldenkoff (2015), a scholar-practitioner on the FEVS, posited that researchers and practitioners alike must understand the limitations and strengths of the survey when using it to assess and improve the performance and effectiveness of agencies within the federal government. Goldenkoff continued in acknowledging that agencies who used FEVS saw improvement in managing the relationship between leaders/managers and employees with at least three years of using data from the FEVS (Goldenkoff, 2015).

In a quantitative, correlational research study, Notgrass (2015) used FEVS of 2013 to show the correlation between job satisfaction (dependent variable) and five other variables from FEVS with the intent to determine the predictability of an employee's job satisfaction based on those five variables. The five variables were leadership interactions, manager focus on organizational goals and objectives, manager focus on performance management, workplace protective measures, and perceived unit effectiveness (Notgrass, 2015). Significant correlations between the dependent and independent variables confirmed that the blend of these variables increases the predictability of employee job satisfaction.

Lewis and Pitts (2018) employed the FEVS of 2012 in their quantitative study that examined the growing wave of federal retirement and the factors that influence the decision to retire. This study separated leaving federal service by retirement from other reasons to leave federal service (i.e., quitting) and only focused on exiting federal service by retirement. Even though leadership had the strongest impact on federal employees' decision to retire, they usually do not decide to retire at first eligibility. Not retiring does not negate the fact that they will leave federal service within a short number of years. Their continued presence in the workforce exacerbates challenges as they may clash with younger generations entering the workforce. Acknowledging the aging workforce and the potential loss of leadership experience and key organizational knowledge, scholarly interests in employee turnover, retirement, and employee retention in the federal sector have grown in recent years (Kim & Fernandez, 2017; McCarthy et al., 2020). Variables from the annual FEVS can help agencies discern the health of their agency per these variables. However, research on generational differences and other factors (beyond retirement) that target federal employees in leadership positions via the government's primary tool for measuring employee perception (e.g., FEVS) is sparse.

In another comparative analysis on perceived accountability and turnover in the federal government, Daley (2017) provided a critical review on the FEVS of 2013 (i.e., variables, indices, etc.). As other researchers (i.e., Lee, 2015) suggested that FEVS data is not valuable to leaders when planning for the workforce of the future, Daley posited that the FEVS of 2013 was not designed as an instrument for academic research given it does not conform to a particular set of academic survey design guidelines. However, Daley noted FEVS as a holistic tool to assess the federal government's management of its employees' effectiveness, perception, and mission. Nonetheless, given Daley's research focus and target population, FEVS was used as it was the primary tool that measured (in

some capacity) the variables of interest for the research at that time. The results suggested that using employee engagement duplicates phenomena already explained by assessing satisfaction related to turnover intention and accountability. The results further validated the use of FEVS as a viable research tool for evaluating management and leadership. Daley's use of correlations and regressions on job satisfaction and engagement (independent variables) with outcome measures of accountability and intent to leave/exit (dependent variables) determined significant correlation. It offered this relationship between these variables to measure productivity in the public sector (Daley, 2017).

Lastly, Arrington and Dwyer (2018) presented a quantitative study using FEVS of 2015 that assessed the employee's perspective of managerial effectiveness by generation. This study by Arrington and Dwyer highlighted the generational differences in the federal sector and analyzed its weight on the value of the state of the federal workplace. While correlation was found, only millennials and generation Yers had a statistically significant relationship with the three levels of management examined in this study. Limitations acknowledged participants with trust issues in the confidentiality of the FEVS tool might have only answered the questions they considered to be fact and not revealing. As a result, the FEVS tool and data provided an increased empirical understanding of the generational differences in the federal workplace using the FEVS and data.

## **2016 FEVS, Theories, and Variables**

As sent to selected survey participants, FEVS contains the questions that solicit responses to capture the perception of federal employees per the sub factors and indices FEVS covers. The indices and subfactors captured by FEVS cover the intended variables

and target population of my research study. USOPM extracts several variables from other government personnel databases (e.g., Enterprise Human Resources Integration – EHRI) to match and analyze demographics by the individual respondent. However, beginning with the 2017 FEVS, the U.S. Office of Personnel Management (USOPM) began to exclude certain variables, fields, and data from its FEVS public data file that could potentially identify the respondents of FEVS. Unfortunately, USOPM does not release any individual-level data beyond its public release data file as many of its demographics are sourced from its EHRI system. As the data file from FEVS 2016 is the most recent dataset released by USOPM that contains age group categories for its respondents, the 2016 FEVS is the dataset chosen dataset for this study.

The 2016 FEVS consists of 98 items, 85 items of which targeted employee perceptions across eight topic areas: (1) personal work experiences, (2) work unit, (3) agency, (4) supervisor, (5) leadership, (6) satisfaction, (7) work-life programs, (8) demographics (personal and employment) (USOPM, 2019). Participants in the survey included full- and part-time, permanent, and non-seasonal employees as well as non-political employees with a hire date of October 2015. Invitations to participate in the 2016 FEVS were sent to 889,590 federal employees. Citing a survey return of 45.8 percent, over 407,700 employees responded. The response rate increased slightly when compared to previous years (e.g., 40.6% for FEVS 2018) (USOPM, 2019).

The motivators and hygienes of Herzberg's two-factor theory that can predict job satisfaction and motivation are found in the critical conditions of the Employee Engagement Index (EEI) section of the OPM FEVS. The foundational framework or

structure for this section of the FEVS asserts that organizational or workplace conditions (motivators and hygienes) influence engagement thoughts, beliefs, and perceptions that ultimately lead to engagement behaviors, performance, and satisfaction. While the theoretical framework used to develop the FEVS survey is unknown, scholarly work by Byrne et al. (2017) tested FEVS and its ability and consistency in assessing federal employees' engagement and satisfaction. While the focus of research by Byrne et al. (2017) was on FEVS 2014, the FEVS has not been adjusted for several years (neither 2014 nor the years that follow, including 2016). The questions from FEVS measure employee perceptions on leadership, supervisor, and satisfaction. As the technical reports on FEVS do not note the specific theory used in its development, Byrne et al. (2017) examined the application of Herzberg's two-factor theory and another theoretical model (i.e., JD-R model) to the FEVS. While Byrne et al. (2017) used quantitative data from two sources (one being FEVS 2014), the results relevant to FEVS and its alignment with the basis of two-factor theory revealed a non-hypothesized direct influence on turnover intention by FEVS. This study gives academic value to FEVS's consistent ability to assess employee perceptions and their turnover intention. For this study, I will calculate the mean of values from the 'My Satisfaction' section of the survey (i.e., Questions 63 thru 71) in the 2016 FEVS to derive the employee satisfaction value for each survey participant (i.e., one of the dependent variables) values. Intent to leave is calculated from Question 94, another dependent variable. See Appendix A for questions examined from the FEVS instrument.

#### **Turnover Intention and FEVS**

Several factors in the workplace contribute to an employee's decision to separate or leave federal service. In fact, research by Ertas (2015) notes that employees are choosing not to remain with the same employer for a variety of reasons. Per the United States Bureau of Labor Statistics, employee separations in the federal government rose from 14.3 percent in 2018 to 16.4 percent in 2019 (USBLS, 2020). Increasing employee separations coupled with the lowest hiring ratio per job opening of 0.29 across all industries in 2019, the federal government did not hire at a rate that combats growing employee separations from federal service (USBLS, 2019, 2020, 2021). Those separations could be the decision to retire or the decision to quit as federal employees have endured furloughs, pay and hiring freezes, overarching politics, data and integrity breaches, decreased funding, and government shutdowns. Research by McCarthy et al. (2020) recorded resignations as accounting for the largest portion of voluntary turnover, followed by retirements. Both of these are forms of 'turnover.' The negative effects of turnover on an organization include an interruption in work processes and productivity, decreased morale, increased costs in finding and training a suitable replacement, and can negatively impact performance and create long-term challenges (McCarthy et al., 2020).

A majority of the federal workforce identify with the older generations (i.e., Traditionalist and Baby Boomer) (UPOPM, 2019). These employees of older generations hold positions of leadership and influence and are often presented with options to stay (i.e., retention) as they approach retirement, given the shortage of ready and capable leaders to step up and lead in their absence (Lewis & Pitts, 2018). Wynen and de Beeck (2014) suggested that the looming retirement of older generations shall expose a gap in numbers and talent, and create a challenge to the person and backfill their lost knowledge. The separation of these employees from federal service implies a loss of experience and leadership. This only accounts for leaders across two generations, Traditionalist and Baby Boomer, and one contributing factor, retirement (Lewis & Pitts, 2018).

