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Walden University
2024


#### Abstract

The Association Between Generational Cohorts and Job Satisfaction, Motivation, and Turnover Intention in U.S. Federal Employees

\section*{by}

April Davis


MSA, Trinity Washington University, 2004
BS, Trinity Washington University, 2002

Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy Industrial/Organizational Psychology

Walden University
February 2024


#### Abstract

Currently there are five generations (traditionalists, baby boomers, Generation X, millennials or Generation Y, and Generation Z) in the workplace. As baby boomers make their transition to retirement, public and private sector employers are struggling to fill the void of talent. The pandemic has intensified the challenges for attracting and retaining talent. This quantitative study focused on generational diversity in the federal government, with a goal to improve attracting, hiring, and retaining a multigenerational workforce for the $21^{\text {st }}$ Century. The research problem explored in this study examined if there are true differences and/or similarities between generational cohorts' motivation, job satisfaction, and turnover intention using data from the Federal Employee Viewpoint Survey (FEVS). The purpose of this study was to explore the perceptions of baby boomers, Generation X , and millennials working together in the federal government. The theoretical framework for this study included generational cohort theory, public service motivation (PSM) theory, Herzberg's motivation theory, and job characteristics theory. The data analysis plan included a chi-square, used to examine the associations between generational cohorts and turnover intention while controlling for job satisfaction and motivation. A one-way ANOVA tested the correlation between generational cohort and job satisfaction and motivation. This study consisted of a random sample of over 17,000 federal employees from the 2015 FEVS. The results of the study supported the theory that more than generational cohort attribute to the turnover intention of Federal employees. The lack of a multigenerational workforce can have positive social change implications by impeding the federal government's ability to serve the American people.


# The Association Between Generational Cohorts and Job Satisfaction, and Turnover 

Intention in U.S. Federal Employees by April Davis

MSA, Trinity Washington University, 2004
BS, Trinity Washington University, 2002

Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy Industrial/Organizational Psychology

Walden University
February 2024

## Dedication

I dedicate my completed work to my family and my friends who supported me on this journey. My greatest teachers, my grandparents, Nelson Johnson, Sr. and Winifred Johnson, thanks for your infinite wisdom that now comes from heaven. To my mother, Sharron Davis, to whom I learned hard work, strength, courage, commitment, and dedication, I appreciate your support and many examples of hard work and accomplishments beyond what was thought to be possible. To my daughters, Akesia, Antoria, and Antonia, I dedicate my work to you and know that you can achieve anything you work hard to accomplish. To my granddaughters, Alaya, Alayna, and Aleya, you three are truly my inspiration, and I want you to always follow your dreams. To my sister, Anitra, thank you for all your support, your listening ear, and always being there for me and my family. Your intelligence is beyond measure. To my nieces, Jada, and Amira, you are brilliant; know your gifts and always aspire higher. Finally, my sister, Antonia in heaven, I dedicate my completed research to you in your memory. I know you have always been here in spirit as you were in life supporting me on this journey. I appreciate all my family and other friends who supported me as well. Thank you so much for your love and support on this journey.

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## Chapter 1: Introduction to the Study

The federal government is competing with the private sector to fill current and future jobs with diverse talent (Accenture, 2015; Bennet, 2020; U.S. Office of Personnel Management [OPM], 2019c). Leaders in federal agencies and others responsible for talent acquisition (e.g., executives, hiring managers, human resources, industrial/organizational psychologists) must determine how to attract, select, retain, and train a multigenerational workforce for the $21^{\text {st }}$ Century (Bennet, 2020; Neal, 2019). Prior studies have predicted that generational changes will impact attracting, hiring, and retaining talent in the public service (Perry \& Buckwalter, 2010; Svara, 2010).

There are five generations in the workplace, and each brings its values and beliefs and a different lens to the workplace (Meister \& Willyerd, 2010). The U.S. Government Accountability Office (GAO; 2012) reported that baby boomers' rate of retirement would increase from 7,600 per day on average in 2011 to 11,000 per day in 2029. The mass exodus of baby boomers may result in the loss of knowledge (also known as brain drain), experience, challenges in leadership continuity, and skills losses (Deloitte, 2016;

Goodman et al., 2015). Employers are looking to millennials to fill the void created by baby boomers retiring based on numbers alone. However, there are concerns with the high quit rates among new hires or younger employees in the federal government (Cho \& Lewis, 2012; Deloitte, 2022; Society for Human Resource Management [SHRM], 2022). According to the Bureau of Labor Statistics projected data, millennials will grow from 2019 to 2029 and will increase by 4.5 million, representing the largest gain for a single age group (as cited in Torpey, 2020). In 2018, 29\% of baby boomers were working or
looking for work (Pew Research Center, 2019). During the COVID pandemic, the retirements of baby boomers increased (Pew Research Center, 2019). As of 2020, millennials surpassed baby boomers as the nation's largest living adult generation, according to Pew Research Center tabulations of population estimates from the U.S. Census Bureau (Pew Research Center, 2019). In 2019, millennials numbered 72.1 million, and baby boomers numbered 71.6 million. Generation $X$ numbered 65.2 million and is projected to pass the boomers in population by 2028 (Fry, 2020). With these projected and continuous demographic changes, companies will need to create new strategies to deal with motivating, communicating with, developing, and engaging the members of each generation (Meister \& Willyerd, 2010).

In the federal government, employee engagement and job satisfaction are measured agency by agency using the Federal Employment Viewpoint Survey (FEVS; OPM, 2019a). The OPM publishes the FEVS results annually (OPM, 2019a). To select the most relevant FEVS dataset for this study I explored multiple datasets. The 2019 published FEVS (OPM, 2019a) reported that the federal workforce was comprised 1\% traditionalist (born 1945 or earlier), 35\% baby boomers (born 1946-1964), 45\% Generation X (born 1965 - 1980), 20\% Generation Y (born 1981 to 1996), and 1\% Generation Z (born 1997 or later). OPM (2019a) stated that the sum of percentages might be affected due to rounding. In 2019, OPM added Generation Z to the FEVS, which created a cutoff year for Generation Y (Fratričová \& Kirchmayer, 2018). The 2015 FEVS dataset was comprised $1 \%$ traditionalist (born 1945 or earlier), $49 \%$ baby boomers (born 1946 - 1964), 39\% Generation X (born 1965 - 1980), and 11\% Generation Y (born 1981
or later). The data files for the 2015 data set were a better fit for my analyses than the 2019 dataset based on how the generational data are represented. Thus, this study included three generational cohorts (i.e., baby boomers, Generation X, and Generation Y) due to the small number of traditionalist federal employees. Over the next 15 years, a large number of retiring government workers will affect all levels of government (Bright, 2013). Employee turnover in the federal government is a chief concern in light of the high retirement rates among retirement-eligible federal employees (Deloitte, 2022, SHRM, 2022). The lack of a multigenerational workforce can have social change implications by impeding the federal government's ability to serve the American people.

Chapter 1 includes the study background; the problem statement; the purpose of the study; the research questions and the hypotheses; the theoretical framework for the study; the nature of the study; and the definitions of the independent variables, dependent variables, and any terms used in the study. This chapter concludes with the assumptions, scope, and delimitations; limitations; significance of the study; and a summary.

## Background

There have been a plethora of research in the past 5 years on generational diversity in the workplace (Costanza \& Finkelstein, 2015; Cucina et al., 2018; Fratričová \& Kirchmayer, 2018; Fry, 2015; Hoole \& Bonnema, 2015; Jones et al., 2018; Kelly et al., 2016; Markee, 2020; Mazur, 2020). Therefore, conducting a comprehensive literature review was important for substantiating the need for research or a gap in the research literature. In most generational diversity studies, researchers survey members of each generation about the relative importance they attach to work values, searching for
differences between generations (Grant, 2013). Generational work values are associated with the perceived values of each generational cohort. Work values can be defined as "generalized beliefs about the relative desirability of various aspects of work, and workrelated outcomes" (Lyons et al., 2010, p. 971). In context, each generational cohort's values are influenced by formative events (cultural, social, historical, political) that shape generational values and impact organizational values (Mann, 2022). Strauss and Howe (1991) found a correlation between formative historical, political, and social events that shape generational values. Research has solidified that the constructs of motivation, job satisfaction, and turnover are linked to work values of generational cohorts (Lyons et al., 2010). Work values include both intrinsic and extrinsic work values. Intrinsic work values are internal rewards experienced from work, such as personal fulfillment, achievement, and enjoyment (Bamberg, 2020; Cennamo \& Garner, 2008; Crain, 2015; Lyons et al., 2010). Extrinsic work values are associated with external rewards like salary, job security, promotion recognition, and feedback, among other factors (Bamberg, 2020; Crain, 2015; Lyons et al., 2010). Organizational values are associated with workplace attitudes. Individual work attitudes are driven mainly by personal values (Cresnar \& Jevsnak, 2019). Work values or attitudes are sometimes misconstrued as stereotypes. The difference between work values and stereotypes is that work values are rooted in concrete attributes whereas stereotypes are perceptual in nature and represent biases not grounded in empirical literature.

Generational differences represent two types of diversity (Ilgen et al., 2005, Moran et al., 2014), that impact workplace outcomes, including surface level diversity
(demographic characteristic - age) and deep-level diversity (differences in values and attitudes; Urick et al., 2017). Work values influence job satisfaction by representing what employees seek from their jobs and which parts of their job is important (MoniarouPapaconstantinou \& Traintafyllou, 2015). Work values and work motivation are correlated. Like other studies, work values are associated with the constructs (job satisfaction, motivation, and turnover intention) and served as proxies for understanding generational differences for this study.

Cucina et al. (2018) conducted a two-part study on generational differences based on workplace attitudes (e.g., job satisfaction and employee engagement). In both studies, $98 \%$ of the variance in workplace attitudes was found within groups, as opposed to between groups (Cucina et al., 2018). Along those same lines, Jones et al. (2018) conducted a review of the empirical literature on generational differences noting the lack of a theoretical framework to explain generational differences as well as a lack of empirical evidence supporting generational stereotypes. In addition, Macky et al. (2008) researched the context concerning generational differences at work and the core theory underlining generational cohorts. Evidence of changes in personality profiles across generations and differences in attitudes towards work and careers emerged from this study. In this study, the effect sizes were small and inconsistent in comparison to popular stereotypes regarding generational differences. Macky et al. focused on age (maturity), lifecycle, and career stage differences as indicators of generational differences rather than the year of birth as it related to a generational cohort. Generational cohort theory (Strauss \& Howe, 1991) prescribes that generational differences are contributed to age or birth
year and shared historical experiences. However, past studies have found that more than age alone impacts generational differences in the workplace (Costanza \& Finkelstein, 2015).

In addition to generational cohort theory, other theoretical approaches were used to explore generational differences, including public service motivation (PSM), Herzberg's two-factor theory of motivation $(1966,1974)$, and job characteristics theory (Hackman \& Oldman, 1975). Past researchers have studied the presence of PSM as an indicator for joining the public service. Such motivational factors may include the values, attributes, and expectations toward work in light of generational shifts (Lyons \& Kuron, 2014; Lyons et al., 2012).

Herzberg's motivation-hygiene theory $(1966,1974)$ was appropriate for application in this study to explore generational cohort motivation and job satisfaction in the workplace. Herzberg's two-factor theory is based on the causes of motivation and demotivation in organizations (Herzberg, 1966, 1974). Herzberg's two-factor theory encompass the factors that cause job satisfaction and dissatisfaction. Herzberg referred to satisfiers as motivators and dissatisfiers as hygiene factors. Some factors cause job satisfaction and some cause dissatisfaction. Job satisfaction and dissatisfaction are not synonymous, and there are no cause-and-effect relationships between the two factors (Herzberg, 2003). Herzberg's two-factor theory and generational cohort theory share some similarities. Like generational cohort theory, Herzberg's two-factor theory of motivation $(1966,1974)$ implies that all individuals are motivated by similar general or basic needs. Generational cohort theory (Strauss \& Howe, 1991) is based on belonging to
a generational cohort; Herzberg's two-factor theory applies to all individuals regardless of age. Both theories propose that each generational cohort will have similarities based on age or their basic physiological needs (hygiene factors) and psychological needs (motivator factors). How the basic needs of each generational cohort are met in the public sector will influence work motivation and job satisfaction.

Job characteristics theory (Hackman \& Oldman, 1975) can provide another lens to view a generational cohort's satisfaction with their jobs as it relates to social support, autonomy, feedback, task significance, and task interdependence (Humphrey et al., 2007). The FEVS allows federal employees to share their work experiences and their role as public servants, which aligns with job characteristics theory (Hackman \& Oldman, 1975). For instance, research on special education teachers has shown that teachers with higher levels of autonomy were most likely to report satisfaction and lower rates of attrition (Warner-Griffin et al., 2018). Other research has confirmed a positive correlation regarding social support, autonomy, skill variety, task significance, task identity and feedback, and job satisfaction (Mat-Ali et al., 2013). The FEVS (OPM, 2015b, 2019a) and GAO (2016) key drivers align with the subsets of job characteristics theory (e.g., job characteristics and job resources) that can increase job satisfaction and decrease attrition rates (Cunningham, 2019).

Multiple studies have tested the validity and reliability of the FEVS's measurement of turnover intention (Alexander, 2015; Byrne et al., 2017; Calecas, 2019; Kim, S.Y. \& Fernandez, 2015; Soria, 2019; Vanderschuere, 2015). Job satisfaction and different forms of turnover intention are the first and third most used dependent variables,
appearing in multiple articles, respectively (Fernandez et al., 2015). The turnover item in the FEVS is as follows: "Are you considering leaving your organization within the next year?" Respondents may select one of the four responses: "No," "Yes, to take another job within the federal government," "Yes, to take a job outside the federal government," and "Yes, other." Calecas (2019) used secondary data from the 2018 FEVS and "a multiple linear regression resulting in a p-value less than .05 indicating a statistically significant relationship between the independent variables of employee engagement and job satisfaction and the dependent variable to turnover intention in the federal government" (Calecas, 2019, p. 77). In this study, an adjusted $R$ square of 106 showed that $10.6 \%$ of the results were accounted for in the goodness of fit to the regression line (Calecas, 2019, p. 77). The priori power analysis for this study used a medium size effect of .15 , an alpha of .05 , and a power of .90 , which showed an effective sample size of 116 participants (Calecas, 2019).

The U.S. GAO (2016) provided testimony before the Subcommittee on Regulatory Affairs and Federal Management, Committee on Homeland Security and Governmental Affairs, and U.S. Senate on the Federal Workforce to report on trends in employee engagement and actions that may be taken by OPM and other agencies to improve employee engagement governmentwide. GAO analyzed data from the Federal Employee Viewpoint Survey (FEVS). GAO's testimony identified lessons learned for engaging millennials and other age groups. The GAO report provided six key drivers of engagement for millennials and other age groups: (a) constructive performance conversations, (b) career development and training, (c) work-life balance, (d) inclusive
work environment, (e) employee involvement, and (f) communication from management. In addition to these six key drivers of engagement, GAO reported other factors, such as effective management, turnover rates, and equal employment opportunity complaints, as contributors to employment engagement.

The literature covers a range of different findings and questions for futureoriented research on generational diversity. The prior research served as the foundation for this study on generational diversity in the federal government. This study can be valuable in the generalization of generational diversity in both the private sector and the public sector.

## Problem Statement

Prior research has indicated that the overall attrition government-wide is a serious issue (Ertas, 2015). Other challenges include age diversity, turnover, retirement eligibility, and a smaller than average millennial workforce in the federal government (Goldenkoff, 2014). Prior research projected that $31 \%$ of the career permanent or employees who completed a 1-year probational period and 3 years of continued credible service on board as of September 2014 would be eligible to retire in 2019 (GAO, 2016; Katz, 2018). Moreover, the Government Business Council (2012) predicted that the federal government would need to hire 200,000 employees to fill positions due to a retiring workforce. The number of federal employees who retired from 2015 to June 2019 was 298,361 (OPM, 2019c). The number of new hires from 2015 to June 2019 averaged 212,874 a year (OPM, 2019c). Millennials made up $51 \%$ of new hires during this time period (OPM, 2019c). However, hiring millennials to fill positions left vacant by baby
boomers is an inadequate talent acquisition strategy. Talent acquisition requires planning based on agency strategic goals and applicant flow data, providing evidence to support human capital management effective strategies for sourcing talent. More specifically, Locke et al. (2022) explored a multigenerational public health government workforce and highlighted the challenges hiring and retaining millennial talent in comparison with other generational cohorts. Talent acquisition and succession planning strategies are core to hiring a diverse workforce.