With complexities that can arise from multigenerational differences in views and perspectives amongst the federal workforce, the result of older generations working alongside younger generations can include increased employee turnover and decreased productivity (Arrington & Dwyer, 2018). Ertas (2015) determined that job satisfaction is a key predictor of one's intent to leave. While the acknowledged turnover intention of an employee does not always result in actual separation from their current employer (Cohen et al., 2016), it does not remove the fact that there is an expressed desire to leave. Younger employees (i.e., millennials) are also kin to act upon a transfer or intent to leave before older generations leave (Kosterlitz & Lewis, 2017). As millennials may express a desire to separate from federal service before older generations, they have neither the years of service nor the age to retire. While retirement is a separation factor for older generations, it is not a separation factor for younger generations as they are not eligible given the requirements for retirement. As research into the turnover intentions of generation-X and generation-Y using FEVS data is scarce, it is difficult for leaders to build strategies and development programs that address how younger employees feel about their job. These perceptions can help identify influences that negatively affect

turnover and help develop ways to decrease it. Turnover intention is seen as an intentional and purposed desire to leave. If differences are found with the inclusion of younger generations (whether significant or not), federal agencies should act swiftly to discern the causes and consequences of those employees' withdrawal and departure.

### **Summary and Conclusions**

Following an in-depth, comprehensive search of peer-reviewed and scholarly literature on the research study in this chapter, we acknowledge that the turnover rate of leaders in federal service exposes a leader deficit and presents a unique challenge to the sustainment and success of governmental affairs and human capital management. With Strauss and Howe's generation theory (1991) and Herzberg's two-factor theory (Herzberg et al., 1959) as theoretical lenses, this literature review provided a unique perspective on leadership and management in a workforce that contains five generations working alongside each other and the differences and challenges encountered as a result. The literature also presented a workforce snapshot of the executive branch of the U.S. Government. It also addressed how FEVS captures federal employee perceptions of their work environment and creates agency policy to strengthen identified weaknesses. The expectation and predictability of turnover intentions for federal employees in older generations were noted. However, as employees identified in younger generations have higher predictability to express or act upon their turnover intention than older generations, the influence of their satisfaction as young leaders on their intent to leave was statistically unknown using the FEVS. The chosen research methodology, approach,

design, target population, and analysis plan to examine this study's identified problem is discussed further in the next chapter.

### Chapter 3: Research Method

## Introduction

In a multigenerational workforce, organizations should discern how various generations or age groups influence or impact its organizational climate and environment (Arrington & Dwyer, 2018). While the retirement of the older age groups naturally contributes to the leader deficit in the federal government, the contribution of younger age groups to the shortage of federal leaders is unknown. Herein, the findings of this research study contribute empirical research on assessing the differences in older and younger federal leaders per employee satisfaction and their intent to leave to the body of knowledge in leadership and management.

The purpose of this quantitative, causal-comparative, non-experimental study was to examine the differences in employee satisfaction and the intent to leave between older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. With the review of scholarly literature given in Chapter 2 on the variables of interest, greater details on the research design and rationale are provided in this chapter. Greater specifics on the variables for this study, a review of the methodology and population, and additional details on archival data from FEVS are also presented in this chapter. The data analysis plan and threats to validity are also discussed.

## **Research Design and Rationale**

As the research design is an overall strategy used to logically integrate various elements of study to address a research problem, the design is the researcher's blueprint to collect, measure, and analyze data (Creswell, 2014). Its purpose is to ensure the researcher obtains the information to answer the research questions as unambiguously as possible. To obtain that information, the design guiding this research study was quantitative and causal-comparative. The quantitative approach to research allows researchers to collect data from preexisting populations to identify perceptions on phenomena experienced (Barnham, 2015; Quick & Hall, 2015). When the sample is statistically representative or identical to the population of interest, conclusions can be generally applied or inferred to that population of interest (Zikmund, 2001). Thus, the data collected can be quantified to produce scientific, statistical evidence that can be justified. Furthermore, the quantitative approach makes assessing data from Likert scales (as used in the FEVS) possible, practical, probable, and efficient when comparing items that influence or affect perceptions (Koksal et al., 2014).

Using data provided by FEVS, this research study examined the statistical differences between older and younger supervisory employees in the federal government with regard to employee satisfaction and intent to leave. Dependent variables are the objects being tested and observed to discern their interaction with independent variables. Independent variables are *independent* as they are not affected by other variables and are assumed to cause an effect on other dependent variables (Holton & Burnett, 2005). With this acknowledgment, the dependent variables were employee satisfaction and intent to leave. Within the FEVS data set, the scales of the dependent variables (i.e., employee satisfaction and intent to leave) measured as interval and nominal variables respectfully (Holton & Burnett, 2005). Per the FEVS data set, the independent variables was the

categorized age group of the respondent (i.e., age less than 40 and age greater than or equal to 40). This variable was categorical with a nominal level of measurement.

Research with causal-comparative designs majorly compares two independent groups within one independent variable (Frankfort-Nachmias & Nachmias, 2008; Trochim, 2006). This study had one independent variable with comparisons being made between its two independent groups (i.e., age less than 40 and age greater than or equal to 40). This research design was also non-experimental in that there were no controlling variables (Holton & Burnett, 2005).

The FEVS was the instrument selected given the target population (i.e., federal government) and the instrument's history and familiarity in gauging the temperature of the federal government through the perspectives of federal employees and the identified variables. The FEVS is conducted annually and captures age-related values for survey respondents each year. The data set from the 2016 version of FEVS was the most recent data set that contains age categories for each survey respondent in its data file for public use (beyond official government use). FEVS data sets for years 2016-2021 contained neither age categories nor age-related data for use beyond top-secret agency use. The heads of the more than 80 government agencies participating in the FEVS have the ability to request and access the complete, raw data set for their particular agency. Herein, each agency can analyze the data that include items intentionally excluded from the public data file (i.e., age, generational cohort, etc.). With the results of this study, agencies can gain a more detailed, historical perspective on the leader deficit in their agency via their own examination of FEVS data per their particular agency. In this manner, the social
problem was assessed using the chosen instrument and variables identified in the research questions.

### Methodology

### Population

The population for this research study consisted of federal employees across 80 agencies in the executive branch of the U.S. government with an active pay status as of October 2015. The selection of this population was proper given its relevance to the social problem and its importance in deriving an answer to the proposed research questions. This population included employees who were in a permanent, non-political, both full- and part-time, and non-seasonal work classification. Employees of the USPS, uniformed military, and the intelligence community were not identified in this population and were excluded as participants of the annual FEVS. The target within this population consisted of federal employees who participated in the 2016 FEVS.

## **Archival Data**

As a web-based survey, the 2016 FEVS covered 84 items on a 5-point Likert scale assessing relevant topic areas such as turnover intention, job satisfaction, and a section on employee demographics (USOPM, 2016c). As the data from FEVS is collected, archived (by year), and made available to the public for increased circulation, it is 'archival data.' Archival data is used by researchers with limited access to restricted or very particular populations (i.e., federal employees) (Turiano, 2014). The FEVS diverse participant population captures data that has informed more than 40 published studies in

scholarly literature across a variety of phenomena observed in the federal workplace (Fernandez et al., 2015).

#### **Data Collection**

The U.S. Office of Personnel Management (USOPM) generated a probability sample by agency based on a 'Graduated Proportional Sampling (GPS) plan.' This method of sampling has been used since 2012 and helps ensure a high probability (95%) that the sample is within 1% (+/-) of the estimated total federal workforce. USOPM extracted pertinent information on the employees identified in the sample from the primary personnel database for government employees (i.e., the Statistical Data Mart of the Enterprise Human Resources Integration – EHRI SDM; USOPM, 2016c).

Sampled employees received emails with an invitation to participate in the FEVS for that particular year. OPM shares FEVS solicitation materials with participating agencies in efforts to bolster and strengthen support for FEVS participation. Over a period of two waves, the period for data collection for the 2016 FEVS ran from April 26, 2016 to June 16, 2016. OPM sent weekly reminder emails to sampled employees throughout the entire collection period who had yet to respond to previous requests for participation in the 2016 FEVS. A final reminder was sent on the last day of the collection period. The sampled email is provided in Appendix B. To be counted as a valid and complete survey response, respondents needed to answer at least 25% of the survey (21 of 84 questions). Of nearly 1.9 million federal employees eligible to participate in the 2016 FEVS, OPM solicited from 889,590 employees. With a response rate of 45.8%, 407,789 employees from 80 agencies responded. Covering 98 survey items, participants

in the 2016 FEVS responded to questions that assessed their eight topic areas. OPM researchers used interim coding to classify the status of each invitation sent to sampled respondents in terms of complete, incomplete, refused, undeliverable, pending, no response, etc. (USOPM, 2016a; USOPM, 2016c).

The results and published datasets for the FEVS are made available to the public at no cost via the USOPM website for FEVS (https://www.opm.gov/fevs/) for general use. No additional approval was needed to access and use the public information for research purposes. The information released to the public removed any data or references that could directly or indirectly identify any FEVS respondent. Senior executive officials at each agency can access and analyze the complete, unedited data set; however, it is for official government use only and cannot be accessed or given to the general public, as it is considered sensitive information.

### **Data Analysis Plan**

USOPM extracted and paired pertinent respondent demographic data (i.e., date of birth, age, etc.) from the EHRI and matches it with FEVS data (by respondent record) for analysis and reporting purposes. FEVS notes the age group of survey respondents in the demographics section of its survey results and reports. Yet, the public data file that OPM released for public and academic use does not include a respondent's age, citing privacy concerns to protect the identity of survey respondents. Alternatively, the 2016 FEVS dataset provided by OPM was the most recent FEVS data set with age-related data for survey respondents and identifies each FEVS respondent as being either 'Under 40' or '40 and over.' As such, I categorized the four generations pertinent to this study to align

with the data values for the independent variable in the 2016 FEVS public data file. Table 1 shows how the generation (as defined) aligns with the categorized FEVS age group. The '40 and over' value captured survey respondents in older generations. The 'Under 40' value captured survey respondents in younger generations whose contribution to the leader deficit has not been statistically assessed. Employees who were age 40 in 2016 were born in 1976. As a result, the 'Under 40' group consisted of all generation-Y participants (12% of the total participants) and 27% of the younger generation-X participants (11% of the total participants). Thus, the 'Under 40' group contained 23% of total participants. The '40 and Over' group had 77% of the participants consisting of 73% of the oldest generation-X participants, all of the baby boomers, and all of the traditionalists. Neither mediating nor moderating variables were present to manipulate or control other variables; thus, this study is non-experimental (Holton & Burnett, 2005).

# Table 1

Generation vs Categorized Age Group of FEVS Respondent

Generation	FEVS age group
Traditionalist	40 and Over
Baby boomer	40 and Over
Generation X	40 and Over
Generation Y	Under 40

To determine the differences in the means among the chosen dependent variables, I downloaded and used IBM SPSS Statistics, Version 27 for Windows. According to Ong and Puteh (2017), there are a variety of software tools academic researchers and social scientists use when analyzing quantifiable data. While some are more user-friendly than others, choosing the wrong software analysis tool could negatively affect the research outcome. When performing a comparison or correlation analysis on interested variables, IBM statistical software is preferred and is used widely amongst scholar-practitioners and researchers alike (Ong & Puteh, 2017).

This research study had one independent variable (i.e., age group of respondent) measured on a nominal scale and two dependent variables (i.e., employee satisfaction and intent to leave) measured on an interval and nominal scale respectfully. The 'My Satisfaction' section of the 2016 FEVS contains Questions 63 through 71 that address a respondent's satisfaction with different features or conditions of their job (i.e., training, pay, advancement opportunities, awards and special recognition, and overall satisfaction). The response to these questions and their assigned values were used to derive the value for the dependent variable, employee satisfaction. The original values assigned to these survey responses by USOPM for the questions in this section were retained for the analysis of this study. The values for those survey responses were Very Satisfied = 5, Satisfied = 4, Neither Satisfied Nor Dissatisfied = 3, Dissatisfied = 2, and Very Dissatisfied = 1. The mean of these questions was used to assess value of the dependent variable 'employee satisfaction' per survey respondent who identify with supervisory status in this research study (USOPM, 2016a). As used in this research study, employee satisfaction had an interval level of measurement. Question 94 was used to assess the second dependent variable, a respondent's 'intent to leave.' As used in this research study, 'intent to leave' had a nominal level of measurement (USOPM, 2016c). If values were not provided for all questions identified to calculate the independent and dependent

variables, that respondent's entire survey entry was flagged and not included in the calculation of any variables or descriptive statistics.

USOPM extracts several variables from other government personnel databases (e.g., Enterprise Human Resources Integration – EHRI) to retrieve, match, and analyze certain demographic data for each survey respondent. The independent variable, age group of the respondent, requires a respondent's date of birth to compute. However, a respondent's date of birth is considered personally identifiable information (PII) and is not a value captured by FEVS. As USOPM strives for high data accuracy and integrity of the FEVS and its data, USOPM researchers and analysts matched and retrieved each respondent's date of birth as recorded in each employee's personnel file within the EHRI (USOPM, 2016c). This action removed the risk of a respondent not being truthful or skipping survey questions about his age, date of birth, and generation.

Guarding the privacy of FEVS survey participants, USOPM does not release any individual-level data and purposely excludes or redacts certain variables, fields, and data from its FEVS public data file that could potentially identify the respondents of FEVS. Specifically, a respondent's age, date of birth, and generational affiliation were not included in the public data file. To provide age-related demographic data that protects the confidentiality of survey participants, USOPM researchers provided a field, DAGEGRP, that identifies each survey participant as being either 'Under 40' or '40 and over.' This field created by USOPM is used to identify, categorize, and assess a respondent's age group. As used in this research study, the independent variable, categorized age of respondent, had a nominal level of measurement.

The variables and their level of measurement from the research question guided the type of statistical analysis used to best answer each research question. Given this criterion for data analysis, the independent-samples *t*-test was initially the most appropriate statistical test to assess RQ1 given its ability to seek the statistical difference between multiple groups to prove a particular outcome or hypothesis (Holton & Burnett, 2005). In the dataset for FEVS 2016, the custom field DAGEGRP is dichotomous in that it is one variable with two independent groups (Frankfort-Nachmias & Nachmias, 2008; Laerd Statistics, 2017). This field also provided the values for the independent variable. The mean of the responses to FEVS Questions 63 thru 71 per survey participant provided the value for the independent variable, employee satisfaction (See Appendix A). The validation and analysis of the data, sample, and variables per RQ1 confirmed the satisfaction of the preliminary statistical assumptions for the independent samples t-test (i.e., 1- one dichotomous independent variable; 2- independent observations; 3- one continuous dependent variable) (Laerd Statistics, 2015). However, details containing the validation and analysis of the remaining statistical assumptions, the final statistical test, and the results are provided in Chapter 4 (Laerd Statistics, 2015).

Per RQ2, both the independent and dependent variables of RQ2 were of nominal levels of measurement. Question 94 from the 2016 FEVS provided the values for the dependent variable in RQ2 (See Appendix A). The validation and analysis of the data, sample, and variables per RQ2 confirmed the satisfaction of the preliminary statistical assumptions for the chi square test of homogeneity (i.e., a multinomial dependent variable, dichotomous independent variable, independent observations, and random sampling) (Laerd Statistics, 2017a). The chi-square test of homogeneity was initially chosen to assess RQ2. However, details containing the validation and analysis of the remaining statistical assumptions, the statistical test, and the results are also provided in Chapter 4 (Laerd Statistics, 2017a).

To determine the minimum sample size needed to achieve statistical power at a significant level for this study, I conducted a power analysis using G\* Power software (version 3.1.9.7) for the statistical test identified with the hypothesis test for each research question. Using the effect size and alpha level, this power analysis quantified the probability to find a statistically significant effect, if it truly exists. This justified the sample size for this study that its results best inform the research problem given the resources at hand (Faul et al., 2007).

Per RQ1, the effect size and power served as inputs to a priori power analysis using G\* Power software to determine the minimum required sample size needed to achieve power at a significant level. The computations used Cohen's (1992) effect size convention value of .50 for a medium effect. The power analysis also included statistical power of 0.80 (or an error rate of 0.2) and an alpha level of 0.05 with two groups, which is standard for quantitative studies (Faul et al., 2007). For RQ1, the minimally required sample size as calculated by the power analysis was 128 (64 samples per group) (see Figure 1).