Due to such challenges, the federal government in times of critical talent shortages has allowed for the rehiring of retired employees without a deduction in these employees' retirement benefits. In 2019, the U.S. Department of Agriculture (USDA) conducted a major reconstruction of two program areas requiring employees to relocate from Washington, D.C. to Kansas City (Wagner, 2019). Many of the employees in the impacted program areas did not accept the relocation offer and rather decided to quit (Wagner, 2019). The USDA offered retired employees (baby boomers) return rights without penalties to retirement compensation and benefits to fill the void and maintain continuity of functions (Wagner, 2019). The returning baby boomers were provided flexibility including telework, which was not an option offered to current employees. In light of COVID-19, additional retired federal workers were rehired to fill the void in knowledge and bandwidth to deal with the pandemic. If current employees of the agency had been allowed to telework, the need to bring back retired employees may have been prevented. The agency could have alleviated concerns related to the severe negative impact the loss of institutional knowledge would have on policymaking and the
agricultural industry (Wagner, 2019). The disvaluing of talent based on generational cohort perceptually can cause intergenerational conflict and impede efforts to retain millennials and generation Z. In other words, the management decision to relocate and require employees to relocate may have been informed by FEVS data and prevented the loss of talent.

The federal government is seeking to attract new talent for specialized work, including cybersecurity, STEM, and other newly emerging occupational fields (Boyd, 2020; Bur, 2020; Goldstein, 2019). With the emergence of artificial intelligence, machine learning, robotics, and other technologies, the federal government will need to attract talent skilled in these areas for the work needs of the future (McKinsey \& Company, 2017). Typically, federal agencies attract candidates committed to and motivated by public service (Perry et al., 2010). Research has shown that individuals with higher public service motivation values or individuals motivated by public service or intrinsic rewards are more likely to work for the government (Perry et al., 2010).

Federal employees annually participate in the FEVS to measure employee motivation, job satisfaction, employee engagement, and other work attributes (OPM, 2018a). Federal agencies use the results of the FEVS to improve human capital efforts in their agencies and to address human capital issues. Since 2014, the FEVS has not shown a significant increase in employee engagement scores for federal employees. Prior decreases in employee engagement scores from $67 \%$ in 2011 to $63 \%$ in 2014 were due in part to sequestration and budgetary issues (OPM, 2018a). The federal government furlough in 2019, which was the longest federal furlough in history, may have had a
similar impact on FEVS scores in 2019 and 2020 (OPM, 2019a). Past FEVS results have identified differences by generational cohort (Kirkman, 2017). The differences in FEVS scores related to Employee Engagement Index (EEI) by generational cohort can be analyzed to identify generational cohort differences (OPM, 2019a).

Research is required to provide insight related to current federal employees' work values and future employees' work values. Research on work values and generational cohort differences in the federal government is limited. Thus, research that expands what is currently known about generational phenomena is needed (Weber \& Urick, 2017). Research that completely supports the premise of differences between generational cohorts as a result of age, a historical period, and cohort has not been fully supported by the research literature due to variations in prior studies (Costanza \& Finkelstein, 2015; Jones et al., 2018). The sole OPM report on millennials in federal service was published in October 2014. Hence, the federal government needs research in this area to close the research gap and to be effective in recruiting and retaining a diverse workforce to serve the American people. Generational diversity including diverse ages, genders, and generational experiences in the workplace can have positive implications on organizational stability, sustainability, effectiveness, recruitment, talent acquisition, and retention (Deloitte, 2016). Conversely, the lack of a generationally diverse talent pool can impede the federal government's abilities to provide the American people with required services, slow technological (i.e., artificial intelligence, machine learning) growth, and fully implement a multigenerational workforce for the $21^{\text {st }}$ Century.

## Purpose of the Study

The purpose of this causal comparative quantitative research study was to explore the perceptions of three generations working together in the federal government. This study brought into focus the factors associated with generational diversity in the federal government. This study compared generational cohort differences based on employee job satisfaction, motivation, and turnover intention. The purpose of this study in terms of social change was to identify generational cohort differences, similarities, and values in the federal government to improve the coexistence of a multigenerational workforce to serve the American people.

## Research Questions and Hypotheses

In this research, I analyzed the values of the multiple generations in the federal workplace. The overarching research questions (RQs) for this study were as follows:

RQ1: To what extent do generational cohorts differ in turnover intention while controlling for job satisfaction and motivation?
$H_{0} 1$ : There is no significant difference in generational cohorts after controlling for job satisfaction and motivation.
$H_{1} 1$ : There is a significant difference in generational cohorts after controlling for job satisfaction and motivation.

RQ2: Are there differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS?
$H_{0} 2$ : There are no statistical differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS.
$H_{1}$ 2: There are statistical differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS.

RQ3: Are there differences across generational cohorts' perceptions of motivation as measured by the FEVS?
$H_{0} 3$ : There are no statistical differences across generational cohorts' perceptions of motivation as measured by the FEVS.
$H_{1} 3$ : There are statistical differences across generational cohorts' perceptions of motivation as measured by the FEVS.

## Theoretical Framework of the Study

A major challenge studying generational differences is explaining how factors like age (attributed to life stage and maturity), period (a specific historical time period), and cohort (experiencies shared by groups) individually or mutually are explained by generational cohort theory (Costanza \& Finkelstein, 2015). Generational cohort theory posits that a generation is a social construction in which individuals born during a similar time period experience, and are influenced by, historic and social contexts in such a way that these experiences differentiate one generational cohort from another (Jurkiewicz \& Brown, 1998; Sessa et al., 2007). However, this theory alone does not explain the other factors associated with generational differences. There is well-established literature dealing with individual differences in the workplace that purports multiple variables (e.g., organizational commitment, job satisfaction, motivation, self-discipline, life goals, values, and personality traits or characteristics) impact generational differences in the workplace (Costanza \& Finkelstein, 2015). To assume that grouping people into arbitrary
cohorts based on supposedly impactful events they may have experienced commonly will somehow make them much more homogenous on these variables is not only unsupported by the research but also runs counter to what is known about individual differences (Sackett, 2002).

There is a lack of empirical and theoretical research on generational differences (Twenge et al., 2010). The research conducted supports the existence of generational cohorts; however, the attributes of generational cohorts vary based on different studies. In this study, I tested the basic premise that generational stereotypes are the result of belonging to a specific generational cohort. Generational cohort theory was used to help understand multigenerational perceptions in the federal workplace. The experiences of each generational cohort in the workplace have been explained in previous studies using specific factors, such as job design, compensation, work values, work ethics, job satisfaction, organizational satisfaction, employee engagement, workplace attitudes, and work motivation (Cucina et al., 2018; Ertas, 2015; Hernaus \& Pološki Vokic, 2014; Kelly et al., 2016). Generational cohort theory has been criticized due to the generic explanation that generational members are influenced by historical events, people, economy, or culture of a time period in the same way (Jones et al., 2018). However, there is a need for research that would further generational cohort theory and establish if individuals belonging to the same generational cohort do impact work values, work ethic, and other key attributes assigned to each generational cohort (Jones et al., 2018). This study tested whether generational stereotypes are supported by generational cohort theory. Also, I explored if other factors besides age contribute to generational differences,
such as job satisfaction, work motivation, turnover intention, and empowerment. As stated previously, most federal employees are driven by PSM. The existence of various factors associated with a multigenerational workforce may also be explained by using different theoretical frameworks, such as PSM (Perry \& Wise, 1990), job characteristics theory (Hackman \& Oldman, 1975), and Herzberg's $(1966,1974)$ two-factor theory of motivation. PSM theory, along with Herzberg's two-factor theory, were included in this study to help grasp a better picture of generational differences, similarities, and values. Research has shown that individuals with higher PSM values are more likely to work for the government (Perry et al., 2010). PSM has also been associated with higher organizational commitment and lower turnover in public service (Crewson, 1997). Furthermore, PSM is related to higher job satisfaction and lower turnover intentions for federal government employees (Naff \& Crum, 1999). Another theory connected with higher job satisfaction and lower turnover intentions is the job characteristics theory (Hackman \& Oldman, 1975). Research on job characteristics theory purports the importance of individual differences as well as other factors (e.g., social support, autonomy, skill variety, task significance, task identity and feedback, and job satisfaction) that may help explain generational differences, job satisfaction, and turnover (Mat-Ali et al., 2013). Job characteristics theory also goes beyond the general premise that the generational cohort assignment explains how each generational cohort exists in the workplace. Job characteristics theory adds to the depth of multiple generations' perceptions and values in the workplace. Chapter 2 provides a more robust overview of the theories outlined for this study.

## Nature of the Study

A causal-comparative quantitative study of generational diversity in the workplace was the basis for this research. I compared each generational cohort to explain existing differences among them on job satisfaction, motivation, and turnover intention (see White \& Sabarwal, 2014). The independent variable for this study was generational cohorts and the dependent variables were employee job satisfaction, motivation, and turnover intention.

Data collected by the OPM as part of the FEVS for 2015 were used for this study. Secondary raw data from the FEVS were analyzed to identify any differences between each generational cohort regarding employee job satisfaction, motivation, and turnover intention. These data are publicly available to access on OPM's website (OPM, 2015c). Permission to use the FEVS data was not required because the FEVS 2015 survey dataset (see Appendix A) is considered "open data" and is available to the public on OPM's website.

The FEVS allows federal government employees to share their opinions about what matters most to them and allows them to let their leadership know how they feel about their jobs, their supervisors, and their agencies (OPM, 2017). In 2015, a total of 421,748 federal employees responded to the survey for a response rate of $49.7 \%$ (OPM, 2015b). G*Power was used to calculate the appropriate sample size for this study. This analysis is included in Chapter 3. The 98 -item survey measured federal employees’ perceptions of eight broad topic areas (personal work experiences, work unit, agency, supervisor, leadership, satisfaction, work/life programs, and demographics) and 16
demographic items (OPM, 2015a). The FEVS is a valid and reliable questionnaire that has been extensively used since 2002 to produce empirical research (Baucus \& Cochran, 2014; Ertas, 2015; Fernandez \& Moldogaziev, 2015; Kim \& Fernandez, 2017; Leider et al., 2016; Markee, 2020).

Survey items in the FEVS were leveraged to operationalize the variables of this study. Items from the FEVS were used to identify motivation, job satisfaction, and turnover intention. Cronbach alpha was used to confirm the reliability of survey items for this study. Descriptive statistics provided an overview of demographical content. Separate regression models were conducted for each of the three generational cohorts to understand the predictive nature of demographic variables, job satisfaction, and motivation on turnover intention. Prior studies have used a multivariable analysis of variance (MANOVA) to determine whether there were significant variances in the levels of work engagement and meaningful work across different generational cohorts (Hoole \& Bonnema, 2015). Similarities and differences between the data collected from the FEVS helped paint the picture of each generational cohort's work values related to job satisfaction, motivation, and turnover intention. No prior research has explored the similarities and differences of each generational cohort in the federal government.

## Definitions

For this study, the following terms were defined operationally:
Age: Refers to the variation associated with aging attributable to life stage and maturity (Costanza \& Finkelstein, 2015). The FEVS asks employees to categorize their age as 25 and under, 26 to 29,30 to 39,40 to 49,50 to 59 , and 60 or older (Soria, 2019).

Baby boomers: Individuals born between 1946 and 1964 (Pew Research Center, 2015; OPM 2019b).

Employee engagement: Conditions that would be expected to lead to engaged employees, for example, effective leadership, work that provides meaning to employees, and the opportunity for employees to learn/grow on the job (OPM, 2019b).

Employee Engagement Index (EEI): A measure of the conditions conducive to engagement. The index consists of 15 items grouped into three subindices: leaders lead, supervisors, and intrinsic work experience (OPM, 2019b).

Engagement: An employee's sense of purpose that is evident in their display of dedication, persistence, and effort in their work or overall attachment to their organization and its mission (OPM, 2015, 2019b).

The Federal Employee Viewpoint Survey (FEVS): A tool to measure employee perceptions of whether and to what extent conditions characteristic of successful organizations exist in their agencies (OPM, 2016). The FEVS provides valuable insight into the challenges agency leaders face in ensuring the federal government has an effective civilian workforce and how well they are responding to those challenges (OPM, 2016). The FEVS is key to assessing agencies' progress toward the administration's goal of strengthening the engagement levels of federal employees.

Generations: Individuals who are from a similar period in history and who have formed, through shared events and experiences, a common awareness of that time period (Gilleard, 2004; Mannheim, 1952).

Generational cohort: Members of an identifiable group (i.e., traditionalists, baby boomers, Generation X, millennials, and Generation Z) who share a specific span of time and have experienced similar environment and social experiences (i.e., historical, political, and economic events and situations; Hannay \& Fretwell, 2011; Kupperschmidt, 2000).

Generation cohort theory: Focuses on generational cohorts "who share historical or social life experiences, the effects of which are relatively stable over the course of their lives" (Strauss \& Howe, 1991. p. 8). This theory is used in the social sciences to help understand people's attitudes, values, motivations, and differences.

Generation X (Gen Xers): Individuals born between 1965 and 1980 (OPM, 2019b).

Herzberg's two-factor theory: Focus on the causes of motivation and demotivation in organizations (Herzberg 1966, 1974). Herzberg's two-factor theory looks at the factors that cause job satisfaction and dissatisfaction. Herzberg referred to satisfiers as motivators and dissatisfiers as hygiene factors. Herzberg's theory includes physiological needs (hygiene factors) and psychological needs (motivator factors).

Hygiene factor: According to Herzberg et al. (1959), the factors that contribute to hygiene are supervision, interpersonal relations, status, working conditions, job security, and salary. If these factors are present in a work environment, they will prevent employee dissatisfaction and poor job performance yet only maintain a certain level of satisfaction; if these factors are lacking, they will contribute to job dissatisfaction (Herzberg et al., 1959).

Job characteristics theory: Includes job characteristics, such as autonomy, task variety, feedback, task identity, and task significance combined in a multiplicative way to influence critical psychological states (i.e., experienced meaningfulness, experienced responsibility, knowledge of results) and performance (Hackman \& Oldman, 1975).

Job satisfaction: The level of contentment employees feels toward their jobs and is enhanced or influenced by different factors, including (a) availability of resources, (b) teamwork, (c) supervisors following up, and (d) personal attitudes (Abu-Shamaa et al., 2015).

Millennials: Individuals born between 1981 and 1996 (OPM, 2019b).
Motivation: Behavior in the workplace determined by the level of input that employees will put in the organization to commit to suitable performance (Singh, 2016).

Motivation factor: According to Herzberg et al. (1959), factors that contribute to motivation are achievement, growth, recognition, advancement, and the work itself. These factors, when coupled with hygiene factors, motivate the employee to high levels of job satisfaction. It is this factor that pushes employees to higher levels of performance rather than any one factor alone. (Herzberg et al., 1959).

Public service motivation (PSM): "A calling" for individuals who respond to prosocial values and who desire to solve social problems, serve others, and improve public welfare (Holzer, 1999).

Turnover intentions: A measure of whether an employee intends to leave an organization. Turnover intention has been found to be highly correlated with actual turnover (Cohen et al., 2016; Lee et al., 2018).

Workplace satisfaction: Encompass employees' multiple perceptions of work including job setting, impact on perceptions of work setting, and the work environment (Hopkins, 1983, Soria, 2019).

## Assumptions

When using secondary data, there are assumptions made as they pertain to the quality of the data collected and the credibility of the original study. Assumptions in research are defined elements that are believed to be true but cannot be proven (Cheng, 2014 as cited in Bennett, 2018). I assumed that the federal employees' responses to the FEVS were truthful and honest. I also assumed there was sufficient representation from each generational cohort included in this study. Moreover, I assumed the participants provided their generational and personal perspectives on working in the federal government at their agencies and in their current positions.

In addition, I assumed the FEVS was designed to meet survey requirements. It was assumed that the survey items in the FEVS were validated. It was also assumed that federal employees' confidentiality and privacy were protected. I assumed that the data collected for the EEI and the Global Satisfaction Index would provide insights for my study on each generational cohort's experiences working in the federal government. I also assumed that the FEVS survey items I selected for my study would provide insight into job satisfaction, motivation, and turnover intention of federal employees by generational cohort. Furthermore, I assumed that generational cohort theory, Herzberg's two factor theory, job characteristics theory, and PSM would be appropriate to examine
similarities and differences between generational cohorts for job satisfaction, motivation, and turnover intention.

## Scope and Delimitations

The scope of this study was the use of secondary data to explain generational cohorts' perceptions of job satisfaction, motivation, and turnover intentions in the federal government. The FEVS includes data collected governmentwide from employees in each generational cohort. The FEVS provides data and information that identify key areas in which federal agencies can improve employee engagement and federal employees’ overall satisfaction in the workplace. One strength of the FEVS is its data are representative and generalizable (Fernandez et al., 2015). A quantitative analysis of data collected via the FEVS by OPM was leveraged for this study. The survey items selected from the FEVS included the EEI, the Global Satisfaction Index, and a turnover intention survey item. The FEVS uses a 5-point Likert scale with the following responses: strongly disagree/disagree/neither agree nor disagree/agree/strongly agree (Sizer, 2018). The data were assigned a number ( $5=$ strongly agree, $4=$ agree, etc. $)$ to code the data to identify generational cohorts' perceptions of job satisfaction, motivation, and turnover inventions. Demographical nominal and ordinal data were used from the FEVS for the independent variable and dependent variables for this study.

Delimitations of the secondary data provided delimitation for this study. The FEVS identified generational cohorts by birth year and included data from permanent full-time and part-time federal employees. The smaller number of federal employees in the traditionalists (1\%) and Generation $\mathrm{Z}(1 \%)$ generational cohorts represented in the
federal government and FEVS were used as exclusion criteria for this study. Survey participants' anonymity was protected by the FEVS. The FEVS does not include sensitive security information, which is compliant with regulations for conducting studies with human subjects and did not present issues for this study. All data used for this study were available to the public.

The future of the federal government is contingent on a diverse multigenerational workforce with emerging skills to serve the American people. Understanding the values of a multigenerational workforce in the federal government is important to acquire and retain a workforce for the 21st Century.

## Limitations

This study is limited to employees in the federal government. The generational cohorts included in this study were based on the number of federal employees in each generational cohort. The 2015 published FEVS (OPM, 2015a) reported that the federal workforce comprised 1\% traditionalist (born 1945 or earlier), 49\% baby boomers (born 1946 - 1964), 39\% Generation X (born 1965 - 1980), and 11\% Generation Y (born 1981 to 1996). OPM (2015a) stated that the sum of percentages might be affected due to rounding. I excluded the traditionalists generational cohort because this generational cohort has a smaller representation in the federal government than other generational cohorts. This decision was based on the smaller number of traditionalists (1\%) in the federal government.

The design of this study and the most appropriate approach of obtaining data for this study was by using data from the FEVS. The data collected by the FEVS determined
the quantitative research design for this study. The FEVS does not include qualitative data; therefore, the most appropriate design of this study was quantitative. Based on the RQs and the targeted population, the data from the 2019 FEVS was appropriate for this study. This study may not be completely applicable to the private sector.

## Significance

In the workplace, many organizations have at least four generations working alongside one another (Lester et al., 2012). According to Lester et al. (2012), "Employees from different generations may have varying expectations of what they want (or 'value') from the workplace, both from an intrinsic and extrinsic standpoint, and therefore may approach work, and how they prefer to be motivated, differently" (p. 342). Generational conflict in the workplace is suspected to be due in part to the work values and attitudes of employees from each generation that represents generational misconceptions. These misconceptions held by each generation can serve as a basis for preconceived expectations of a generational group as it pertains to their work values and work ethics. Researchers and authors on the topic have pointed out that some attitudes toward older workers are negative stereotypes, often based on inaccurate information and arising from resentment (Lancaster \& Stillman, 2005). For example, the concept of the "graying of the workforce" can create several challenges, both real and perceived, such as the older generation being resistant to change or that they are not as productive as younger workers (Mello, 2006, p. 58). The Peter principle aligns with this type of thinking. People are promoted to their highest level of nonproductivity (Peter, 1969).

Contrary to this view, older workers provide significant knowledge to an organization and can be as productive, if not more so, than younger workers (Mello, 2006). Older workers may perceive younger workers' need for immediate gratification and wanting to excel at a rapid pace negatively without any evidence. The assistance of skilled professionals is needed to manage a multigenerational workforce. Experts, such as industrial/organizational psychologists, human resources directors, and others, can assist employers in this endeavor. The research was essential for experts to understand the generational cohorts' work values and how to leverage these work values for a healthy and productive workplace.

According to Costanza and Finkelstein (2015), "There is an increasingly prevalent perception among managers that the presence of four so-called generations in today's workplace, and the differences among these generations, are creating unprecedented challenges in the nature of work and workplace relations" (p. 4). However, there is a lack of empirical research on the topic of generational diversity in the workplace that focuses on each generational cohort's actual perception of the workplace based on their work values and how each generation perceives the work values of other generations in the federal government. Specifically, there is a lack of research literature on generational cohorts that fully explain generational stereotypes (Jones et al., 2018). The research can help inform strategies for federal agencies to leverage the work values of each generational cohort and not focus on perceptual work values when developing human resources policy and making human capital decisions.

This study contributes to filling the gap of research literature on generational differences research based on generational cohort theory. I tested whether generational stereotypes are supported by generational cohort theory. There is limited research on generational diversity in the federal government. Thus, this research supports professional practice by leading the study on generational work values, specifically, three generational cohorts (i.e., baby boomers, Generation X, and millennials), work values in the workplace. This study provides a view of generational diversity in the federal government from a scientific perspective rather than relying on anecdotal information. This research can inform federal policies on generational diversity in the workplace and to help develop strategies for attracting, hiring, and retaining a workforce of the $21^{\text {st }}$ Century as well as increasing diversity as outlined in the newly issued Diversity, Equity, Inclusion, and Accessibility Executive Order from the White House tasking the federal government to enhance diversity across the government (White House, 2021). This research study provides new insight into the experience of multiple generations in the workplace and addressed generational stereotypes that are commonly used to make distinctions between the generational cohorts.

Attracting, hiring, and retaining a diverse workforce to serve the American people can have social change implications. The services provided by the federal government meet societal needs across the lifespan. Multigenerational diversity in the federal government is needed to meet diverse societal needs.

## Summary

This study consists of five chapters. Chapter 1 provided the background of the study; problem statement; the purpose of the study; RQs and hypotheses; theoretical framework; nature of the study; definition of terms; assumptions, scope, delimitations, and limitations of the study; and the significance of the study. Chapter 2 includes a review of empirical literature that provides a critical analysis of the FEVS and the validity of its design, how the FEVS is used by federal agencies to improve employee engagement and satisfaction, the FEVS data collected by generational cohorts, independent and dependent variables for this study, demographical information for federal employees, and the theoretical framework for this study. Chapter 3 includes the research design and methodology for the research variables through an analysis of the RQs. Chapter 4 provides a report on generational cohort satisfaction, motivation, and turnover intentions in the federal government through the analysis of data collected from the FEVS aligned with the RQs and their hypotheses. Chapter 5 summarizes the findings of the study and provides conclusions and recommendations. The dissertation concludes with the overall findings and a discussion of the implications and limitations of the study, including future research recommendations.

## Chapter 2: Literature Review

## Introduction

The purpose of this chapter is to explore existing literature on generational cohort differences as it relates to federal employees' job satisfaction, motivation, and turnover intentions when measured by the FEVS. Each year since 2002, the FEVS has been administered as a climate survey to look at federal employees' work motivation and job satisfaction and has been used in numerous empirical studies to investigate the satisfaction of over 2.1 million federal employees. In this quantitative study, I focused on the aforementioned constructs and the perceptions of multiple generations working together in the federal government. Research on work values and generational cohort differences in the federal government is limited. The sole OPM report on millennials in the federal services was published in 2014. However, prior research has indicated that overall attrition governmentwide is a serious issue (Ertas, 2015) and is compounded by other challenges like age, diversity, turnover, retirement eligibility, and smaller than the average millennial workforce in the federal government (Goldenkoff, 2014). Baby boomers eligible for retirement delayed exiting the workplace due in part to the economic downfall (Goldenkoff, 2014). Many employers' succession planning strategies included replacing exiting baby boomers with millennials. The U.S. millennial population outnumbers the population size of baby boomers (Fry, 2020). However, employers using this strategy have not prevailed in replacing retired workers with millennials. The COVID pandemic in 2020 impeded retirement plans again for baby boomers, also impacting filling jobs left vacant by baby boomers. Furthermore, the federal government
has not been successful in attracting, hiring, and retaining millennials. In comparison with the labor market, only $6 \%$ of millennials make up the federal government workforce (OPM, 2021). In the private sector, approximately $35 \%$ of millennials make up the workforce (Pew Research Center, 2019). Currently, millennials make up $31 \%$ of the federal workforce (OPM, 2022). The recent turnover tsunami experienced in the workplace according to human capital experts has led to a mass exodus of baby boomers as well as other generational groups (Maurer, 2021). As a result of attrition, COVID, natural disasters like wildland fires, border issues, and other national security risks, the federal government is working to hire thousands of new federal employees (Lobosco \& Luhby, 2021). Thus, this study can help inform federal agencies strategies to address talent needs to recruit and retain federal employees.

This chapter is divided into multiple sections, including a literature search strategy, theoretical overview, and literature review on the independent (i.e., generational cohorts) and dependent (i.e., job satisfaction, motivation, and turnover intention) variables and the importance of these variables in addressing the RQs for this study.

## Literature Search Strategy

The literature search strategy for collecting credible information included scholarly, peer-reviewed journals, articles, periodicals, publications, governmental sources, and dissertations. The psychology database search included PsycARTICLES, PsychINFO, and ProQuest Psychology Dissertations and Theses. The key search terms used were generational, cohorts, generational differences, values, diversity, workplace, millennials, Gen X, baby boomers, traditionalists, Gen Z, multigenerational, motivation,
turnover intention, job satisfaction, employee satisfaction, empowerment, and Federal Employee Viewpoint Survey. The keywords search resulted in over 1,754 peer-reviewed articles and journals. The literature including the FEVS or federal government research was smaller than the overall research on multigenerational differences in the workplace. For this study, I focused mainly on the literature, including FEVS data, to narrow down the research. However, the FEVS research was limited to some of the variables for my study. Other research that closely aligned to my study with similar variables was also included in my literature review. This approach helped to pare down and align the research literature for this study.

The database search range used for this study was between the years 2015 to 2023. This search identified seminal theoretical works such as Mannheim's (1928/1972) theories of generations and motivation. The search revealed limited empirical evidence on a multigenerational workforce in the federal government, which helped support the identification of a gap in the literature.

## Theoretical Foundation

Studies on generational differences in the workplace have commonly used generational cohort theory to explain differences between generational cohorts based on characteristics prescribed to age or birth year (Costanza \& Finkelstein, 2015; Jones et al., 2018). Generational cohort theory (Strauss \& Howe, 1991) indicates that generational differences are contributed to by age or birth year and shared historical experiences. In concert with generational cohort theory, other theories -- Herzberg two-factor theory of motivation (1966, 1974), job characteristics theory (Hackman \& Oldman, 1975), and

PSM theory (Perry \& Wise, 1990) were also examined to provide a strong theoretical foundation for this study. Each theory was used to explain aspects of generational cohorts' experiences with job satisfaction, motivation, and turnover intention as measured by the FEVS.

The origins of generational cohort theory are based on Mannheim's (1952) seminal work, The Problem with Generations, which has contributed to the origins of the theory of generations (Pilcher, 1994). Mannheim referred to generations as agents of social change given their social and historical awareness in a specific period of time (as cited in Joshi et al., 2011). However, Inglehart (1977) has been credited with developing generational cohort theory. Strauss and Howe (1991) expanded the work of Inglehart (1977) by merging the generations approach (Mannheim, Jose Ortega y Gasset, and others) and age location perspective on history (Strauss \& Howe, 1991). Strauss and Howe (1991) stated that a generation is a social construct in which individuals born during a similar time period experience, and are influenced by, historic and social contexts in which these experiences differentiate one generational cohort from another. Historical events shape personalities based on age group and phase of life, which is retained with age (Strauss \& Howe, 1991). The correlation between age and events is important to generational cohort theory (Strauss \& Howe, 1991).

According to Strauss and Howe (1991), "Generations come in cycles. Just as history produces generations, so too do generations produce history" (p. 35). As such, each generation has distinctive characteristics. This distinction amongst generational cohorts represents their feelings and values attributed to them personally, their culture,
the nation, and the future (Strauss \& Howe, 1997). There are currently five generations in the workplace: traditionalists, baby boomers, Generation X, Generation Y/millennials, and Generation Z. The FEVS (OPM, 2015b) reported that the federal workforce is comprised of $1 \%$ traditionalist (born 1945 or earlier), 49\% baby boomers (born 1946 1964), 39\% Generation X (born 1965 - 1980), and 11\% Generation Y (born 1981 to 1996). The FEVS includes a significant amount of data for baby boomers, Generation X, and millennials. This study included three generational cohorts (i.e., baby boomers, Generation X , and millennials) for the purest sample.

Each generational cohort is described by their characteristics and values, which are unchanged through the life span (Arsenault, 2004; Lubinski et al., 1996; Meglino \& Ravlin, 1998). Perceptual differences between generational values have been attributed to technology, communication, work climate, leadership and feedback, work life balance, team orientation, and involvement/empowerment (Crumpacker \& Crumpacker, 2007; Fogg, 2009; Kupperschmidt, 2000; Lancaster \& Stillman, 2005; Martin, 2005; Myers \& Sadaghiani, 2010; Steele \& Gordon, 2006; Twenge \& Campbell, 2008). The FEVS is a work climate survey providing insights into federal employee's values related to similar constructs, for example, technology, leadership preferences, work life balance, motivation or empowerment, and other attributes important to work.

As a new generational shift emerges with Generation Z entering the workforce, understanding motivational factors that serve to motivate millennials and Generation Z to join the federal government will need to be examined. Such motivational factors may include the values, attributes, and expectations toward work in light of generational shifts
(Lyons, S. \& Kuron, 2014; Lyons, S.T. et al., 2012; Kuron, 2012). Herzberg's motivation-hygiene theory $(1966,1974)$ was appropriate for application in this study to explore generational cohort motivation and job satisfaction in the workplace. In this study, I explored key constructs that influence generational differences within the federal government. Herzberg's motivation-hygiene theory helped to distinguish motivators and dissatisfiers based on generational cohorts. Herzberg refers to satisfiers as motivators and dissatisfiers as hygiene factors. In other words, some factors cause job satisfaction, and some cause dissatisfaction. The factors that Herzberg et al. (1959) identified that contribute to hygiene are supervision, interpersonal relations, status, working conditions, job security, and salary. The presence of these factors eliminates employee dissatisfaction and poor job performance maintaining certain levels of satisfaction; the lack of these factors contributes to job dissatisfaction (Herzberg et al., 1959; Magny, 2012). Herzberg et al. (1959) stated that feelings of job satisfaction are attributed to employer recognition. Saeed et al. (2014) found that employees satisfied with their job and the support they receive from their job had lower turnover intentions. Therefore, employee satisfaction is impacted by improving key drivers like communication from management, which can motivate employees and decrease turnover intention.

Numerous studies have explored the motivation of public sector employees. Through these studies, it was found that federal employee motivation can be explained through PSM. PSM posits that most individuals enter public service based on internal motivators not external motivators like pay or personal benefit (Perry \& Wise, 1990; Rainey, 1982; Vandenabeele, 2007). Perry and Wise (1990) defined PSM as "an
individual's predisposition to respond to motives ground primarily or uniquely in public institutions and organizations" (p. 368). Since Perry and Wise's seminal work on PSM, more than 323 publications on PSM have emerged (Ritz et al., 2016). PSM research has also become more multidisciplinary, international, and multisectored (Ritz et al., 2016). Thus, there is a need to fully integrate PSM into human resources management practices of public organizations to interpret the impact of PSM on employees.

Prior studies of PSM have proven that it is grounded in social science (Perry \& Vandenabeele, 2015). Perry and Wise's (1990) work on PSM theories identified a typology of motives including rational, norm-based, and affective motives. Federal employees demonstrate rational PSM by fulfilling interests not associated with economic gain that represents feelings of importance or their identification with public policy objectives. Norm-based motivations include altruistic behaviors attributed to service aspiring feelings of loyalty and duty determined by the need to advance policies of social equity. Affective motives were described by Perry (1996) as being more emotional than norm-based motives, concerning public over self.

Perry (1996) developed a PSM scale of measurement with four dimensions, including attraction to public policymaking, commitment to the public interest, selfsacrifice, and compassion, to measure PSM. Many researchers have used Perry's constructs including several government-wide surveys (Merit Systems Protection Borad [MSPB] 1996, 2010). Additional work by Perry (1996) identified five sets of antecedents: parental socialization, religious socialization, professional identification, political ideology, and individual demographic characteristics.