Per RQ2, the effect size and power also served as input to a priori power analysis using G\* Power software to compute the minimally required sample size needed to achieve power at a significant level. The computations used Cohen's (1992) effect size convention value of 0.30 for a medium effect. The power analysis also included statistical power of 0.80 (or an error rate of 0.2) and an alpha level of 0.05 with two groups, which is standard for quantitative studies (Faul et al., 2007). Degrees of freedom (Df) is equal to (r-1) times (c-1) where *r* is the number of categories of the independent variable (i.e., 2) and *c* is the number of categories of the dependent variable (i.e., 4). With four possible responses to survey Question 94 representing the dependent variable in RQ2, the degrees of freedom was 3. The power acknowledged an 80 percent chance of correctly rejecting the null hypothesis of no difference between sampled proportions with 122 participants. For RQ2, the minimally required sample size as calculated by the power analysis was 122 (see Figure 2). The *random sample of cases* function in SPSS was used to randomly select 128 participants (the higher of the two outputs from the power analyses) from the dataset to help determine if statistical significance was present in testing the hypotheses for both RQ1 and RQ2.

# Figure 1

# G\*Power: Sample Size for Independent-Samples t-test (RQ1)



# Figure 2

*G\*Power: Sample Size for Chi-Square Test of Homogeneity (RQ2)* 



### **Research Question(s) and Hypotheses**

RQ1: What effect does the age of supervisory employees in the federal government have

on employee satisfaction as captured by the 2016 FEVS?

 $H_01$ : There is no significant difference in the dependent variable, employee

satisfaction, based on the level of the independent variable, categorized age of

supervisory employees, as captured by the 2016 FEVS.

 $H_1$ 1: There is a significant difference in the dependent variable, employee satisfaction, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

RQ2: What effect does the age of supervisory employees in the federal government have on intent to leave as captured by the 2016 FEVS?

 $H_02$ : There is no significant difference in the dependent variable, intent to leave, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

 $H_12$ : There is a significant difference in the dependent variable, intent to leave, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

### **Threats to Validity**

Validity is the degree or magnitude to which the research results accurately reflect and represent the phenomena observed or experienced by survey participants (Andrade, 2018). Fernandez et al. (2015) noted FEVS as a research tool with great generalizability as it reaches over 95 percent of all federal agencies in its annual assessment. Though the construct validity is not noted by the authors of the FEVS tool and was indeed a limitation (Fernandez et al., 2015), Cronbach's Alpha was used to measure the reliability of the nine 5-point Likert-type survey questions from the My Satisfaction section in the 2016 FEVS used for the dependent variable, employee satisfaction. Cronbach's Alpha was chosen as it is considered to be the most common measure of scale reliability where multiple Likert questions present a scale whose reliability is unknown or needs validation (Gliem & Gliem, 2003; Laerd Statistics, 2018; Taber, 2018). With possible values ranging from 0 to 1, the Cronbach's alpha calculated from SPSS for these nine questions indicates a high level of internal consistency with a value of  $\alpha = .922$  (see Table 2). Taber (2018) suggests that acceptable values for Cronbach's alpha are greater than or equal to .70. Values of  $\alpha > .90$  are considered 'strong' and 'excellent' given the max value is 1 Taber, 2018). Using that rule of thumb, the construct validity was detected and verified with a high level of internal consistency.

The concept of randomized sampling used in the data collection process of FEVS avoids bias in participant selection. It does not discriminate in its inclusion or exclusion of federal employees of all levels (e.g., team members up to senior management). Industry-standard, calculated weights were created and included to account for bias in the population and participant nonresponse and will be used to test the hypotheses for each research question.

## Table 2

### Cronbach's Alpha – Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha based on standard items	N of items
.922	.923	9

Following each data collection window for FEVS, a two-part process processes the data for quality control. In Part I, two programmers or researchers independently generate reports from the dataset using SAS only to compare the results for a match. Part II, USOPM statisticians compare the input data (per SAS) to the output (generated reports built by survey data) for accuracy (USOPM, 2016c). Internal threats to validity are minimized as only one research tool (i.e., FEVS) was used in this quantitative research study as participant responses to multiple instruments can introduce an internal threat. The annual administration of the FEVS allows USOPM researchers and statisticians to prune and tune the research tool to focus on future trends and issues. Scholar practitioners and researchers have used and will continue to use the FEVS instrument and data in scholarly research; thus, confirming its content validity.

### **Ethical Procedures**

Particulars of ethical concern center on the complete protection and confidentiality of all survey participants. References or inferences to personally identifiable information (e.g., PII) in the public data file from the 2016 FEVS were removed before the publication of the data. Anonymous ID numbers are intentionally coded and used in the dataset to protect survey participants. While the complete dataset remains available on the USOPM website for FEVS, the copy attained for this research study remains stored on an encrypted external medium (i.e., hard drive) for a period of 5 years to be deleted only thereafter.

### **Summary**

In this chapter, a thorough presentation of the research design, methodology, and rationale for this study was presented. With the identified quantitative approach, a causalcomparative non-experimental design was the best path to answering the research questions that addressed the identified social problem. As a blueprint for others to replicate this study in the future, this chapter also included details covering the research questions, hypotheses, variables, target population/sample, data source, threats to validity, and ethical acknowledgments. Chapter 4 continues with details on data collection, research findings and results, and a data analysis that connects the results to the research questions and hypotheses.

### Chapter 4: Results

### Introduction

The purpose of this quantitative, causal-comparative, non-experimental study was to examine the differences in employee satisfaction and the intent to leave between older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. The specific research problem addressed through this study was that while existing research has assessed employee satisfaction in older generations (Arrington & Dwyer, 2018; Ertas, 2015), how turnover intention and employee satisfaction in both older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) contribute to the deficit of public sector leaders was unknown.

The research questions and related hypotheses are restated in the next section. As the data collection process by USOPM was reviewed and detailed in Chapter 3, this chapter begins with a continuation of that process from my inception of the downloaded dataset from USOPM's website. Following a refresh of this research's purpose, research questions, and hypotheses, the discussion continues with details of the data screening/validation process, statistical assumptions of each statistical test chosen, and the statistical analyses used to test the hypotheses of each research question. This chapter ends with an overview and summation of the findings, and a transition to Chapter 5. The original research questions and hypotheses are reiterated below.

#### **Research Questions and Hypotheses**

RQ1: What effect does the age of supervisory employees in the federal government have on employee satisfaction as captured by the 2016 FEVS?

 $H_01$ : There is no significant difference in the dependent variable, employee satisfaction, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

 $H_11$ : There is a significant difference in the dependent variable, employee satisfaction, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

RQ2: What effect does the age of supervisory employees in the federal government have on intent to leave as captured by the 2016 FEVS?

 $H_02$ : There is no significant difference in the dependent variable, intent to leave, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

 $H_12$ : There is a significant difference in the dependent variable, intent to leave, based on the level of the independent variable, categorized age of supervisory employees, as captured by the 2016 FEVS.

### **Data Collection**

Per USOPM, data collection for the 2016 FEVS ran from April 26, 2016, to June 16, 2016, with sampled participants receiving solicitations and reminders by email to participate. Of nearly 1.9 million federal employees eligible to participate in the 2016 FEVS, OPM solicited from 889,590 employees. With a response rate of 45.8%, 407,789

employees from 80 agencies responded. These responses were captured in the data file made available to the public by USOPM (USOPM, 2016a; USOPM, 2016c). As the data collection was conducted by USOPM (before my inception of the public data file), there were neither discrepancies nor deviances from the data collection plan presented in Chapter 3.

I downloaded the public data file for the 2016 FEVS in the form of a .ZIP file from the OPM website to my secured, external hard-drive. The public data file included a comma-delimited (CSV) file containing the 2016 FEVS responses, a code book that detailed information about the data and fields, an SPSS syntax file to load the data into SPSS, and a read-me document providing a summary of the contents of the zipped public data file. A copy of the original public file was saved to an encrypted, thumb drive for risk management purposes.

I imported the CSV data file into Microsoft Excel and screened the data and fields for accuracy. All questions except 63-71, 94, and demographics variables were removed, as they were not needed to answer the research questions. As supervisory status is the chief criterion for this study, responses from federal employees with non-supervisory status were deleted, leaving 80,364 responses from only federal employees with supervisory status.