Qualitative research has been used to identify conceptual frameworks for theory to inform quantitative large-scale studies and meta-analysis. Prior quantitative studies have found positive relationships between PSM and job satisfaction, performance, organizational commitment, and support for the government reinvention efforts (Naff \& Crum, 1999). Ritz et al. (2016) asserted, "The most frequently studied variables of PSM based on 400 studies were identified as the demographical characteristics of gender (64 occurrences), age (56 occurrences), and education (45 occurrences)" (p. 420). In addition, they found that "other variables included job grade/management level (23 occurrences), job tenure (20 occurrences), place of work (16 occurrences), employee-leader relations (15 occurrences), minority status (15 occurrences), and organizational tenure (15 occurrences)" (Ritz et al., 2016, p. 420). Study aggregate results have suggested that PSM tends to be positively related to job satisfaction, choosing a public sector job, individual and organizational performance, organization and job commitment, person-organization fit, and organization citizenship behavior (Ritz et al., 2016). Ritz et al. indicated a negative relationship between PSM and turnover intention. However, the researchers also confirmed a relationship between PSM and positive outcomes such as job satisfaction, public sector job choice, individual and organizational performance, organization and job commitment, and low turnover (Ritz et al., 2016). Research on PSM has been criticized in the past due to methodological shortcomings like stronger dependence on crosssectional data and methodology permitting causal inference; a large number of inconsistent findings in the most frequently centralized relationship raises questions about model specification (Ritz et al., 2016). Irwan (2018) found that motivation did not
significantly impact job satisfaction, but motivation was shown to positively impact employee performance (Le Grand \& Roberts, 2018). However, there has been research that focused on causal relationships - 19 studies used longitudinal designs (e.g., Anderson \& Pallesen, 2008; Le Grand, 2010; Seider, 2012; Taylor \& Westover, 2011); and 12 studies employed randomized experimental designs with a control or comparison group. There were 32 studies that used a qualitative design that help shape and explain phenomena associated with PSM.

In addition, PSM theory was the basis for establishing the hypothesis that military veteran federal employees have a higher level of employee engagement due to their predisposition to serve (Perry et al., 2010). Perry et al. (2010) used 2015 FEVS data to measure veterans' employee engagement and turnover intentions. The results demonstrated a link between PSM theory and employee engagement theory, which could lead to future research to identify moderating variables of military veterans and age (Miller, 2018).

Holt (2018) found that PSM plays a role in job sector selection early on in one's career; therefore, PSM is commonly attributed to government employees' motivation. Most research on PSM has been conducted with state and local government employees rather than federal government employees; however, the results of these studies are still applicable to federal employee motivation. Similarities between the motivation in the federal government in comparison to state and local government employees or nonprofit employees have been attributed to employees valuing more intrinsic rewards than extrinsic rewards (Holt, 2018; OPM, 2019a). The results of the 2019 FEVS showed that
federal employees, regardless of generational cohort, valued more intrinsic rewards than extrinsic rewards (OPM, 2019a, 2019b). Thus, PSM can be used to explain how federal employees are motivated as well as to demonstrate the similarities between federal employees' values based on the generational cohort. Findings of studies have recommended that public organizations should assess job applicants' levels of PSM and consider these in selection decisions (Ritz et al., 2016). In this study, I used PSM to understand the motivation of federal employees in different generational cohorts. My research adds to the quantitative research on PSM and literature on federal employees, which is currently limited.

Federal employees are also motivated by the work they perform or their satisfaction with their job. The FEVS captures federal employees' satisfaction with their work as well as other work factors such as work attitudes and behavior. Job characteristics theory can be used to explain the effects of tasks performed by employees on their work attitudes and behavior (Singh, A. et al., 2016). Job characteristics theory (Hackman \& Oldman, 1975) focuses on an employee's perception about the extent to which their jobs offer them social support, autonomy, feedback, task significance, and task interdependence (Humphrey et al., 2007). JCT includes five core characteristics of work - skill variety, task identity, task significance, autonomy, and feedback from a job (Singh, A. et al., 2016). The descriptions of each of the five core characteristics of work are described below.

1. Skill variety - work that requires more skills to complete is more meaningful than work that is more rote and repetitive in nature. (Singh, A. et al., 2016).
2. Task identity - performing work from the beginning to the end is more meaningful than performing individual subsets of work. (Singh, A. et al., 2016).
3. Task significance - the impact of one's work on others internal or external to an organization. (Singh, A. et al., 2016).
4. Autonomy - the latitude in one's job that provides substantial freedom, interdependence, and discretion in determining the steps needed to complete the work (Singh, A. et al., 2016).
5. Feedback from job - the extent the job provides information about job performance (Singh, A. et al., 2016).

These five characteristics effect three psychological states of work - experienced meaningfulness of the work, experienced responsibility for outcomes of work, and knowledge of the actual results of the work activities (Singh, A. et al., 2016). The five characteristics are embedded in the three critical psychological states. The first psychological state experienced meaningfulness encompasses employees' views of work as inherited meaningful or that the work is aligned with employee's own value systems (Singh, A. et al., 2016). Experienced meaningfulness of work is shaped by skill variety, task identity, and tasks significance. The second psychological state, experienced responsibility for outcomes of work, entails the personal accountability and responsibility an employee attributes to performing their work. The amount of autonomy a job provides is credited to experienced responsibility. The third psychological state, knowledge of results, include the confidence an employee has as it pertains to how well the employee is
performing their work. Knowledge of results entails the characteristic feedback on work (Singh, A. et al., 2016). JCT research recognizes three individual conditions that are impacted by these five characteristics.

According to the JCT model positive personal and work outcomes are the result of the existence of these three psychological states - (a) internal motivation at work; (b) satisfaction with personal growth and development at work and their job in general; and (c) effectively perform at work (Singh, A. et al., 2016). Positive outcomes can result in high internal work motivation (intrinsic motivation), high growth satisfaction (employee satisfaction), high general job satisfaction (job satisfaction), and high work effectiveness (Singh, A. et al., 2016). The minimum presence or lack thereof the three psychological states decrease the emergence of high outcomes.

The five job characteristics can be combined to form the motivating potential score (MPS) for a job, The MPS is calculated using a formula representing the five core dimensions, as follows: MPS $=($ skill variety + task identity + task significance $) / 3 \mathrm{x}$ autonomy x feedback. The MPS has been used as an index to measure the impact of a job on an employee's attitudes and behaviors (Singh, A.et al., 2016). Jobs with high MPS, have been predicted by the job characteristics model (JCM) to positively affect motivation, performance, and job satisfaction and reduce negative outcomes, such as absenteeism and turnover (Singh, A. et al., 2016). In accordance with the JCM, the perception of core job characteristics impacts work outcomes by affecting employees' psychological reactions to their jobs. These critical psychological reactions or states are correlated with five specific work outcomes: (1) general job satisfaction; (2) perceived
job performance; (3) internal work motivation; (4) satisfaction with growth; and (5) thoughts of quitting (Singh, A. et al., 2016).

The JCT also includes three individual conditions, i.e., growth need strength (GNS), context satisfaction, and knowledge and skill. The three conditions serve as moderators for the core job characteristics on employees' responses to the MPS. Employees with high scores in all three conditions score positively on jobs with high motivating potential. GNS is the strength of an employee's need for personnel accomplishment, learning, and development at work. Employees high with GNS value opportunities for accomplishment and self-direction by jobs high on the 5 core characteristics. Employees low on GNS place less value on opportunities for high-MPS jobs and therefore respond less positively to these types of jobs. Context satisfactions comprise of satisfaction employees express with major elements of the work context (e.g., pay, job security, coworkers, and managers). When employees are happy with the context of their work, they are less likely to be distracted by contextual issues or problems.

Knowledge and skill refer to the extent to which employees have the skills and competencies necessary to complete a job on the five core characteristics. When present employees tend to complete jobs high in motivating potential and to reap personalpsychological rewards provided by those jobs. If these skills and competencies are absent, then the employee will experience frustration and unhappiness on jobs high in motivating potential. These jobs are rich in psychological rewards for effective performance. Employees who are unable to perform the work are unable to obtain these
rewards. All four theories provide a lens to examine three generational cohorts (i.e., baby boomers, Generation X, and Generation Y's), job satisfaction, motivation, empowerment, and turnover intention in the federal government by using the FEVS data.

## FEVS

The FEVS has been used extensively to measure various constructs associated with federal employees. The statistical weights to account for demographic factors, such as gender, age, and managerial status, are examples of constructs used by OPM to generate more representative survey results (Fernandez et al., 2015). Over 40 research articles from 2006 to 2013 used data from the FEVS and numerous newer studies and articles have been published on the use of FEVS data to explore federal employee's experiences from 2014 to the present (Alteri, 2020; Baucus \& Cochran, 2014; Callahan, 2015; Choi \& Rainey, 2014; Dimichele, 2020; Ertas, 2015; Fernandez et al., 2015; Goldenkoff, 2015; Grissom et al., 2016; Hughes, 2020; Lee et al., 2018; Meyer-Sahling et al., 2019; Notgrass, 2015; Oberfield, 2014a, 2014b; Resh et al., 2021; Somers, 2018; Wynen \& Op de Becck, 2014). This research is needed to compare generational cohorts’ job satisfaction, motivation, and empowerment influence on turnover intention.

## Independent Variable: Generational Cohorts

Generational diversity focuses on differences between generations in the workplace. A generation is a group of people defined by age boundaries - those who were born during a certain era (Notter, 2009). They share similar experiences growing up and their values and attitudes, particularly about work-related topics, tend to be similar, based on their shared experiences during their formative years (Notter, 2009). These
generational differences seem to present differences in work values between workers (and managers) who are from one generation and those from a different generation (Landy \& Conte, 2016). A generation (sometimes called a "cohort") is defined by group members who share birth years and significant life events (Kupperschmidt, 2000). This definition implies that the accident of the birth years places individuals in the same "life experience" pool, and, as a result, is likely to influence the values of the members (Landy \& Conte, 2016).

Generational cohort theory, developed by Inglehart (1977) and later made popular by Strauss and Howe (1991), posits that a generation is a social construction in which individuals born during a similar time period experience, and are influenced by, historic and social contexts in such a way that these experiences differentiate one generational cohort from another (Jurkiewicz \& Brown, 1998; Sessa et al., 2007). Furthermore, previous researchers note that generational differences in attitudes about work are particularly prevalent (Cennamo \& Gardner, 2008; Jurkiewicz \& Brown, 1998). In theory, these generational values are an actual construct of each generational cohort. More attention is given to the differences between generations than the actual similarities that may exist between the generational cohorts. This type of attention or focus presents animosity in the workplace between the generational groups and can cause conflict. For example, the attention given to attracting Millennials to the workplace may impact the morale of other generational cohorts. As a result, members of other generational cohorts may feel they are not valued in the workplace and may hold some animosity toward Millennials or Generation Z entering the workplace.

In most studies, researchers survey members of each generation about the relative importance they attach to particular values, searching for differences between generations (Grant, 2013). Twenge (2010) realized that this approach was fundamentally flawed. Instead of always focusing on the differences in the generational cohort, the similarities of the generations in the workplace should be valued and leveraged as well. The research in this respect provides a partial view of the generations. Deal (2007) found in her independent research that "all generations have similar values; they just express them differently" (p. 22). The application of generational cohort theory will test the assumption that commonalities across generational cohorts do exist as it relates to workplace work values. The research exploring similarities between generational cohorts is limited. Mencl and Lester (2014) explored both the similarities and differences between generational cohorts as it pertains to the presence of various workplace characteristics. The researchers hypothesized the similarities of workplace factors between generations would be more prevalent and that the importance of workplace factors would have consistently similar or different moderating effects among generations on the relationships between employee perceptions of the factors at their organizations and employee attitudes (Mencl \& Lester, 2014). The study found between generations similarities on 7 of the 10 work values examined. The study also revealed similarities and differences between the generational cohorts for factors as moderators, finding more differences than similarities for these analyses. Dick (2019) focused on similarities between Generation X, Y, and Z work values as the basis of employee work motivation. This study emphasized the need for employers to focus on individual differences and not solely on generational differences
based on stereotypes. The results of the study proved that there are more similarities than differences (Dick, 2019).

Although similarities amongst generational cohorts exist, generational differences are also prevalent. Intergenerational conflict can occur between generations as a result of misunderstandings, misperceptions, or disagreements (Urick et al., 2017). Generational conflict in the workplace is suspected to be due in part to the work values and attitudes of workers from each generation that represents generational misconceptions. Hillman (2014) found that there was a significant relationship between generational cohorts and conflict created by generational work values. The views are held by each generation and serve as a basis for preconceived expectations of a particular generational group as it pertains to their values and work ethic. Researchers and authors on the topic have pointed out, some attitudes toward older workers are negative stereotypes, often based on inaccurate information and arising from resentment (Lancaster \& Stillman, 2005). For example, the concept of the "graying of the workforce" can create a number of challenges, both real and perceived, such as, the older generation are resistant to change or they are not as productive as younger workers (Mello, 2006, p. 58). Contrary to this view, older workers provide significant knowledge to an organization and can be as productive, if not more, than younger workers (Mello, 2006). Youssef (2020) found the perception of the frequency of conflicts between Baby Boomers and Millennials was significant $(\mathrm{r}(262)=.16, \mathrm{p}<.01)$. The study also found that Millennials were in conflict with Boomers, $M=3.25$, more often than in conflict with Generation Xers, $M=2.70, \mathrm{t}$ $(263)=-7.05, \mathrm{p}<.001$, two tails (Youssef, 2020). Employers will rely on skilled
professionals to assist with managing a multigenerational workforce. Experts, such as, I/O Psychologists, Chief Human Resources Officers, and others will assist employers in this endeavor. This research is essential for experts to better understand generational cohorts' work values and how to leverage these work values for a healthy and productive work environment.

According to the Society for Human Resource Management (SHRM), work values are the source of most significant differences among generations and a major source of conflict in the workplace (SHRM, 2009). However, studies also suggest that if managed well, those differences can be a source of significant strengths and opportunities (Lancaster \& Stillman, 2005). Therefore, managers need to understand the underlying value structure of each generation and differences in values among those generations if they want to create and maintain a work environment that fosters leadership, motivation, communication, and generational synergy (Wey Smola \& Sutton, 2002).

Five different generational cohorts currently exist in the American workforce: (a) traditionalists, (b) boomers, (c) generation X , (d) generation Y , and generation Z (Costanza \& Finkelstein, 2015; Cucina et al., 2018; Fratričová \& Kirchmayer, 2018; Fry, 2015; Hoole \& Bonnema, 2015; Jones et al., 2018; Kelly et al., 2016; Lester et al., 2012; Markee, 2020; Twenge et al., 2010). Although the specific name/labels and dates associated with each generation varies when referenced in the literature, it is generally agreed that traditionalists are individuals born before 1946, boomers between 1946 and 1964, generation X between 1965 and 1980, and generation Y between1981 and 1996 (Reynolds et al., 2008) and generation Z between 1997 and 2012 (Dimock, 2019).

Popular culture and academic literature suggest that each generational cohort possesses a unique set of characteristics and preferences that distinguish their workplace tendencies (Hill, 2002; Jurkiewicz \& Brown, 1998; Kupperschmidt, 2000; Martin, 2005). These bodies of literature attribute potential tensions and conflicts between different generations due to a lack of understanding among cohorts resulting from disparity in values, cognitions, and behaviors, and that such outcomes negatively affect organizational dynamics (Dittman, 2005; Twenge \& Campbell, 2008).

The manner in which these five generations coexist in the workplace is very important. Managers and employees must be equipped with skills to foster a productive work environment. In an effort to obtain organizational goals, the proper management of a multigenerational workforce is imperative. The method in which employees interact and conduct the work of the organization can be impacted by their work values and attitudes related to performing their jobs. Few studies have examined precursors that might affect individuals' attitudes toward people who are different from them in general, and fewer still have examined variables that moderate the relationship between these precursors and attitudes towards inclusiveness (Sawyer et al., 2005). These differences may be evident in the way workers approach their work, work/life balance views, employee loyalty, how authority within an organization is viewed, and other important human capital issues. Smith and Schwartz (1997) define values as beliefs that refer to desirable goals, transcend specific actions or situations, serve as standards to guide the selection or evaluation of behavior, people, or events, and are ordered by importance relative to one another. Attitudes have been defined as a relatively enduring organization
of interrelated beliefs that describe, evaluate, and advocate action with respect to an object or situation (Rokeach, 1968). Some of these interrelated beliefs may include characteristics associated with each generational cohort.

Kelly et al. (2016) reviewed research on generational diversity and gaps in the workplace. The increase in life expectancy has changed the dynamics of the workplace. Employees are working long past retirement age as new generational cohorts join the workplace. In this study, generational differences were explored for all five generational cohorts (i.e., traditionalists, baby boomers, generation X , generation Y , and generation Z). The work values of each generational cohort were compared. This comparison provided information for employers to consider when managing a multigenerational workforce. The article examined various research and the characteristics of each generational cohort. The article also broke down variables by generational cohorts, such as attitudes, behaviors, expectations, habits, and motivational factors. Notter (2009) provides the following summation of research identifying the characteristics and/or core values of each generational group. McCrindle (2014) provides characteristics for the newest generation to enter the workforce (i.e., Gen Z).