The means of values from the 'My Satisfaction' section of the survey (i.e., Questions 63 through 71) were used to derive the employee satisfaction value for each survey participant (i.e., the dependent variable for RQ1). Intent to leave is calculated from Question 94 (i.e., dependent variable for RQ2). Nearly 4,000 participants (i.e., 3,881) were flagged and deleted from the data set, as responses were not recorded for all of the questions required to calculate the independent and dependent variables. The remaining survey participants (i.e., 76,483) with supervisory status answered all questions related to the variables of interest. This data set was saved with password protection as a CSV file and imported into SPSS.

The dependent variables and key demographic variables were recoded into new variables with numerical values instead of character values for consistency. The variables for supervisory status, age group of respondent, sex, minority status, and intent to leave were recoded to use numerical values (i.e., 1, 2, etc.) versus character values (i.e., A, B, etc.). For a detailed look at the variables and their recoded values, see Table 2.

The 'My Satisfaction' section of the 2016 FEVS contains Questions 63 through 71 that address a respondent's satisfaction with different features or conditions of their job (i.e., training, pay, advancement opportunities, awards and special recognition, and overall satisfaction). The response to these questions and their assigned values were used to derive the value for the dependent variable, employee satisfaction. The original values assigned to these survey responses by USOPM for the questions in this section were retained for the analysis of this study. The values for those survey responses were Very Satisfied = 5, Satisfied = 4, Neither Satisfied Nor Dissatisfied = 3, Dissatisfied = 2, and Very Dissatisfied = 1. As no single value was provided to represent the overall employee satisfaction per survey respondent, the mean of these questions was used to assess the value of the dependent variable 'employee satisfaction' per survey respondent who

identify with supervisory status in this research study (USOPM, 2016a). Its value was calculated and placed into the custom SPSS field EMP\_SATSFCN.

### Table 3

FFVS variable	Recoded variable	Old	New	Description
	Recorded variable	value	value	Description
DAGEGRP	AGE_GROUP	А	1	Age group of respondent
		В	2	
DSUPER	SPVSRY_STAT	А	1	Supervisory status
		В	2	
DMINORITY	MINORITY	А	1	Minority status
		В	2	-
DSEX	SEX	А	1	Sex
		В	2	
DLEAVING	LEAVE_INTENT	А	1	Intention to leave
		В	2	
		С	3	
		D	4	

Recoded Variables, Values, and Descriptions

In Chapter 3, G\*Power analyses were conducted to determine the minimal sample size needed to achieve statistical significance per research question and their statistical test. Choosing the higher calculated minimal sample size of 128, I used the 'select cases' function in SPSS to randomly select 128 participant entries for the final sample (64 per group of the dichotomous independent variable). It is with this randomly selected sample size of 128 that I conducted an independent t-test to discern if the independent variable, age of supervisory employees, had an effect on employee satisfaction. I also use this same randomly selected sample of 128 to conduct the chi-square test to discern if the independent variable, age of supervisory employees, had an effect on intent to leave.

#### **Study Results**

### **Descriptive Statistics**

Aligning with the criteria outlined in Chapter 3, all participants in the sample were federal employees with supervisory status who completed the 2016 FEVS. Demographic criteria originally included in the 2016 FEVS were later excluded from the public release files. The only demographic criteria available in this data set included sex (gender), minority, supervisory status, federal agency, and age group.

In the federal government, the number of male federal employees in leadership positions is more than that of female employees in leadership positions (Gruber, 2015; Nelson & Piatak, 2021). Of the federal employees in the 2016 FEVS, 48% are female, and 52% are male. Those with supervisory status include 39% females and 61% males. Of the 128 federal employees with supervisory status in this sample, 63% (81) were male and 37% (47) were female. These demographic observations show a difference of about 10% favoring males for leadership positions.

Per ethnic demographics, 35% of FEVS participants (regardless of supervisory status) were minority, and 65% identified as non-minority. Just over 28% (i.e., 28.6) of 2016 FEVS participants with supervisory status were minority, 69.1% were non-minority, and 2.3% did not provide their ethnic demographic status. Specific to the sample for this study, 68.8% (88) participants were non-minority, as 28.9% (37) identified as a minority, and 2.3% (3) did not provide their ethnic demographic status.

Demographic statistics on the dependent variable, employee satisfaction, include a mean value of M = 3.37% for the 2016 FEVS population. Particular to the 128

employees in this sample, the mean employee satisfaction value was M = 3.79. Filtering by the independent variable, age group '40 and over' had higher employee satisfaction with a value of M = 3.89 than those 'Under 40' (M = 3.69). Employee satisfaction is higher in federal leaders '40 and Over' than those 'Under 40.' As the ratio comparison between the federal employees with supervisory status in this sample and those with the same criteria across the federal government align very closely, the random sample for this study is proportionate to the federal government. Figure 3 details these demographics.

Per demographic statistics on the dependent variable, intent to leave (see Table 4), 63.9% of the 2016 FEVS population acknowledged no intent to leave, compared to 17.4% who noted an intent to take a job with another federal agency, 3.4% intended to take a job outside of the federal government, and 9.9% intended to do something different (i.e., retire). Per 2016 FEVS participants with supervisory status, 70.3% acknowledged no intent to leave, while 14.3% noted an intent to take a job with another federal agency, 3.5% intended to take a job outside of the federal government, and 11.9% had other intentions. In particular to the 128 employees in this sample, 71.1% acknowledged no intent to leave, while 18% intended to take a job with another federal agency, 2.3% intended to take a job outside of the federal government, and 8.6% had other intentions on leaving.

Of the 80 participating agencies in the 2016 FEVS, 25 agencies are represented in the final sample. The agencies with the largest representation in this study's sample are noted as large (i.e., 10,000 to 74,999 employees) and very large (i.e., greater than 75,000 employees) agencies. See Table 3 for a presentation of these demographics.

# Figure 3



Demographic Data of Sampled Participants

# Table 4

Descriptive Statistics on Intent to Leave by FEVS Population, Leader, and Final Sample

Intent to leave	Final study sample	2016 FEVS supervisory status	2016 FEVS total population
No	71.10%	70.30%	63.90%
Yes, to take another Federal job	18%	14.30%	17.40%
Yes, to take job outside the Federal govt	2.30%	3.50%	3.40%
Other	8.60%	11.90%	9.90%

# Table 5

# Agencies Represented in Final Sample vs. 2016 FEVS

	<i>a</i> .	Final sample	2016 FEVS
Government agency	Sıze	(%)	(%)
Department of the Air Force	Very large	3.1	3.8
Department of Agriculture	Very large	7.8	5.6
Department of the Army	Very large	4.7	4.2
Department of Commerce	Large	4.7	2.4
DoD 4th Estate	Very large	6.3	3.3
Department of Justice	Very large	5.5	4
Department of Labor	Large	0.8	2.8
Department of Energy	Large	3.1	2
Federal Energy Regulatory Commission	Medium	1.6	0.3
Department of Education	Medium	0.8	0.7
General Services Administration	Large	2.3	1.7
Department of Health and Human Svcs	Large	9.4	9.9
Department of Homeland Security	Very large	13.3	11.5
Department of Housing and Urban Dev.	Medium	1.6	1.3
Department of the Interior	Large	6.3	5.7
National Archives and Records Admin.	Medium	2.3	0.5
Department of the Navy	Very large	2.3	3
Small Business Administration	Medium	0.8	0.3
Securities and Exchange Commission	Medium	1.6	0.8
Department of State	Large	3.9	1.3
Social Security Administration	Large	3.9	2.2
Department of Transportation	Large	2.3	3.6
Department of the Treasury	Very large	3.9	11.2
Department of Veterans Affairs	Very large	7.0	7.4
All other participating agencies	-	0.8	1.3
Total		100.0	90.8

# **RQ1:** Categorized Age of Supervisory Employee and Employee Satisfaction

The preliminary assumptions for RQ1 (i.e., 1- one dichotomous independent variable; 2- independent observations; 3- one continuous dependent variable; Laerd Statistics, 2015) were introduced, discussed, and noted in Chapter 3. The independent

variable, categorized age of supervisory employee, had two possible values (i.e., 'Under 40' and '40 and Over'); as such, it is a dichotomous variable. No FEVS participant can be a part of both age groups. The dependent variable, employee satisfaction, was calculated as an interval value from the mean of the 'My Satisfaction' section of the 2016 FEVS (i.e., Questions 63 through 71).