Notter (2009) described Matures/Traditionalists as displaying the following characteristics: dedication, sacrifice, hard work, conformity, law and order, respect for authority, patience, delayed reward, duty before pleasure, and adherence to rules. Attributes associated with baby boomers included optimism, team orientation, personal gratification, health and wellness, personal growth, youth, work, and involvement. Generation core values included diversity, thinking globally, balance, techno-literacy,
fun, informality, self-reliance, and pragmatism. The core attributes associated with Millennials include optimism, civic duty, confidence, achievement, sociality, morality, street smarts and diversity. According to McCrindle (2014) Generation Z is more ethically diverse, digital natives, social media influencers socially conscious, prefer texting, highlight connected with communication and media, prefer flexibility, grew up with volatile and complex social-economic environment, coping mechanisms, spatial thinkers, and the emoji generation. A more detailed description of the three generational cohorts for this study is provided below.

## Baby Boomers

Baby boomers represent the segment of the population born between 1946 and 1964 (Pew Research Center, 2015; Fry, 2020). For a long time, Baby boomers were the largest generational cohort based on number of births (Crumpacker \& Crumpacker, 2007) until the millennials became working age (Fry, 2020). Baby boomers' population estimation from the U.S. Census Bureau as of July 1, 2019, is 71.6 million (Pew Research Center, 2019). Baby boomers have been influenced by the postwar era and have experienced economic expansion in the United States (Zemke et al., 2000). They are viewed as consensus seekers who are competitive micromanagers and possess a moderate level of disrespect for authority and, above all else, approach work with a "do whatever it takes" mentality (Crumpacker \& Crumpacker, 2007; Westerman \& Yamamura, 2007). Individuals from this generation are seen as valuing teamwork, collaboration and aiming to maintain a somewhat formal and moderately paced organizational climate (Fogg, 2009; Kupperschmidt, 2006; Reynolds et al., 2008). Boomers are presumed to prefer
face-to-face interaction and conventional mail but are presumed to be open to using online tools and resources in their work (Reynolds et al., 2008; Zemke et al., 2000). They are also seen as placing workplace priorities over all nonwork life, including family, and having a strong desire for formal feedback from supervisors and management that yields financial compensation and/or promotion (Crumpacker \& Crumpacker, 2007; Fogg, 2009). Baby Boomers prefer work environments conducive to privacy for meetings and upholding confidentiality (Joy \& Haynes, 2011).

## Generation X

Generation X represents the segment of the population born between 1965 and 1980 (Pew Research Center, 2015; Fry, 2020). In comparison to baby boomers and millennials, Generation X is the smallest cohort, representing approximately a population of 65.2 million, and is projected to pass Baby boomers in 2028 (Fry, 2020). Gen Xers are often referred to as the "middle child" of generations, caught between millennials and baby boomers (Fry, 2020). Generation X's childhood and adolescence were influenced by the women's liberation movement, Watergate, and corporate downsizing and are often perceived as having a survivor mentality and being self-reliant and independent (Barrett, 2016).

Members of this generation are said to challenge authority, crave autonomy, and strive for a work-life balance in which personal activity takes priority (Reynolds et al., 2008; Twenge et al., 2010). These individuals are seen as technologically savvy preferring technology-based interactions, avoiding unnecessary face-to-face meetings, and valuing direct communication and feedback with leaders (Crumpacker \&

Crumpacker, 2007; Kupperschmidt, 2006; Martin, 2005; Zemke et al., 2000). They are interested in maintaining their credentials and skills (Lowe et al., 2011). They are not committed to one employer for their entire career (Eisner, 2005, Johnson \& Johnson, 2010). Generation $X$ is perceived to be strongly motivated by intangible rewards, such as workplace autonomy and flexibility (Lancaster \& Stillman, 2005).

## Generation Y/Millennials

Generation Y/millennials represent the segment of the population born between 1981 and 1997 and are also known as millennials (Fry, 2020; Pew Research Center, 2015). In comparison to baby boomers and generation $X$, millennials are the largest cohort, representing approximately a population of 72.1 million, and are the largest generation to enter the workplace (Crumpacker \& Crumpacker, 2007; Fry, 2020). Millennials were influenced by the horrific events of $9 / 11$, the Columbine massacre, globalization, social media, and 24-hour news cycles (Crumpacker \& Crumpacker, 2007). Millennials are highly reliant on their mobile devices that provide instantaneous access for acquiring and sharing information and the ability to multitask (Gorman et al., 2004; Howe \& Strauss, 2000; Joy \& Haynes, 2011). Gen Y typically is viewed as a technologydriven, multitasking group of individuals who are committed to generating a culturally sensitive, optimistic, and fun workplace (Sessa et al., 2007; Steele \& Gordon, 2006). This generational cohort is said to prefer working with peers in a team-oriented work environment and with bosses with whom they can relate and who value employee input (Crumpacker \& Crumpacker, 2007; Lancaster \& Stillman, 2005). Generation Y is said to strongly value fast-paced, technological interactions and constant and instantaneous
feedback from leaders (Crumpacker \& Crumpacker, 2007; Fogg, 2009; Sessa et al., 2007). Concerning work-life balance, members of Generation $Y$ are seen as desiring a balance that allows them to balance play with work in a manner that prioritizes engagements with family and friends over work commitments (Myers \& Sadaghiani, 2010). They also value meaningful jobs that allow them to be creative (Chan et al., 2013). Next, the differences between baby boomers, generation $X$, and millennials in the federal government will be explored.

## Baby Boomer, Generation X, and Millennial Differences

The 2016 FEVS report on the three generational cohort's (i.e., baby boomers, generation X , and millennials) characteristics are similar to the studies on generational characteristics external to the federal government providing generalizability evidence of the research on generational cohorts' characteristics. The 2016 FEVS report included a summary of the following generational differences: core values, communication, work ethics, view of authority, perspectives, relationships, leadership preferences, work values, and leadership styles. Baby boomers' preferences included optimism and involvement (OPM, 2016). Baby boomers valued open communication, their work ethic was described as being driven and their view of authority was described as including both a love/hate perspective. Baby boomers were described as being team-oriented, obtaining personal gratification from relationships, and hierarchical leadership. As it pertains to work values Baby boomers were characterized as workaholics, working efficiently, desiring quality, questioning authority, and valuing crusading causes. They also preferred quality leadership (OPM, 2016).

Generation X's core values included skepticism, fun, and informality (OPM, 2016). Generation $X$ preferred mode of communication is via cell phones and during work hours for work-related conversations. Generation X's work ethic is described as being balanced; however, they are unimpressed with authority. They have a self-reliant perspective and are reluctant to commit to work relationships. They have a competence drive leadership preference. Generation Xer's work values include eliminating unnecessary tasks, self-reliance, structure, and direction, and being skeptical. They viewed all leadership in the same manner and therefore value being treated with respect (OPM, 2016).

Generation Y or millennials ' core values included realism, confidence, extreme fun, and sociability (OPM, 2016). Their communication preference is via email and smartphones. Their work ethic is described as being ambitious. Their view of authority is relaxed and polite. They are civic-minded and value loyal, inclusive relationships. They believe in leadership by achievement and pulling together. Their work values included looking at what's next, multitasking, tenacity, goal-oriented, and tolerance (OPM, 2016). Their leadership style was still developing at the time of this study (OPM, 2016).

The work values of each generational cohort provide the context of core differences. These characteristics shape the generational attitudes and values that serve as the basis for interactions and outward behaviors amongst generational groups. Attitudes revolve around an attitude object or situation predisposing an individual to respond in some preferential manner (Sawyer et al., 2005). Values, on the other hand, are not tied to any specific attitude object or situation and are more basic than attitudes and often
underlie attitudes and behaviors (Rokeach, 1968). Values are core for shaping attitudes or perceptions each generational group holds about the other generation. Cucina et al. (2018) conducted a study on generational differences based on workplace attitudes (e.g., job satisfaction, employee engagement). The researchers conducted two studies using secondary data from two other empirical studies. Prior generational research studies have resulted in different perspectives on the existence of generational differences in the workplace. Work values and attitudes have been tested in previous research studies however, the explanation for other issues that emerged from prior research, such as intergenerational conflict or maturational influences, was an area of research needed. The first study analyzed the relationship between generational differences and employee attitudes using a cross-sectional design (Cucina et al., 2018). Publicly available OPM employee survey data sets from 2004 to 2012 were used to assess a diverse workforce, including employees in multiple occupations. Age groups to distinguish generational cohorts were determined by prior studies. The second study compared job satisfaction between parents and children. Data from a large longitudinal nationwide study was analyzed for this study. Statistical analysis was used to test if generational differences exist or are explained by other factors, such as stereotypes, myths, or perceptions. Although statistical significance, most generational differences in study one did not establish cutoffs of a medium effect size, Type II error was ruled out given the large power. In study two, generational differences again failed to reach Cohen's cutoff for a medium effect size. In both studies, $98 \%$ of the variance in workplace attitudes lies
within groups, as opposed to between groups, and the distribution of these variables overlapped by over 70\% (Cucina, 2018).

This research explored these work values and how generational work values and attitudes are related to the development of generational perceptions in the workplace. Proponents assert that generational values and attitudes and resulting stereotypes contribute to the workplace norms and culture (Crumpacker, M. \& Crumpacker, J., 2007). Others contend that issues attributed to the presence of multiple generations in the workplace are overstated and not supported by empirical research (Constanza \& Finkelstein, 2015; Crumpacker, M. \& Crumpacker, J., 2007). In The Intergenerational Workforce, Revisited, Johnson and Lopes (2008) concluded that stereotypes associated four generational cohorts (i.e., traditionalists, baby boomers, Generational X, and millennials) fail to hold up to closer scrutiny and that the motivation of workers, no matter the generation they belong to, has been remarkably stable over time (Wesner \& Miller, 2008). There is an increasingly prevalent perception among managers that the presence of multiple generations in today's workplace, and the differences among these generations, are creating unprecedented challenges in the nature of work and workplace relations (Costanza \& Finkelstein, 2015). However, the fact is that there is (a) minimal empirical evidence actually supporting generationally based differences (Costanza et al., 2015; Giancola, 2006; Parry \& Urwin, 2010), (b) ample evidence supporting alternate explanations for differences that have been observed (Elder, 1994; 1998; Meyer et al., 2002; Ng \& Feldman, 2010; Roberts, et al., 2006), (c) no sufficient explanation for why such differences should even exist (Parry \& Urwin, 2010), and (d) a lack of support for
the effectiveness of interventions designed to address such differences (Costanza \& Finkelstein, 2015).

This research will be pertinent for recruiting, hiring, managing, and retaining a multigenerational workforce. Shortages in the workplace due to Baby Boomers' retirement present issues with succession planning efforts and cultivating talent to avoid major deficits in productivity and preventing the loss of knowledge in the workplace. At the same time, many baby boomers and traditionalists are deciding to remain in the workplace even though they are eligible for retirement. As predicted by 2020 there are five generations in the workplace, and each brings their own values and beliefs and a different lens to the workplace (Meister \& Willyerd, 2010). The Bureau of Labor Statistics (2010, as cited in Meister \& Willyerd, 2010) projected millennials would comprise more than 50 percent of the workforce in 2020. Currently millennials are the largest generational cohort and is projected to make up a little over $40 \%$ of the workforce by 2025 (Zumbrun, 2014). Given these demographics, companies are challenged to create new strategies to deal with motivating, communicating with, developing, and engaging the members of each generation (Meister \& Willyerd, 2010).

Comparing and contrasting the opinions and research on these generational groups may illuminate some of the issues in the workplace with new workers, which may be continuations of issues from previous generations and perhaps require some similar remedies by human resources (HR) and OD practitioners (Wesner \& Miller, 2008). This research will address the myths and realities associated with the work values of each generational cohort.

Costanza and Finkelstein's (2015) explored the stereotypes that exist about generational differences in the workplace. These stereotypes develop into myths based on generational differences in the workplace. This article effectively addresses the myths to provide researchers with guidance on researching generational differences. The lack of empirical evidence supporting generationally based differences is also explored in this article. In addition to exploring the myths surrounding generational differences, this article includes the risks associated with using generational differences or characteristics in organizational decisions and makes recommendations for practitioners and researchers on how to proceed in this area.

Researchers have found evidence for gradual changes over time in work-related variables such as job satisfaction (Kacmar \& Ferris, 1989; Ng \& Feldman, 2010), organizational commitment (Ng \& Feldman, 2010), and turnover (Ng \& Feldman, 2009) as well as differences in personality characteristics such as social dominance (Roberts, et. al., 2006) and narcissism (Twenge, 2000; Twenge et al., 2008) that have been connected to work outcomes. Some researchers have extended these findings attributing them to group membership (Costanza \& Finkelstein, 2015). Benson and Brown (2011) research explored the existence of differences between baby boomers and Generation X in job satisfaction, organizational commitment, and willingness to quit. Kapoor and Solomon (2011) conducted a review of research on generational differences in the workplace in the hospitality industry. Their research discussed the characteristics of the four generations (i.e., traditionalists, baby boomers, Generational X, and millennials) in the workplace, the generation's perspectives on work, generational conflict, and managing generational
differences. The characteristics of each of the generational cohorts were found to be influential for managing a multigenerational workforce. However, it is still questionable if these differences in work values are explainable based on group membership or are there other theoretical explanations (e.g., job characteristics, PSM). Lyons and Kuron (2014) critically reviewed the research evidence concerning generational differences, including variables, personality, work values, work attitudes, leadership, teamwork, work-life balance, and career patterns. Their study found a lack of research exploring the theoretical underpinnings of the generation construct (Lyons \& Kuron, 2014). The results of time-lag, cross-temporal, meta-analytic, and cross-sectional studies substantiate generations as a workplace variable. The article suggests future theoretical and qualitative research is needed to identify mediators and moderators in the relationship between generation and work-related variables (Lyons \& Kuron, 2014). Previous research on the key constructs - motivation, job satisfaction, empowerment, and turnover intention, pertinent to this study are now examined.

## Motivation

The current study sought to identify the underlying tenets of motivation including empowerment for federal employees along with job satisfaction and turnover intention in correlation with respondents' generational cohorts. Motivation represents an individual's actions based on their cognitive decision to behave in a certain manner to achieve predetermined results (Ryan \& Deci, 2002). Individuals' actions demonstrate their levels of motivation and attitudes to achieve specific goals, which can vary depending upon various factors (Ryan \& Deci, 2002). The context in which federal employees work is
essential for exploring motivation and antecedents of work motivation (Deci \& Ryan, 2000).

Motivation in the federal government in comparison to motivation in the private sector is more intrinsic than extrinsic. A key difference in retention of federal employees can be explained through intrinsic motivation, which contributes to federal employees remaining in their jobs despite extrinsic rewards (e.g., high pay, corporate perks) (Georgelis et al., 2011). However, there are inclinations that federal employees' job satisfaction and intrinsic motivation is an issue given the challenges of attracting and retaining a multigenerational workforce (Llorens \& Stazyk, 2011; Pitts et al., 2011).

A specific motivational theory related to the workplace is job characteristics theory (Hackman \& Oldman, 1975), which focuses on an employee's perception about the extent to which their jobs offer them social support, autonomy, feedback, task significance, and task interdependence (Humphrey et al., 2007). The FEVS allows federal employees to share their work experiences and their role as public servants which aligns with job characteristics theory (Hackman \& Oldman, 1975). Research involving public servants, i.e., Special Education Teachers, showed that teachers with higher levels of autonomy were most likely to report satisfaction and lower rates of attrition (WarnerGriffin et al., 2018). Other research has confirmed a positive correlation regarding social support, autonomy, skill variety, task significance, task identity and feedback, and job satisfaction (Mat-Ali et al., 2013).

Over 200 studies have used the Job Diagnostic Survey (JDS) to assess the constructs of JCT. The JDS measures employees' perceptions of the five core job
characteristics, their experienced psychological states, their GNS, and affective outcomes including internal motivation, growth and job satisfaction, and satisfaction with several aspects of the work context. The JDS does not assess work effectiveness or knowledge and skill. These studies have supported many major tenets of the theory (Singh, A. et al., 2016). The higher jobs are on the five core characteristics, the higher the employee's growth and job satisfaction, internal motivation, and work effectiveness (Singh, A. et al., 2016). Research has shown that the core job characteristics are affected by personal and work outcomes of the three psychological states. The five core job characteristics increase the experiences of the three psychological states which positively impact employee satisfaction, internal work motivation, and work effectiveness (Singh, A. et al., 2016). In other words, higher scores on the JDS correlated with job satisfaction and motivation. This study included a comparison of constructs measured by the FEVS to test the relationship between the constructs and generational cohorts.

Marlowe (2015) conducted a study using JCT to explore the motivation of information technologists in the federal government. Data from the 2012 FEVS was mapped to the JDS (Hackman \& Oldham, 1975). A correlation between the FEVS and JDS questions was confirmed using a rotated structure matrix. The study found a clear statistical preference by information technologists for motivation based on the job characteristics, feedback, and task significance.

As previously stated, Federal employees are motivated by the work they performed or their satisfaction with their work. A recent study using JDS measuring the work motivation of 150 schoolteachers found a significant association between
motivating potential scores of the job of a schoolteacher with age (see Table 1). The chisquare test result was less than .05 indicating an association between MPS and age (Nagrath, 2019). The same study (see Table 2) also identified an association between the five job characteristics of the MPS with age resulting in a significant association of skill variety, task identity, and task significance with age (Nagrath, 2019).

## Table 1

Association Between Age and MPS

| Motivating potential score (MPS) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age $\downarrow$ | Low |  |  |  |  |
|  | Average <br> motivating <br> potential | High <br> motivating <br> potential | motivating <br> potential | value | Sign. |
| 20-30 (A) | 76 | 1 | 0 |  |  |
| $31-40$ (B) | 42 | 1 | 0 | 15.764 | 0.015 |
| $41-50$ (C) | 21 | 4 | 1 |  |  |
| $51-60$ (D) | 4 | 0 | 0 |  |  |

Note. Nagrath, 2019

## Table 2

Association of Age With MPS Characteristics

| Age | MPS characteristics | $\mathrm{X}^{2}$ value | Sign. |
| :---: | :--- | :---: | :---: |
| Teacher | Skill variety (SV) | 62.64 | .000 |
|  | Task identity (TI) | 91.00 | .000 |
|  | Ausk significance (TS) | 67.45 | .0001 |
|  | Feedback (F) | 46.49 | .060 |
|  | 37.81 | .524 |  |

Note. Nagrath, 2019

Table 1 provides a summary of MPS scores by age groups which can vary from 1 to 125 (Nagrath, 2019). The MPS ranges included 1 to 50 for the low motivating potential of the job, 50 to 70 for average motivating potential of the job, and 75 to 125 represents a high motivating potential of the job which in return can motivate employees (Nagrath, 2019). Mostly all the teachers' MPS fell in the lower motivating potential
range. Table 2 includes the association between the MPS characteristics and age. Skill variety, task identity, and task significance are related to age; however, autonomy and feedback were not related to age for this study. According to Nagrath (2019), the results of this MPS can be translated as meaning that older schoolteachers seek more variety in their jobs (Nagrath, 2019).

Recent studies on motivation have also included a link to turnover intention. In 2015 Malone explored the job characteristics of information technology employees in the federal government. The study found a small preference by information technologists for motivation based on job characteristics, feedback, and task significance, and no preference for autonomy and skill variety. There was no difference for the task identity construct. This study implies that supervisors of information technologists should focus more on public service aspects of their projects while maintaining open communication with employees to maximize productivity. In 2018 both Miller and Jefferson conducted studies on motivation using FEVS data. Miller (2018) used social exchange theory, employee engagement theory, and PSM theory to investigate the differences between veterans and non-veteran Federal employees in terms of their engagement and turnover intention. Data from the 2015 FEVS was used to test the hypothesis. The results indicated that employee engagement had a negative relationship with turnover intention. Military veterans' status, age, and tenure moderated the relationship between engagement and turnover intention (Miller, 2018). Jefferson (2018) used FEVS 2015 secondary data to explore how intrinsic and extrinsic job motivators impact employees’ intention to leave. The study was grounded in Herzberg's 2 Factor Motivation Model and examined the
likelihood of employee perceptions regarding work experience, leadership practices, and supervisor relationships with predicting employees’ intent to leave (Jefferson, 2018). The study included three predictor variables (employee perceptions regarding work experience, leadership practices, and supervisor relationship with employees). The results of the binary logistic regression analysis did not show a significant relationship between employee perceptions of supervisor relationships with employees. In 2020 Markee studied intrinsic motivation, employee engagement, generational cohorts, and turnover intention using FEVS data. The study found there was a significant difference in intrinsic motivation between Millennials and non-Millennials for U.S. Federal employees.

## Turnover Intention

The influence of job satisfaction and PSM including turnover intention was explored for this study as well. Research has identified a relationship between job satisfaction, motivation, and turnover intention in general. A study by Taylor (2014) found that government employees with strong norms regarding public service duties had a higher level of job satisfaction. Specifically, this study took a closer look at the dynamics of this relationship or a relationship between these constructs in the federal government. The federal government continues to seek solutions to mitigate employee turnover rates and to retain employees with needed skills and in terms of diversity (Kim \& Fernandez, 2017). Turnover is the precursor of declines in effectiveness and productivity within organizations and can be costly due to the replacement of employees and training cost for onboarding new employees (Llorens \& Stazyk, 2011).

Ertas (2015) studied the turnover intentions and work motivation of Millennials in Federal Service using 2011 FEVS data. The study compared the turnover intentions of Millennials and other age groups already in public service (Ertas, 2015). Millennials were found to be more likely than other generational cohorts, i.e., Traditionalists, Baby Boomers, and Generation X, to report an intention to leave their jobs (Ertas, 2015). Other studies identified multiple factors using traditional theories of job satisfaction pertaining to public employees (Jilke, 2016). One study (Kim \& Min Park, 2014) included job satisfaction and turnover intention within the public sector, but demographic variables (e.g., age or generational cohorts) were not a part of the study. There are also studies that compared the public and private sectors. Differences found in these studies included the higher level of job security government employees possessed in comparison to private sector employees (Voon \& Ayoob, 2011).

Another study (Vanderschuere, 2016) using 2012 FEVS data found that veterans are more likely to express turnover intention than nonveterans. The study controlled for traditional antecedents of turnover including race, tenure, pay, job satisfaction, and age, found initially that veterans are $14.1 \%$ more likely to express turnover intention than nonveterans. Also, the study found statistical differences in job satisfaction between veterans and non-veterans while controlling for other demographics (Vanderschuere, 2016).

A study conducted by Wynen and Op de Beeck (2014) analyzed FEVS data to test the effect of the 2008 economic recession had on federal employee turnover. A regression analysis was used including years 2006, 2008, and $2010(n=43,320,36,637, n=59,760)$
showed that turnover invention significantly decreased following the economic disruption in 2008. Wilson and Chaudhry (2017) linked psychological empowerment and organizational support for development to a decrease in turnover.

Multiple studies have examined turnover intention using FEVS secondary data. As previously mentioned, Alexander (2015) conducted a quantitative, nonexperimental correlational study using a descriptive research design using secondary FEVS data and random sampling. The study found a statistical significance variance for perceived leadership facilitation and support (PLFS). An increase in PLFS reduced the likelihood of turnover intention. The study found evidence for PSM impact on turnover intention in the federal government and that managers should focus on PSM to improve productivity. Intrinsic and extrinsic job motivators were explored for predicting the likelihood of employee intent to leave by using FEVS (2015) secondary data. The study was grounded in Herzberg's 2 Factor Motivation Model and examined the likelihood of employee perceptions regarding work experience, leadership practices, and supervisor relationships with employees' intent to leave (Jefferson, 2018). The study included three predictor variables (employee perceptions regarding work experience, leadership practices, and supervisor relationship with employees). The results of the binary logistic regression analysis did not show a significant relationship between employee perceptions of supervisor relationships with employees. Kirkman (2017) also used the FEVS data from 2011 to 2016 to determine connections between voluntary turnover, demographics, workplace satisfaction, and organizational factors within the federal sector. The results of the longitudinal, correlational study showed a strong connection between age and the
likelihood of voluntary turnover (Kirkman, 2017). Kirkman's (2017) study and others have proven the FEVS validity and reliability.

Turnover intention among generational cohorts may be misleading if other factors are not considered. For example, a study by Vandershuere (2019) found that more veterans than non-veterans were willing to leave their federal jobs. The study contributed to the difference between the turnover intention of veterans and non-veterans was due in part to the normalcy associated with their military backgrounds and the frequent changes in locations due to military service. Another study (Miller, 2018) also focusing on veterans used social exchange theory, employee engagement theory, and PSM theory to investigate differences between veterans and non-veteran federal employees in terms of their engagement and turnover intention. Data from the 2015 FEVS was used to test the hypothesis. The results indicated that employee engagement had a negative relationship with turnover intention. Military veterans' status, age, and tenure moderated the relationship between employee engagement and turnover intention (Miller, 2018).

Hughes (2020) conducted a study to examine the perceptions of female veterans' turnover intention in the federal government by using secondary data from the FEVS. The study found that female veterans were more likely to express intent to leave than male veterans. Also, younger veterans were more likely to express turnover intention than older veterans. My research expands Hughes's study beyond the veteran demographic to all federal employees. Young (2021) studied procedural justice and its relationship to turnover intention at the U.S. Department of Justice (DOJ) using FEVS data. A binomial logistic regression analysis was used. The study found a negative relationship between
procedural justice perceptions and the turnover intention among DOJ employees. When employees' procedural justice is high, the less likely they are to say they are leaving. When employees' procedural justice is low, the more likely they are to say they are leaving. A study (Missildine, 2021) examined the impact of job satisfaction on employee turnover intent in the federal government using FEVS data from 2017. A quantitative methodology was used to include gender and turnover intention. According to the study gender and turnover intention are independent of each other, but the study supported that job satisfaction significantly affected intention to leave. Therefore, the study suggests that job satisfaction is a significant predictor of turnover and employers should target characteristics of job satisfaction in addressing employees' turnover intention.

## Job Satisfaction

Job satisfaction is one of the most well-established researched topics of workrelated behavioral studies (Rainey, 2014). Job satisfaction can be defined as the degree that people like their work (Balouch \& Hassan, 2014). Locke (1970) and Weiss (2002) define job satisfaction as emotions or attitudes experienced by individuals evaluating their work to determine their satisfaction with their job. Job satisfaction research conducted prior to and since Herzberg and Locke includes a multitude of different theories and approaches for more than 100 years (Parker et al., 2017). In fact, job satisfaction has been found in approximately $70 \%$ to $80 \%$ of published articles on studies relating to worker attitudes (Judge et al., 2017). Employee satisfaction has been associated with the productivity of workers (Kornhauser \& Sharp, 1932; Judge et al., 2017). The happy/productive worker (Demerouti et al., 2014) paradox has been referred
to as the "Holy Grail" of job satisfaction research (Judge et al., 2001), however, evidence validating this has not been strong (Oswald et al., 2015).

Constructs from the FEVS like job satisfaction are used to identify potential problems and potential improvement areas for federal employment (Fernandez et al., 2015). Prior studies have identified a number of obstacles to job satisfaction such as lack of promotion opportunities, low pay, red tape, and goal ambiguity (Finlay et al., 1995; Light, 2008; Rainey, 2014; Wright \& Davis, 2003). Employee motivation aligned with organizational goals has contributed to a better chance of achieving job satisfaction (Le Grand \& Roberts, 2018). Motivation can be customized to baby boomers, millennials, and Generation X or generational cohorts (Calecas, 2019).

Research on millennials (Bodenhausen \& Curtis, 2016) identified goal-seeking and accomplishment as important. Millennials were found to be interested in understanding performance expectations, receiving personalized support, and aspiring to grow as an individual (Bodenhausen \& Curtis, 2016). Millennials were described as investors in an organization expecting quicker returns in comparison with other generations (Aruna \& Anitha, 2015). Job satisfaction for millennials is important for retention (Calecas, 2019).

Herzberg et al. (1957) associated age, tenure, job level, and salary as variables affecting levels of job satisfaction (De Matas, 2011). Researchers have indicated that younger employees have higher levels of job satisfaction (Herzberg et al., 1957) while other researchers (Bernal, et al., 1998; Hulin \& Smith, 1965; Lee \& Wilbur, 1985) indicated satisfaction increases with age. Contrarily, employees' job satisfaction has been
found to decrease just before retirement (Saleh \& Otis, 1964). The Herzberg Two-Factor model was used in the earliest studies of job satisfaction to explore external and internal motivator's impact on employee's feelings of satisfaction and dissatisfaction (Herzberg et al., 1959). Other researchers (Amiri et al., 2017) have also used Herzberg's motivationhygiene theory to identify factors that impact job satisfaction and dissatisfaction. There is an association between job satisfaction and the compatibility of individuals with their jobs. Job characteristics theory may be used as a lens to interpret job satisfaction along with employees' satisfaction with their work.

Choi and Raney (2014) conducted a study analyzing how managing demographic diversity is related to public employees' job satisfaction with secondary OPM data. Past studies (Harrison et al., 2006; Wright \& Davis, 2003; Wright \& Kim, 2004) that examined job satisfaction of employees provided evidence supporting the correlation between diversity demographics and job satisfaction with job satisfaction being one of the most important measurements for motivation improving employee performance and reducing negative outcomes/behaviors (e.g., turnover and absenteeism). Other empirical research has demonstrated evidence that efforts to manage diversity can increase employee job satisfaction (Choi, 2009; Choi \& Rainey, 2010; Pitts, 2009).

Both job satisfaction and motivation have been found to influence job performance (Irwan, 2018). Motivation and job satisfaction have also been associated with turnover intention. Some research has focused on various constructs including the value congruence of person-organization fit with PSM (Bright, 2008; Steijn, 2008; Teo et al., 2016), commitment and job satisfaction (Kim, 2012), job stress (Mostafa, 2016), and
turnover intention (Moynihan \& Pandey, 2008). A few studies focused on person-job fit (Christensen \& Wright, 2011), job satisfaction (Liu et al., 2015; Quratulain \& Khan, 2015), and retention (Starks, 2007).

## Empowerment

In the FEVS technical report OPM (2019) defines employee engagement as conditions that would be expected to lead to engaged employees (e.g., effective leadership, work that provides meaning to employees, the opportunity for employees to lead/grow on the job, etc.). Bowen and Lawler (1992) define empowerment as a multidimensional managerial approach composed of providing performance-based rewards, access to job-related skills and knowledge, the discretion to change work-related processes, and information about performance and goals (Fernandez \& Moldogaziev, 2013a). Empowerment is measured in the 2019 FEVS by one item or item number 30. Employee engagement involves feelings and demonstrations of empowerment, involvement, commitment, and satisfaction (Harter et al., 2002; Mone et al, 2011), and may be used to interpret attitudes (Macey \& Schneider, 2008). Employee engagement is also an aggregate of management practices that include encouragement to innovate (Fernandez \& Pitts, 2011), building trust, and empowerment of employees (Mone et al., 2011), which are factors that drive engagement.

Fernandez and Moldogaziev (2011, 2013a, 2013b) previous research confirmed that employee empowerment positively affects job satisfaction. The study found a positive effect of employee empowerment on job satisfaction, but also varying effects of different individual empowerment practices based on the satisfaction of the need for
competence and autonomy (Fernandez \& Moldogaziev, 2013b). Another study including empowerment practices resulted in lower turnover and increased motivation (Cho \& Perry, 2012). Other studies on the relationship between employee empowerment and satisfaction confirmed empowerment is a driver of and positively influences employee and job satisfaction (Fernandez \& Modogaziev, 2013a, 2013b; Jun et al., 2006; Mone et al., 2011). Empowerment in public organizations is a strong predictor of job satisfaction (Jun et al., 2006). There is a need to expand research on empowerment practices used in the federal government and the effects of empowerment on job satisfaction. This study explored job satisfaction, motivation, empowerment, and turnover intention through the lens of Generational Cohort Theory, Herzberg Motivation Theory, PSM, and Job Characteristics Theory.

## Synthesis of Literature

Per Leider et al. (2016) more research is needed to explore variables that influence the job satisfaction of federal employees. Future research is crucial to fostering a highly functioning workforce (Wagner et al., 2015). Decreases in job satisfaction among federal government employees since the 1980s have been a concern (White, 2016). Over the past five years, job satisfaction according to the FEVS has not significantly increased (OPM, 2019a). In 2014 (Davis) more than 226,000 federal employees reported their unhappiness with their jobs and the leadership within their organizations. In 2019, there was a slight increase (i.e., $68 \%$ to $69 \%$ ) in job satisfaction (OPM, 2019), followed by a modest increase in 2020 (i.e., $69 \%$ to $72 \%$ ) and then a loss in momentum in 2022 (i.e., 66\%) below 2018 and 2020 (i.e., $68 \%$ and $72 \%$ ) gains in job
satisfaction scores governmentwide (OPM, 2022). This study will test by analyzing the secondary data from FEVS if federal employees with low job satisfaction report higher turnover intention and if so if their job satisfaction and turnover intention differ by generational cohort. Job satisfaction has been found to influence the turnover intention of federal employees (Llorens \& Stazky, 2011; Pitts et al., 2011). Jobs satisfaction through comprehensive research has been associated with job performance and identified hygiene factors that have contributed to the dissatisfaction of employees (Herzberg, 1959).