Per random sampling, one random sample of 128 was taken from the FEVS population. Participants were randomly assigned to the age groups using the 'random sample of cases' function in SPSS. The same sample was used for both RQs. There were 64 federal supervisory employees in the 'Under 40' and '40 and over' age groups respectively. Per the fourth assumption and the inspection of the boxplot in Figure 4, no data points were observed beyond 1.5 box lengths from the edge of the box. If present, the outliers would be represented on the boxplot illustration by circular dots or asterisks. As no circular dots or asterisks were found, there were no outliers in the data. In assessing the age groups for normal distribution or normality, satisfaction scores for each age group were normally distributed as assessed by Shapiro-Wilk's test with "Sig." values for 'Under 40' and '40 and over' age groups demonstrating p > .05 with values of .877 and .677 respectfully. Thus, the null hypothesis of normality of the Shapiro-Wilk test could not be rejected.

In confirming normal distribution, a histogram depicting an illustration of the data distribution for employee satisfaction by age group (see Figure 5). The general eyeball test of the histogram can be subjective given the size of the sample and the perspective of the researcher. Therefore, skewness and kurtosis were used to confirm the results of the

Shapiro-Wilk test of normality. Skewness refers to the symmetry of the data distribution (with respect to the central point). Kurtosis refers to the peakedness of the distribution curve and is defined by the frequency of the data distribution around the central point (Kim, 2013).

# Figure 4



Boxplot of Possible Outliers for RQ1

The distribution for employee satisfaction in the 'Under 40' group has moderate skewness to the left with a value of -.485. Data distribution in the '40 and over' group has slightly less moderate skewness to the left with a value of -.273. Therefore, there was some negative skewness in the sample and indicated higher employee satisfaction values in both groups based on the mean, median, and scale.

With a value of -.112 in the 'Under 40' age group, the kurtosis was slightly negative with a peak that's slightly less flat than a normal bell-shaped distribution. With a value of -.717 in the '40 and older' age group, the kurtosis is platykurtic as it contains negative excess kurtosis with a flatter distribution curve than the 'Under 40' age group. While the skewness and kurtosis are both negative, the assumption of normality is acceptable given the generally accepted thresholds for skewness and kurtosis (Kim, 2013). See Table 8 for a tabular depiction of skewness and kurtosis.

# Figure 5



Histogram of Employee Satisfaction by Age Group

The final assumption for the independent *t*-test was homogeneity of variances using Levene's test (Laerd Statistics, 2015). The population variance of both groups is unequal where p = .024, which is below the threshold of p < .05. Therefore, the key

assumption of homogeneity of variances was violated (See Table 6). As parametric tests like the independent samples t-test require the variance of each independent group to be equal (Kaur & Kumar, 2015), the Welch t-test does not as it is a modified t-test designed to accommodate unequal variances and produce valid results with minimum risk of making a Type I error (Laerd Statistics, 2015; Welch, 1947).

With the Welch t-test, I used SPSS to establish the difference in employee satisfaction scores between the two independent groups to discern whether the difference is statistically significant. While employee satisfaction was higher in employees '40 and over' (M = 3.89, SD = 0.68) than employees 'Under 40' (M = 3.69, SD = 0.88), there was no statistically significant difference, M = -.20, 95% CI [-.47, .08], t(118.405) = -1.441, p = .152 (see Tables 7 and 9). The mean difference in satisfaction between federal supervisory employees 'Under 40' and '40 and over' is *not* statistically significant (p > .05). Therefore, we cannot reject the null hypothesis as there is not sufficient evidence at the .05 level to conclude that there is a difference in satisfaction between the groups of federal supervisory employees.

# Table 6

Levene's Test for Equality of Variances

		F	Sig
		I	Dig.
Employee satisfaction	Equal variances	5.247	.024
	assumed		
	Equal variances		
	not assumed		

# Table 7

# Test of Normality: Shapiro-Wilk and Group Statistics

		Test of Normality: Shapiro-Wilk				Group stat	istics
							Std.
	Age group	Statistic	df	Sig.	N	Mean	deviation
Employee satisfaction	Under 40	.965	64	.068	64	3.6910	.87745
	40 and Over	.968	64	.101	64	3.8906	.67731

# Table 8

Skewness and Kurtosis Descriptives

	Age group	Descriptive	Statistic	Std. error
Employee satisfaction	Under 40	Skewness	485	.299
		Kurtosis	112	.590
	40 and Over	Skewness	273	.299
		Kurtosis	717	.590

### Table 9

## t-test for Equality of Means

				Sig. (2-	Mean	Std. error	95% con interva differ	nfidence l of the rence
		t	df	tailed)	difference	difference	Lower	Upper
Employee satisfaction	Equal variances assumed	-1.44	126	.152	19965	.13856	4739	.0746
	Equal variances not assumed	-1.44	118.405	.152	19965	.13856	4740	.07472

# **RQ2:** Categorized Age of Supervisory Employee and Intent to Leave

The preliminary assumptions for RQ2 (i.e., 1 - a multinomial dependent variable; 2 - dichotomous independent variable; 3 - independent observations; 4 - random sampling) (Laerd Statistics, 2017a) were introduced and discussed in Chapter 3. The independent variable, categorized age of supervisory employee, has only two possible values (i.e., 'Under 40' and '40 and over'); as such, it is a dichotomous variable. No FEVS participant can be a part of both age groups. The dependent variable, intent to leave, was assessed by FEVS Question 94 (See Appendix A). Being multinominal, the dependent variable for RQ2 has 4 categories and the categories do not have any natural order or rank.

Per the random sampling assumption, one random sample of 128 was taken from the FEVS population. Participants were randomly assigned to the age groups using the 'random sample of cases' function in SPSS. The sample sizes between the two groups of federal supervisory employees, all of whom confirmed their leave intent, were equal with 64 in each group. Percentages were used to give proportional value to the results. The counts/observed frequencies and percentages of FEVS values on 'intent to leave' from a randomized, purposive sample of 64 per age group are presented in Table 8. More supervisory employees in age group '40 and over' expressed no intention to leave (n = 49, 76.6% versus n = 43, 67.2%) than employees in age group 'Under 40'. However, more supervisory employees 'Under 40' expressed a positive intent to leave for another federal job (n = 13, 20.3% versus n = 10, 15.6%), for a job outside the federal govt (n = 2, 3.1% versus 0, 0%), and by other means (n = 6, 9.4% versus n = 5, 7.8%) than supervisory employees in age group '40 and over'.

The fifth assumption of sample size adequacy for RQ2 requires that the sample be large enough to guarantee the accuracy of the approximation and decrease asymptotically chi-squared distribution. This approximation determines whether the difference in the proportions between the two independent groups is statistically significant (Laerd Statistics, 2017a). The minimal measure for sufficient sample size notes all cells within the r x 2 table contain an expected count of more than 5 (Laerd Statistics, 2017a). The category for "Yes, to take a job outside the Federal govt" per each age group (see Table 10) and the note on Table 11 confirms that there are 2 cells with a count below 5. The sample size adequacy assumption was violated, and Fisher's exact test (r x 2) was used to assess the statistical significance in the differences between the two groups as established according to Cochran (1954).

# Table 10

# Crosstabulation of Age Group and Intent to Leave

	Age group		
Leave intent	Under 40	40 and over	
No	43	49	
INO	(67.2)	(76.6)	
Vag to take another Federal ich	13	10	
res, to take another rederal job	(20.3)	(15.6)	
Veg to take a job systemide the Federal court	2	0	
res, to take a job outside the rederal govi	(3.1)	(0)	
Other	6	5	
Oulei	(9.4)	(7.8)	

# Table 11

Chi-Square Tests

			Asymptotic significance	Exact sig.
	Value	df	(2-sided)	(2-sided)
Pearson chi-square	2.874 <sup>a</sup>	3	.412	.462
Likelihood ratio	3.648	3	.302	.422
Fisher-Freeman-Halton exact test	2.543			.512
Linear-by-linear association	.974 <sup>b</sup>	1	.324	.378
N of valid cases	128			

Note: (a) 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.00.

(b) The standardized statistic is -.987.

The two multinomial probability distributions between the two independent groups (i.e., categorized age group) were equal in the population, p = .512 (p > .05) (See

Table 11). Thus, the multinomial probability distributions were not statistically significantly different. There was insufficient evidence at the .05 level to conclude that the alternative hypothesis is true. Therefore, the null hypothesis is retained. As the difference was not statistically significant, no post hoc testing was required.

#### **Summary**

This chapter included the results and analysis of the statistical tests executed to assess the research questions that inform the problem. The research questions in this study asked if the independent variable, age of supervisory employees, had an effect on the dependent variables, employee satisfaction and intent to leave, respectfully. Violation of key assumptions for the previously agreed upon statistical tests (i.e., independent t-test and chi-square test of homogeneity) to assess RQ1 and RQ2 respectfully negated their use.

After the execution of the Welch t-test for RQ1 and Fisher's exact test (r x 2) for RQ2, there were no statistically significant differences found between the categorized age group of supervisory employees in terms of the dependent variables, employee satisfaction and intent to leave; thus, no significant effect. For RQ1, the satisfaction level of supervisory employees '40 and over' was higher than that of supervisory employees 'Under 40'. The Welch t-test found that the difference was not statistically significant; therefore, the null hypothesis is retained. For RQ2, more supervisory employees 'Under 40' expressed a positive intent to leave their current job within the next year than those '40 and over'. Fisher's exact test found the difference to be not statistically significant. The null hypothesis was retained. Chapter 5 begins with a recap of this research study's purpose and reasoning for being conducted. A detailed discussion and interpretation of these findings follow the introduction. This study's limitations, recommendations, implications for positive change, and concluding thoughts are also presented. Chapter 5: Discussion, Conclusions, and Recommendations

### Introduction

The purpose of this quantitative, causal-comparative, non-experimental study was to examine the differences in employee satisfaction and the intent to leave between older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. I explored the relationships between the independent variable (i.e., age of supervisory employees) and the dependent variables (i.e., employee satisfaction and intent to leave) using archival, secondary data from the 2016 FEVS. While researchers and scholars have contributed research on the variables in this study, I concentrated on the differences in employee perceptions by age group to address the identified gap of younger federal leaders and their possible contribution to the acknowledged leader deficit in the federal government. After testing each hypothesis, there were no statistically significant findings. As such, in this chapter I present an interpretation of the results that extend prior knowledge contributed to the discipline, discuss the limitations that arose during the completion of this study, recommendations for future research, and implications on positive social change followed by a concluding message for the study.

### **Interpretation of Findings**

The findings or conclusions of this research study remained in alignment with the literature presented in Chapter 2. Consistencies and inconsistencies with research presented in Chapter 2 were found and highlighted the difficulty in assessing the effect age has on the employee satisfaction and intent to leave of federal leaders who participate

in the FEVS. Previous research on this topic centered on how and the extent to which different perspectives between age groups occur in the workplace (Costanza & Finkelstein, 2015; D'Amato & Baruch, 2020); in certain federal government agencies concerning the variables of interest (Arrington & Dwyer, 2018; Lu & Gursoy, 2016); and on the leader deficit due to the retirement of employees in leadership positions (Dye & Lapter, 2013; Maltempo & Robinson, 2014; Ponomariov et al., 2021).

Younger federal leaders (i.e., Under 40) in this study reported lower employee satisfaction values on average while expressing a greater intent to leave than older federal leaders (i.e., 40 and over). Yet, no statistical significance was found given the randomly selected sample and size. With no statistical significance, this advances the previous assertion in Chapter 2 on how younger employees in positions of leadership contribute to the deficit of leaders in the federal government (Cummings-White & Diala, 2013; Hamidullah, 2017). From being underdeveloped, research in this area is evolving.

This study was also consistent with research by Buble (2019) noting that there are more leaders who identify with older age groups than leaders who identify with younger age groups. While a majority of federal leaders in both age groups expressed 'no intent to leave' (see Table 8), the 'Under 40' age group had the largest number of workers expressing an intent to leave. Having a large number of older federal workers who expressed no intent to leave also aligns with research by the Pew Research Center (Fry, 2019), who noted employees in older age groups are continuing to work and stay in the workforce. However, it is inconsistent with prior research linking the deficit of leaders to
the retirement wave of leaders in older age groups (Dye & Lapter, 2013; Maltempo & Robinson, 2014; Partnership for Public Service, 2019).

#### **Research Question 1**

What effect does the age of supervisory employees in the federal government have on employee satisfaction as captured by the 2016 FEVS?

Per the findings for RQ1, there were no statistically significant differences in employee satisfaction between the two age groups of the dichotomous variable, age category of respondent. Therefore, there was no significant statistical effect of age group on the satisfaction of federal employees in this study. However, employee satisfaction levels amongst both age groups of federal leaders were above average. Above-average employee satisfaction levels amongst both age groups aligned with research by Hur (2018) that validated the effects Herzberg's (1974) motivators and hygienes have on job satisfaction. In Hur's assessment, employee satisfaction levels for leaders in the public sector were higher (i.e., above average) as found in this study.

Leaders in the 'Under 40' age group had a broader range of employee satisfaction values. These values included some of the lowest satisfaction averages in comparison to leaders in the '40 and over' age group (See Figure 5). Per this sample, younger leaders had slightly lower employee satisfaction values than older leaders. However, statistical significance was not strong enough to warrant post hoc testing.

### **Research Question 2**

What effect does the age of supervisory employees in the federal government have on intent to leave as captured by the 2016 FEVS?

The findings for RQ2 also did not reveal a statistically significant difference in intent to leave between the two age groups of the dichotomous variable, age category of respondent. Therefore, there was no statistical effect of a federal leader's age group on their leave intent. However, in the sample, more federal leaders in the older age group (i.e., '40 and over') expressed no intent to leave than those in the younger age group (i.e., 'Under 40'). Yet, more in the younger age group (i.e., 'Under 40') expressed an intent to leave than those in the older age group. These findings were in tune with research by Ertas (2015), who assessed the turnover intention of employees in younger age groups in the face of a looming retirement season for older workers in the public sector (i.e., federal government). Ertas found that millennials are increasingly likely to voice their intention to leave their job before older generations. Yet, those 'Under 40' who expressed an intent to leave were looking for other federal employment versus a job outside of the government. Statistical significance was not strong enough to warrant post hoc tests to determine which value in the multinominal variable is most significant per the age groups.

#### Limitations of the Study

There are a few limitations that must be considered when generalizing this study. The limitation with the greatest impact on this study was the inability to examine and evaluate survey responses from age groups that aligned more with actual generational age groups. The data in the FEVS public data file only presented data that was categorized into two age groups for the survey participants (i.e., 'Under 40' and '40 and Over'). As a result, survey participants could not be grouped into age groups that aligned more closely with their generational grouping.

Another limitation of the study was the inability to use more recent FEVS data to address the research problem. The 2016 FEVS data were the most recent FEVS datafile with age group related data for public use, which includes academic use. The FEVS for 2017, 2018, 2019, and 2020 did not contain age or age group data on FEVS participants for analysis. This resulted in performing statistical analyses on survey participants whose perspectives may have changed since their participation in the 2016 FEVS.

Also, there were a limited number of justifications (or reasons) for an employee to rate their satisfaction and intent to leave within the 2016 FEVS. This limitation impacted the dependent variables. According to Herzberg's two-factor theory (1959), there are a collection of factors (i.e., hygienes and motivators) that may contribute to an employee's satisfaction and dissatisfaction in the workplace. For intents to leave, the "other" category on Question 94 can include many items not listed (i.e., retirement, new career, health, death, etc.). The inclusion of additional justifications (or reasons) has the potential to add depth and provide more meaningful results.

#### Recommendations

In this quantitative, non-experimental study, I aimed to examine the differences in employee satisfaction and the intent to leave between older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. While the results of this study did not find statistical significance between the variables of interests, leaders are still reportedly leaving the federal sector at rates that expose the need for public sector leadership (Ali, 2019; Buble, 2019; Partnership for Public Service, 2019; USGAO, 2014). As such, there are several recommendations for future research stemming from this research study's results and findings.

The first recommendation suggests that future researchers work directly through a federal agency to gain approved access to employee-sensitive data (i.e., age or age group). This would allow closer alignment with generation-based age groups for greater depth beyond what the FEVS public data file contains. In this manner, sampling from just one agency may yield different results (i.e., deeper differences between the two age groups). Additionally, because different organizations have different issues, sampling from and comparing two or three separate agencies may highlight statistical differences between the two age groups (by agency) that are not seen in the collective sample where multiple agencies are represented.