The fact is the causes or main influences of government-wide turnover is unknown, however, there are indications that job satisfaction and turnover issues do exist as reflected in the annual FEVS. Employee turnover issues have been targeted as a governmentwide human capital goal for years (Kim \& Fernandez, 2017). The impact of high levels of turnover may impact the quality of services the federal government provides to the American people. Fedscope data from OPM (2019) shows that the most frequent occupations (e.g., Nursing, Information Technology) in which there is turnover in the federal government. These occupations also encompass the newest hires annually. As demographic shifts continue to occur due to retirement and staffing changes, retraining a multigenerational workforce with 21st Century skillsets will be imperative. Job satisfaction and turnover intention within the public sector were investigated by Kim and Min Park (2014). Kim and Min Park (2014) found that certain predictors and mediators played a major role in decreasing turnover intention and significantly boosting job satisfaction. This study will expand the research on job satisfaction in the federal government (Nahar et al., 2013; Taylor \& Westover, 2011; Voon \& Ayob, 2011).

Most of the recent research literature attributes turnover within the federal government to job satisfaction, pay, and motivation (Dimichele, 2020; Hughes, 2020; Nash, 2016, Soria, 2019). This research will explore the influences of turnover intention in the federal government based on generational cohorts which is limited in the research literature.

Past studies have exemplified PSM, extrinsic workplace attributes, intrinsic workplace attributes, work relations with managers, and work relations with co-workers as important independent variables for job satisfaction (Taylor \& Westover, 2011). Intrinsic workplace attributes (high work autonomy and an interesting job) along with work relationships with managers were found to be the most influential predictors of job satisfaction for federal employees. These attributes align with HMT and JCT in regard to the satisfiers that influence employees and job characteristics that can lead to employee dissatisfaction with their work impacting their overall satisfaction. The FEVS includes elements found in the GSI, EEI, and turnover intention that assess federal employees' views in these areas based on various demographics including age or generational cohort. Past research has been contradictory and has not been attributed to these findings. This study will add to the empirical literature on multigenerational research using FEVS data and the impact of motivation and job satisfaction on turnover intention amongst generational cohorts in the federal government. Next, Chapter 3 includes the research method for this study.

## Chapter 3: Research Method

The purpose of this quantitative research study was to explore the perceptions of multiple generations working together in the federal government. This study focused on the factors associated with generational diversity in the federal government. Additionally, I compared generational cohort differences based on employee job satisfaction, motivation, empowerment, and turnover intention. Prior research has indicated that the overall attrition government-wide is a serious issue (Ertas, 2015). Other challenges include age diversity, turnover, retirement eligibility, and a smaller than average millennial workforce in the federal government (Goldenkoff, 2014).

In this research, I tested whether generational stereotypes were supported by generational cohort theory. This research can help to shape federal policies on generational diversity in the workplace and develop strategies for attracting, hiring, and retaining a workforce of the $21^{\text {st }}$ Century. The Presidential Management Agenda recently issued includes governmentwide talent management goals that aligned with this study to strengthen and empower the federal workplace (see White House.gov, 2022).

This chapter covers the overall research method and design for this study, including descriptions of the study population, materials/instruments, operational definition of variables, data collection, processing, analysis procedures, assumptions, limitations, delimitations, and ethical assurances. The following RQs and hypotheses guided this study:

RQ1: To what extent do generational cohorts differ in turnover intention while controlling job satisfaction and motivation?
$H_{0} 1$ : There is no significant difference in generational cohorts after controlling for job satisfaction and motivation.
$H_{1} 1$ : There is a significant difference in generational cohorts after controlling for job satisfaction and motivation.

RQ2: Are there differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS?
$H_{0}$ 2: There are no statistical differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS.
$H_{1} 2$ : There are statistical differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS.

RQ3: Are there differences across generational cohorts' perceptions of motivation as measured by the FEVS?
$H_{0} 3$ : There are no statistical differences across generational cohorts' perceptions of motivation as measured by the FEVS.
$H_{1} 3$ : There are statistical differences across generational cohorts' perceptions of motivation as measured by the FEVS.

## Purpose of the Study

The purpose of this study was to examine the associations between job satisfaction, motivation, empowerment, and turnover intention among federal employees who differed based on belonging to a generational cohort. The results of this study can provide federal agencies data or evidence that may be used to drive human capital initiatives governmentwide to design an effective hiring strategy for recruiting and
retaining a multigenerational workforce. This study provided research on the influence of job satisfaction, motivation, and empowerment's impact on turnover intention of baby boomers, Generation X, and millennials in the federal government using secondary data from the FEVS.

## Research Design

Research designs comprise three main approaches - qualitative, quantitative, and mixed studies. This study included a quantitative design based on secondary data available from the FEVS. The FEVS data were used to analyze the statistical significance and for examining relationships between variables (see Tarahan \& Yilmaz, 2014). The quantitative method was appropriate to examine the independent variable (i.e., generational cohorts) and the dependent variables (job satisfaction, motivation, empowerment, and turnover intention). The use of secondary data was cost-effective and represented the most comprehensive and best available data for conducting this study.

## Population

The population for this study included all federal employees who participated in the FEVS in 2015. Secondary data from the FEVS included responses from 421,748 federal employees, with a response rate of 49.7\%. The data included Item Number 69 and 71 for job satisfaction; Item Numbers 3, 4, 6, 11, and 12 for motivation; Item Number 30 for empowerment; and Item Number 94 for turnover intention. The data also included demographic information, including age or generational cohort. There was minimal data for traditionalists. Therefore, I focused on three generational cohorts: baby boomers, Generation X and Generation $\mathrm{Y} /$ millennials.

## Sample

The sample for this study consisted of federal employees who worked in the federal government in 2015. Out of a total of 2.1 million federal employees, 49.7\% responded to the FEVS. The sample strategy I used for this study included a randomized sample of respondents based on the three generational cohorts and the statistical test used for this study. To determine the appropriate sample for each generational cohort, I conducted a G*Power analysis for both a chi-square $X^{2}$ and a one-way ANOVA. The chisquare $X^{2}$ resulted in the higher number for the four generational groupings to include 226 for each group. The secondary data provided by OPM included four generational groupings covering the three generational cohorts for this study. The 2015 dataset generational cohorts were represented by four generational categories. The categories included (a) less than 40 , (b) 40 to 49 years old, (c) 50 to 59 years old, and (d) 60 years and older. I opted to use a sample of 230 federal employees in the study for each generational cohort grouping. A previous study using FEVS data recommended using a randomized sample of respondents (see Gransberry, 2020). The FEVS response rate was sufficient for conducting this study. The FEVS results provide agencies with employee feedback on various organizational factors impacting employee satisfaction and engagement within their organizations. Agency leadership uses the FEVS to identify areas for improvement, identify trends, and track organizational culture in federal agencies.

## Materials/Instruments

The FEVS measures motivation and job satisfaction of federal employees in addition to other variables, such as empowerment and turnover intention. The items included in the FEVS for each of these variables are combined to assess employees' satisfaction with their job, their pay, and their organization, plus willingness to recommend their organization as a good place to work (OPM, 2019a). Three generational cohorts were compared to determine if there is evidence of significant statistical differences across generations. Job satisfaction, motivation, empowerment, and turnover intention were used to identify any significant statistical differences between each generational cohorts' turnover intentions. The items for the global satisfaction index including job satisfaction, motivation, empowerment, and turnover intention are described in this section.

The statistical test selected for this study included a chi-square $X^{2}$ for $H 1$ and a one-way ANOVA for $H 2$ and $H 3$. I considered other statistical tests, such as, a MANOVA and MANCOVA; however, the scales of measurement or variables to be measured failed to meet the assumptions required, that is, using interval or ratio variables, for a MANOVA/MANCOVA. The chi-square $X^{2}$ is used for testing the association between two nominal/dichotomous variables (Laerd Statistics, 2023). The chi-square $X^{2}$ test is used for association between two nominal variables by comparing the observing frequencies to the expected frequencies (Laerd Statistics, 2023). The test produces a statistic based on the difference between the observed and excepted frequencies (Laerd Statistics, 2023). The ANOVA is used to determine if there are statistically significant
differences between the means of two or more independent groups (Laerd Statistics, 2023). Both are appropriate for analysis for this study.
$H 1$ was tested using a chi-square $X^{2}$ to determine a statistical significance between generational cohorts based on turnover intention while controlling for job satisfaction and motivation. An ANOVA was used to test $H 2$ and $H 3$ for each construct to test the significance of job satisfaction, motivation, and turnover intention for each generational cohort. The FEVS items for each of the dependent variables are described next. Secondary data from the OPM 2015 FEVS were used for this study. OPM collects climate survey data reaching $97 \%$ federal agencies and 2.1 million federal employees on an annual basis (Fernandez et al., 2015). The 2015 FEVS included data from 82 agencies and 903,060 federal employees' job satisfaction, motivation, turnover intention, and each generational cohort. Data from the FEVS are published on OPM's website and are available publicly for use of the data without needing permission. OPM (2015) reported that the sample size was more than sufficient to ensure a $95 \%$ change that the true population value would be between plus or minus $1 \%$ of any estimated percentage of the federal workforce, indicating validity (p. 5). A priori power analysis was conducted using G*Power to determine the minimum sample size for this study. The four factors considered were significance level, effect size, the power of the test, and statistical technique. Cohen's (1988) categories of effect size include small, medium, and large. The medium effect size prevents the extremes of the effect size being too small or too large (Berger et al., 2013). The statistical test for this study was a chi-square $X^{2}$ using repeated measures between factors. A medium effect size at 5\% level of significance with $80 \%$
power and at least 226 participants was required (Appendix F). The number of participants in the FEVS 2015 outnumbered the participants requirements for this study. The 2015 FEVS included participants from each generational group and multiple federal agencies, representing 214,585 baby boomers, 274,189 Generation X, and 122,953 Generation Y federal employees. My research design included maximizing the data available for the three generational cohorts from the 2015 FEVS. After performing a G*Power analysis and determining the minimum sample size, I cleaned the data to include over 17,000 data files and then randomly selected a sample. A sample of 230 for each generational cohort grouping or a total of 920 was used for this study. The sample for this study was more than sufficient.

Studies have supported the high generalizability and reliability of the FEVS (Fernandez et al., 2015; Jin \& Park, 2016; Soyoung \& Sungchan, 2017). Some of the prior research included reliability information for multiple variables, which I included in this study. For example, Cantarelli et al.'s 2016 meta-analysis of 99 studies found a positive and strong correlation between job satisfaction and intrinsic motivation (.53). A positive and moderate correlation was found between job satisfaction and PSM (.20). A negative and moderate correlation was found with turnover intention (-.46). Next is a breakdown of each construct for this study, including published validity (i.e., convergent or divergent validity) and reliability evidence from previous studies if available.

## Instrumentation and Statistical Evidence

The FEVS includes strengths and weaknesses for conducting and furthering public management research. One strength of the FEVS is its data are representative and
generalizable (Fernandez et al., 2015). The FEVS surveys most of the federal employees in the executive branch and includes 82 major agencies (OPM, 2015b). The methodology used by OPM draws statistically valid samples from each of the agencies participating in the FEVS. Another strength is the public management concepts covered by the FEVS. The independent and dependent variables covered in the FEVS are supported by other research and theoretical frameworks. As depicted in Appendix C, three-quarters of the research using the FEVS identified by Fernandez et al. (2015) developed summated rating scales to measure independent and/or dependent variables. Secondly, the FEVS has been administered annually many times with the same agencies, providing longitudinal survey data and evidence for trend analysis, inferences, and providing secondary data for other research opportunities. Furthermore, FEVS items can be used to replicate multivariate regression analyses and validate measures of concepts (e.g., using confirmatory factor analysis) across different samples of employees over time (Fernandez et al., 2015).

Some weaknesses of the FEVS include survey pitfalls such as the lack of differentiation as it pertains to individual organizational culture. Each federal agency has its agency missions and organizational culture. The FEVS items capture information and data from federal employees and interpret these data using a governmentwide approach. The FEVS does provide agency-specific reports in which agencies may delve deeper to analyze in context organizational cultural issues; however, it is difficult to factor in this level of analysis across government or truly know the impact of an organizational specific cultural issue or how it may skew the interpretation of governmentwide results of
the FEVS. Other critics are the inclusion of items for a specific period of time; for example, OPM added a question on the 2018/2019 furlough in the 2019 FEVS. The longevity or implications of the furlough during this time may have long-lasting effects, such as turnover. However, the statistical connection between FEVS survey items and other contrasts, such as organizational climate, turnover attention, or other variables is not clear. Also, in terms of instrumentalization, the impact of an added survey item for a specific period of time should be determined as well.

According to Weisberg et al. (1996) and Robbins (1999), a strong question must be relevant and unambiguous, capture a single concept (i.e., avoid being "doublebarreled"), and not lead the respondent to answer in a particular way. Previous studies have validated the items included in the FEVS. Another critic is related to validity as much of the published research is OPM's omission of measurement validity across settings and samples (Fernandez et al., 2015). There is substantial research establishing the reliability and validity of the FEVS (Beals, 2016; Bertelli, 2006, 2007; Brown, 2017; Caillier, 2012, 2013a, 2013b, 2013c; Cho \& Perry, 2012; Cho \& Ringquist, 2011; Cho \& Sai, 2013; Choi, 2009, 2010, 2013; Choi \& Rainey, 2010, 2014; Ertas, 2015; Fernandez, 2008; Fernandez et al., 2010; Fernandez \& Moldogaziev, 2011, 2013a, 2013b, 2015; Fernandez \& Pitts, 2011; Jung, 2010; Jung \& Lee, 2015; Kellis \& Ran, 2013; C. Kim \& Schachter, 2015; J. Kim \& Wiggens, 2011; Lee, H. et al., 2006; Lee, J. \& Cho, 2011; Lee, S. \& Hong, 2011; Lee, S. \& Whitford, 2008; Notgrass, 2015; Oberfield, 2014a, 2014b; Oh \& Lewis, 2007; Park, 2012; Pitts, 2009; Pitts et al., 2011; Polk, 2015; Rubin, 2009; Sabharwal, 2015; Somers, 2018; Trottier et al., 2008; Whitford et al., 2010; Yang,

2011; Yang \& Kassekert, 2010). Overall, the advantages of FEVS data as argued by Fernandez et al. (2015) include representativeness, generalizability, consistency, availability for the public, and compatibility with other government data.

## Operational Definitions of Variables

The operational definitions of variables for this study include the following:
Age: Refers to the variation associated with aging attributable to life stage and maturity (Costanza \& Finkelstein, 2015). The FEVS asks employees to categorize their age as 25 and under, 26 to 29,30 to 39,40 to 49 , 50 to 59 , and 60 or older (Soria, 2019).

Baby boomers: Individuals born between 1946 and 1964 (Pew Research Center, 2015; OPM 2019b).

Generational cohort: Members of an identifiable group (i.e., traditionalists, baby boomers, Generation X, millennials, and Generation Z) who share a specific span of time and have experienced similar environment and social experiences (i.e., historical, political, and economic events and situations; Hannay \& Fretwell, 2011; Kupperschmidt, 2000).

Generation X (Gen Xers): Individuals born between 1965 and 1980 (OPM, 2019b).

Job satisfaction: The level of contentment employees feels toward their jobs and is enhanced or influenced by different factors, including (a) availability of resources, (b) teamwork, (c) supervisors following up, and (d) personal attitudes (Abu-Shamaa et al., 2015).

Millennials: Individuals born during 1981-1996 (OPM, 2019b).

Motivation: In the workplace behavior determined by the level of input that employees will put in the organization to commit to suitable performance (Singh, A., 2016).

PSM: "A calling" for individuals who respond to pro-social values and who desire to solve social problems, serve others, and improve public welfare (Holzer, 1999).

Turnover intentions: A measure of whether an employee intends to leave an organization. Turnover intention has been found to be highly correlated with actual turnover (Cohen et al., 2016; Lee et al., 2018).

## Data Collection, Processing, and Analysis

The data collection process included the review of secondary data files (Appendix B) available on OPM's website and the technical report issued by OPM that described the sample design, sampling frame, and stratification variables, the survey instrument, data collection, data cleaning, and data analysis plan. The technical report explained the FEVS formula used by OPM for weighing each respondent to the 2015 FEVS. The weights are used to ensure unbiased influences of the full population of federal employees. OPM statisticians used a three-stage plan, industry-standard procedures to establish full sample weights (OPM, 2019).

The primary data analysis conducted by OPM included a three-stage industry standards procedure to establish full sample weights (2016). The FEVS used a 5-point Likert-type response scale. OPM collapsed the 5-point scale to a 3-point scale to categorize the response data. The positive category combined percentages of respondents who answered strongly agree or agree; very satisfied or satisfied; or very good or good.

The neutral category grouped the middle response range including neither agree nor disagree; neither dissatisfied nor dissatisfied and fair. The final category represented the negative percentage range of respondents who answered strongly disagree or disagree; very dissatisfied or dissatisfied; or very poor or poor. Missing data or items not answered were not included in the calculation of response percentages for those items.

This study analyzed data from the FEVS (OPM, 2015a) regarding job satisfaction (items 69 and 71), motivation (items 3, 4, 6, 11, 12, and 30 - empowerment), and turnover intention (item 94). The analysis included all federal employees who responded to the FEVS in 2015, which totaled 421,748 federal employees at various federal agencies for a response rate of $49.7 \%$ (OPM, 2015a).