The second recommendation suggests that future researchers use a mixed methods research design that includes interviews or open-ended questions that capture missing age group data, satisfaction experiences, and leave intent reasons beyond what FEVS redacts and provides in its public data file. Also, using a mixed method or a qualitative research design allows future researchers to possibly identify federal leaders who acknowledge a positive intent to leave and follow up with them within 1, 2, or 5 years to confirm if those study participants acted upon their intent to leave and why. While Lee (2020) conducted a similar study over the career span of a federal employee involving employee

satisfaction and turnover intention, Lee's study did not focus on federal leaders nor the acknowledged leader deficit.

While more recent FEVS public data files still do not include age or age group related data, the population of FEVS participants in recent FEVS editions includes more participants who identify as leaders in younger age groups. Also, recent editions of the FEVS survey (i.e., 2019, 2020, etc.) have been updated to include additional questions aiming to capture employee perspectives on the pandemic of 2019 (i.e., COVID-19), political climate, and work/life balance that may affect a leader's perspective on employee satisfaction and ultimately their intent to leave (USOPM, 2020). Therefore, it is recommended that future researchers use more recent versions of FEVS, assuming its inclusion of age or age group related data, to discern the status of the reported decline in federal leaders based on recent significant experiences that may impact and influence their perceptions.

While G\* Power software was used to compute the minimum sample size needed to achieve power at a statistical level for this study (Faul et al., 2007), the small sample size possibly contributed to the violation of key assumptions described in Chapter 4 (Laerd Statistics, 2015). Therefore, it is recommended that future researchers explore an increase in the sample size.

Per the sample size, the power analysis for this study was done using the originally intended statistical tests (i.e., independent *t*-test and chi-square test of homogeneity). The tests ultimately used in this study were appropriately changed to the Welch t-test and Fisher's exact test. Conducting a new power analysis for the tests used

may suggest a higher sample size. In future research, should the assumptions for the originally intended statistical tests lead to using different but appropriate tests and statistical significance is not found, it is recommended that new power analyses be conducted for the statistical tests actually used. New analyses of the hypotheses may yield a statistically different result. For the sake of time and effort, additional power analyses, the resulting analyses on the hypotheses, and a basic resampling with repeated analysis were not conducted. Therefore, it is noted as a recommendation for deeper analysis in future research. Finally, a longitudinal study could be used to analyze employee satisfaction and leave intent by age group across multiple years so that trends may be identified and confirmed.

#### Implications

The purpose of this quantitative, causal-comparative, non-experimental study was to examine the differences in employee satisfaction and the intent to leave between older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. It was reported that the decrease in experienced and trained leadership necessary to navigate the complex seas of change amid complicated and everchanging climates and influences (Arrington & Dwyer, 2018) is a human capital issue (Ali, 2019; Christopher et al., 2018; Cummings-White & Diala, 2013). However, this research provided a blueprint for agency leaders and researchers alike to examine the reported problem. Research efforts herein have contributed to the body of knowledge. Future research stemming from this study, coupled with the continuously changing demographics of the federal workforce and their generational perceptions may further support federal succession planning, leader development, and leader retention as it addresses the perspectives of young federal leaders representing the youngest generations. An increase in how agencies promote relations from the perspectives of both older and younger leaders across multiple generations can improve employee relations and reduce turnover (Kim & Fernandez, 2017). Thus, this study can potentially improve employee engagement and foster a more inclusive and distinct federal workforce that mirrors the customers it serves, the American people.

Research that statistically supports the identified problem of the leader deficit as seen from the perspective of both older and younger federal leaders using the FEVS was extremely limited (Resh et al., 2021). This study used a reliable and consistent research tool (i.e., FEVS) and its data to inform what some describe as a "quiet crisis" of human capital (e.g., leader deficit in the federal government; Ali, 2019; Christopher et al., 2018). It serves as an entry point to expanding the number of published research offerings addressing the stated research problem. This study provided a deeper understanding of the impact of the leader deficit in a multi-generational workforce. This study also creates a segue to future strategies that address how agencies and leaders adapt to change introduced by younger generations.

This research and its continuation of it may potentially aid government agencies in the exploration and discernment of how the perceptions of federal leaders across multiple age groups inform and explain challenges and barriers related to the retention, succession, and development of its leaders (Cummings-White & Diala, 2013; Hamidullah, 2017). It can affect federal budgets in terms of which efforts are funded, what skills and tasks are contracted out (Lee et al., 2021), the delivery of technical and public services, management and operations, public policy, service to the public, and organizational performance. This shift in practice may result as agencies focus more on fulfilling their mission versus resolving their "human capital crisis" with its current and future leaders.

#### Conclusions

The purpose of this quantitative, causal-comparative, non-experimental study was to examine the differences in employee satisfaction and the intent to leave between older federal leaders (i.e., age 40 and older) and younger federal leaders (i.e., under age 40) to discern how the age of federal leaders influences their satisfaction and desire to leave federal service. The theories that directed my study were generation theory (Strauss & Howe, 1991) and twp-factor theory (Herzberg, 1959). In Chapter 2, I discussed the aforementioned theories, how they related to the research problem, leadership, the federal workforce, and the variables and statistical instrument of interest. In Chapter 3, I discussed the details of this research's methodology and the approach to data analysis.

Although prior research has shown there to be a deficit of federal leaders mainly due to the separation of older leaders from their federal jobs (Dye & Lapter, 2013; Maltempo & Robinson, 2014; Partnership for Public Service, 2019), this study expanded prior research on employee satisfaction and turnover intention between both older and younger leaders within the federal government. Before this study, the contribution young federal leaders made to the acknowledged leader deficit was unknown and statistically

unsupported. The results of this study found no significance in the difference between older and younger age groups per employee satisfaction and intent to leave. This study highlighted the challenges of using FEVS public data for age group related research due to constraints and limitations surrounding survey participant privacy and anonymity. In dittoing research by Resh et al. (2021), this study also encourages, supports, and can strengthen the relationship between OPM FEVS and researchers on grooming the FEVS instrument for effectual, practical government administration. Though no statistically significant differences were found, both younger and older federal leaders majorly desired to not leave their federal position within the next year (only in this sample). However, there were more younger leaders who desired to leave than older leaders. These conclusions may be different in another random sample or in later years of the FEVS. Not knowing the contributions of young leaders to the leader deficit neglects the unique perspectives they bring and ignores their growing presence and offerings. Ultimately, agencies and organizations must discern their leadership outlook and devise a strategy to combat dim leadership forecasts of losses in human capital and experience as such can impact recruiting, developing, and retaining young leaders.

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## Appendix A: Questions Examined from 2016 FEVS Instrument

94. Are you considering leaving your organization within the next year, and if so, why?
□ No
Yes, to take another job within the Federal Government
Yes, to take another job outside the Federal Government
Yes, other

# Appendix B: Sample FEVS Invitation Email

Ī	
s	ample Invitation Email ubject: 2016 Federal Employee Viewpoint Survey
2	016 Federal Employee Viewpoint Survey: Employees Influencing Change
ן a y	he Federal Employee Viewpoint Survey (FEVS) is a safe and confidential way for you to voice your opinions bout critical aspects of your job and working environment. Please take this important opportunity to help guide our agency's focus in the coming years.
C	lick here to access your survey:
χ	*****
I	f the link does not take you directly to the survey, copy and paste the following into a browser window:
2	
F V İ	lease DO NOT forward this e-mail, as it contains your personalized link to the survey. Answering the questions rill take about 25 minutes, and you may use official time. While participation is voluntary, your feedback is mportant. Your individual responses are confidential.
F	teply to this message if you have any questions or difficulties accessing the survey, or call our Survey Support Center toll free at: 1-855-OPM-FEVS (1-855-676-3387).
1	hank you for taking the time to complete the survey.
s	ample Reminder Email
I	nspire Change through your participation in the Federal Employee Viewpoint Survey!
٦ s	Vhat matters most to you as a Federal employee? If you had the opportunity to speak directly with your agency's enior leaders, what would you say?
I V	f you have not yet completed the 2016 FEVS, take this opportunity to fill out the survey. This is your chance to oice your opinions and let your leadership know which issues are most critical to you.
C	Click here to access your survey
2	XXX
I	f the link does not take you directly to the survey, copy and paste the following into a browser window:
2	XXX
P	lease DO NOT forward this e-mail, as it contains your personalized link to the survey.
P S	lease reply to this message if you have any questions or difficulties accessing the survey, or call our Survey upport Center toll free at: 1-855-OPM-FEVS (1-855-676-3387).