SPSS Version 28 for Windows was used to analyze the survey items from the 2018 FEVS. The data analysis plan for Hypothesis 1 included descriptive statistics and a chi-square $\mathrm{X}^{2}$ was used to determine if there is a significance association between generational cohorts based on turnover intention while controlling for job satisfaction and motivation. The independent variable is the generational cohort - baby boomers, Generation X, and millennials. The dependent variables are turnover intention and empowerment as well as job satisfaction and motivation as two covariates. The data analysis plan for Hypotheses 2 and 3 included descriptive statistics and a one-way ANOVA to test the statistical significance differences across generational cohorts' perceptions of job satisfaction, motivation, and empowerment on turnover intention for each generational cohort.

## Unit of Analysis

The FEVS data collected by OPM included federal government employee responses. The independent variable, generational cohort or age cohort resulted in the three groups - baby boomers (born 1946-1964); Generation X (born 1965-1980); and Gen Y (born 1981 to 1996). The independent variable is categorical. The dependent variables - job satisfaction, motivation, and turnover intention - are ordinal.

## Threats to Validity

Threats to validity could impact the applicability of research to the real world. Validity in research represents whether an instrument measures what it was intended to measure (Frankfort-Nachmian et al., 2008). Data from the FEVS has been used in various research studies. Statisticians at OPM publish annual technical reports providing the overall rationale and model for the FEVS, including the methodology used to ensure validity. OPM used weights to alleviate issues with validity. This approach included the calculation of weights to avoid biased population estimates (OPM, 2015a). OPM used nonresponse weights as well to adjust for survey nonresponse.

Threats to internal and external validity are another concern. Internal validity could be impacted by bias, testing, instrumentation, attrition, statistical regression, research, reactivity, and the passage of time (Campbell \& Stanley, 1963). These factors are not identified as a threat to validity for this study. External validity refers to the generalization of the study results across an entire population. While other FEVS studies were limited to one federal agency, this study will include federal agencies governmentwide, which increases the study's external validity. However, the smaller
population of traditionalists and Generation Z will limit the generational cohorts examined in this study.

## Ethical Procedures

OPM provides in their technical report privacy and confidentiality procedures followed for the FEVS. FEVS datasets are available for public use to download. The federal government and other research OPM may conduct governmentwide studies in compliance with federal regulations and laws. OPM acknowledges adherence to laws given ethical procedures for conducting surveys. OPM protects the identity of survey participants. No publicly identifiable information is included in the data records. Data analysis was conducted after IRB approval. I received IRB (Number 11-28-22-0738310) approval on November 28, 2022. The data used for this study is stored on my hard drive and password protected. I will retain the information for five years. Access to the file and data will be limited to me only. After five years I will delete the record of the files on my hard drive.

The study includes data from OPM. As a current employee of OPM I serve as the Director of Classification and Assessment Policy, managing governmentwide policy in the areas of position classification, qualifications, competency modeling, personnel assessment and non-pay Fair Labor Standards Act policy. In this role I am responsible for conducting governmentwide occupational studies using evidence-based approaches. I have notified my supervisor of my study and have confirmed there is no conflict of interest performing my study.

## Summary

In summary, Chapter 3 included a description of the research design, method, and overall rationale for the study. As part of the methodology section, I described the population, data source, variables, RQs, and hypotheses for this study. I also discussed the data analysis plan, threats to validity, ethical procedures, and protection of data. The methodology and other information related to the procedures for this study may be used as a roadmap for future research. Chapter 4 will include the research findings, study results, and explanation of how the results relate to the RQs and hypotheses while Chapter 5 will provide a summary of the study and conclusions. The dissertation will conclude with a summary of the findings and the implications and limitations of the study as well as future research. The references and appendices for the study are concluded at the end of the study. A governmentwide talent management strategy is needed to ensure Federal agencies have the right talent to meet the needs of the American people. This will require exploring generational work values to manage a multigenerational workforce and to retain talent governmentwide.

## Chapter 4: Results

## Introduction

The purpose of this quantitative research study was to explore the perceptions of multiple generations (baby boomers, Generation X, and millennials) working together in the federal government. In this study, I compared generational cohort differences based on employee job satisfaction, motivation, empowerment, and turnover intention. The goal of this study was to challenge the perceptions that generational cohort differences alone impact multiple generational employees job satisfaction, motivation, and turnover intention in the federal government. Multiple theoretical frameworks including generational cohort theory (Ingelhart, 1977; Strauss \& Howe, 1991), Herzberg's twofactor theory of motivation (1966, 1974), job characteristics theory (Hackman \& Oldman, 1975), and PSM theory (Perry \& Wise, 1990) were used to explain generational cohorts' experiences, including job satisfaction, motivation, and turnover intention as measured by the FEVS. The addition of other theoretical frameworks provided other factors to consider that may influence the perceptions of generational cohorts in the federal government besides age alone. Data from the FEVS (2015) were used to explore the perceptions of generational cohorts (baby boomers, Generation X, and millennials) in the workplace.

The OPM data collection process for the FEVS (2015a, 2015b) was outlined in Chapter 3. In this Chapter, I will provide an overview of the dataset downloaded from OPM's website, the data preparation, and data analysis process. This chapter will also include the RQs and hypotheses, a discussion of the data screening process, the statistical
assumptions of each statistical test, and the statistical analyses used to test each RQ. The chapter will end with an overview and a summary of the findings. The original RQs and hypotheses are provided below.

## RQs and Hypotheses

This research addressed the values of multiple generations in the federal workplace. The overarching RQs for this study were as follows:

RQ1: To what extent do generational cohorts differ in turnover intention while controlling for job satisfaction and motivation?
$H_{0}$ : There is no significant difference in generational cohorts after controlling for job satisfaction and motivation.
$H_{1} 1$ : There is a significant difference in generational cohorts after controlling for job satisfaction and motivation.

RQ2: Are there differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS?
$H_{0}$ : There are no statistical differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS.
$H_{1}$ 2: There are statistical differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS.

RQ3: Are there differences across generational cohorts' perceptions of motivation as measured by the FEVS?
$H_{0} 3$ : There are no statistical differences across generational cohorts' perceptions of motivation as measured by the FEVS.
$H_{1} 3$ : There are statistical differences across generational cohorts' perceptions of motivation as measured by the FEVS.

## Data Collection

Secondary survey data from the FEVS collected by OPM in 2015 was used for this study. The data collection for the 2015 FEVS began on April 27, 2015, and June 12, 2015, in two waves over a 6-week administration period. The analysis included a random sample of all federal employees who responded to the FEVS in 2015, which totaled 421,748 federal employees at various federal agencies for a response rate of $49.74 \%$ (OPM, 2015a). The responses to the FEVS were found in the data file on OPM's website (OPM, 2015). In Chapter 3 and Appendix A, I provided an overview of the items for each variable used for this study.

I downloaded the public file for the 2015 FEVS in a .ZIP file from OPM's website. The public file included a code book with detailed information about the data and fields included in the data set, a SPSS syntax file to upload the data into SPSS, and a read-me document summarizing the data and information included in the zipped file. A copy of the documents was saved on my hard drive and are protected by a password. The 2015 dataset generational cohorts were represented by four generational categories. The categories included (A) under 40, (B) 40 to 49 years old, (C) 50 to 59 years old, and (D) 60 years and older. The OPM 2015 data set included four groupings of generational cohorts. The generational Age Groupings B and C included an overlap of generational cohorts. The dataset was presorted based on generational cohort by OPM. Therefore, regrouping the generational cohort categories was not an option. As a result, this study
includes four generational groupings. The first generational grouping or Group A represents millennials or Generation Y. The second two generational groupings (i.e., Groups B and C represent Generation X, and the last generational grouping or Group D represents the baby boomers' generational cohort. The generational cohorts were recoded $1,2,3$, and 4 based on original order. The turnover intention or leaving variable was recoded from $\mathrm{A}(\mathrm{No}), \mathrm{B}$ (Yes, to take another job within the federal government), C (Yes, to take another job outside the federal government), and D (Yes, other) to 1, 2, 3, and 4 (Appendix G). Based on the priori power analysis I conducted using $\mathrm{G}^{*}$ Power to determine the minimum sample size for this study, I randomly selected 230 cases for each of the generational cohorts above. I organized the data in Excel and uploaded it in SPSS. In the variable view, I changed the labels of the items (Appendix H). I renamed the motivation items to Motivation $1(\mathrm{Q} 3)$, Motivation $2(\mathrm{Q} 4)$, Motivation 3 (Q6), Motivation 4 (Q11), and Motivation $5(\mathrm{Q} 12)$. I renamed the empowerment item to Empowerment (Q30). I renamed the job satisfaction items to J.S. 1 (Q69) and J.S.2. (Q71).

I performed a chi-square $X^{2}$ for RQ1 and ANOVAs for RQs 2 and 3. Each test requires meeting specific criteria. The first step for conducting a chi-square $X^{2}$ is reviewing the data to make sure the data can be analyzed using this test. The chi-square $X^{2}$ has three assumptions to consider (Laerd Statistics, 2023). The three assumptions include the following: (a) the existence of two categorical variables or a nominal variable or an ordinal variable, (b) the independence of observations or no relationship between observations based on groups of the categorical variables or between groups, and (c) all cells must include counts greater than five (Laerd Statistics, 2023). The independent
variable generational cohort was ordinal, and the dependent variable turnover intention was nominal. The other dependent variables, motivation, job satisfaction, and empowerment, were ordinal or continuous variables as well. There was independence of observations, and all cells included counts greater than five.

The six assumptions that must be met for performing a one-way ANOVA include the following: (a) one dependent variable measured at the continuous level, (b) one independent variable that includes two or more categorical, independent groups, (c) the existence of independence of observations or no relationships between observations of groups, (d) no signification outliers, (e) dependent variable normally distributed for each group of the independent variable, and (f) homogeneity of variances or the variance is equal in each group of the independent variable (Laerd Statistics, 2023). The covariates measured for RQ1, motivation including empowerment and job satisfaction, both were measured by OPM using a 5-point Likert scale. I transformed the Likert scale into a composite score for both dependent variables to create continuous data. The independent variable generational cohort includes more than one independent group. There is the existence of independence of observations and nonsignificant outliers. The dependent variable is normally distributed, and the variance is equal in each of the independent variables. Next, I describe a breakdown of the data for each RQ.

## Results

The descriptive statistics of the sample for RQ1 were examined. The unit of analysis was turnover intention for generational cohort groups. The data consisted of 230 units for each generational cohort group. When considering to what extent generational
cohorts differ in turnover intention while controlling for job satisfaction and motivation, the descriptive statistics demonstrated for the overall turnover intention that most of the federal employees were not planning to leave (66.2\%). The response was not limited to one generational cohort. Only $5.1 \%$ reported their intent to leave the federal government to take a job outside the federal government, and $12.7 \%$ reported their intent to leave the federal government for various reasons, such as retirement or relocation. I conducted a chi-square $X^{2}$ to test for the association between generational cohort and turnover intention while controlling for job satisfaction and motivation. Table 3 shows the turnover intention breakdown while controlling for job satisfaction and motivation. Table 4 includes the variable means, standard deviation, skewness, and kurtosis.

Table 3
Turnover Intention Breakdown

| Are you considering leaving <br> your organization within the next <br> year and if so, why? | $N$ | $\%$ |
| :--- | :---: | :---: |
| No | 609 | $66.2 \%$ |
| Yes, to take another job within | 147 | $16.0 \%$ |
| the Federal Government | 47 | $5.1 \%$ |
| Yes, to take another job outside | 117 | $12.7 \%$ |
| the Federal Government | 920 | $100 \%$ |
| Yes, other (e.g., retirement, |  |  |
| relocating) |  |  |
| Total |  |  |

## Table 4

Variables, Means, Standard Deviations, Skewness, and Kurtosis

| Variables | Mean | Standard deviation | Skewness | Kurtosis |
| :---: | :---: | :---: | :---: | :---: |
| Motivation ( $N=920$ ) |  |  |  |  |
| Q3 I feel encouraged to come up | 3.45 | 1.216 | - . 516 | -. 742 |
| with new and better ways of doing |  |  |  |  |
| things. |  |  |  |  |
| Q4 My work gives me a feeling of | 3.84 | 1.121 | - . 994 | . 327 |
| personal a ccomplishment. |  |  |  |  |
| Q6 I know what is expected of me | 3.92 | 1.029 | -1.084 | . 745 |
| on this job. |  |  |  |  |
| Q11 My talents are used well in the | 3.36 | 1.191 | - . 543 | -. 656 |
| workplace. |  |  |  |  |
| Q12 I know how my work relates to | 4.03 | . 913 | -1.210 | 1.681 |
| the agency's goals and priorities. |  |  |  |  |
| Job Satisfaction ( $N=920$ ) |  |  |  |  |
| Q69 Considering everything, how | 3.65 | 1.113 | -. 807 | -. 041 |
| satisfied are you with your job? |  |  |  |  |
| Q71 Considering everything, how |  |  |  |  |
| satisfied are you with your | 3.41 | 1.160 | -. 544 | -. 568 |
| organization? |  |  |  |  |
| Empowerment ( $N=920$ ) |  |  |  |  |
| Q30 Employees have a feeling of | 3.05 | 1.178 | -. 224 | -. 928 |
| personal empowerment with respect |  |  |  |  |
| to work processes. |  |  |  |  |

Examining the results based on generational cohort by turnover intention, all generational groups were represented in reporting no turnover intention. Federal employees ages 50 to 59 years of age were slightly higher, with 40 to 49 years old next in reporting no intent to leave. Both generational groups encompassed Generation X. The lowest reported category included responses by federal employees stating an intention to take a job outside of the federal government with 40 to 49 years old, slightly close to federal employees 60 years or older reporting an intent to take another job outside of the federal government. These results indicated Generation X and baby boomers had higher turnover intention than Generation Y or federal employees 40 and younger. Federal employees ages 60 and older were the highest in the category reporting their intent to leave to retire or relocate, which may be interpreted as employees planning to retire and relocating to another area due to their retirement.

## RQ1

A chi-square $X^{2}$ was used to examine the associations between generational cohorts and turnover intention while controlling for job satisfaction and motivation. The stages of analysis for RQ1 included performing descriptive statistics for turnover intention by generational cohort. Generational cohorts was an ordinal variable, and turnover intention was a nominal variable (both variables are categorical). To do the descriptive statistics for categorical data, I first determined the central tendency through median and mode, then I checked the variability in the dataset by determining the minimum and maximum for turnover by generational cohort. The next step included
hypothesis testing to see if there was a significant association between generational cohort and turnover intention. I conducted a chi-square $X^{2}$ that included generational cohort as the independent variable and turnover intention as the dependent variable. The covariates were job satisfaction and motivation. The results demonstrated whether the associations between generational cohort and turnover intention were more statistically significant among the generational cohorts.

Cramer's $V$ test is recommended when the crosstabulation variable has more than two categories to test variable independence (Miller, 2016). The Cramer $V$ value must be between 0 and 1 , with 0 indicating no association and 1 indicating complete association (Moore et al., 2013 as cited in Bennett, 2018). The findings for RQ1 provided mixed results. RQ1 compared generational cohorts' turnover intention while controlling job satisfaction and motivation. I ran the analysis without controlling for the covariates. The results were $X^{2}(n=920,=85.7, p=.001$, phi $=.31)$ or a moderate statistical significance between generational cohorts and turnover intention. Based on this result, the null hypothesis of no correlation was rejected. The crosstab analysis revealed additional insights based on the breakdown of responses while controlling for job satisfaction and motivation. All expected cell frequencies were greater than five. Table 5 includes the overall chi-square $X^{2}$ for generational cohort and turnover intention.

## Table 5

Chi-Square $X^{2}$ Generational Cohort and Turnover Intention ( $N=920$ )

| Covariates | $X^{2}$ value | $D f$ | $p$-value | Cramer's $V$ |
| :--- | :--- | :--- | :--- | :--- |


| Generational cohort and <br> turnover intention | 85.7 | 9 |  | .001 |
| :--- | :--- | :--- | :--- | :--- |

Based on the results of a chi-square $X^{2}$ presented in the tables below, for generational cohorts and turnover intention while controlling for job satisfaction, Tables 6,7 , and 8 below shows that there was a significant association between job satisfaction overall $(\chi(1)=85.71, \mathrm{p}=<.001, \mathrm{phi}=.176)$ and Federal employees who were neither satisfied or dissatisfied $(\chi(1)=44.936, \mathrm{p}=<.001, \mathrm{phi}=.258)$, satisfied $(\chi(1)=46.830, \mathrm{p}$ $=<.001$, phi $=.207$ ), and very satisfied $(\chi(1)=28.222, \mathrm{p}=<.001, .272)$. The Federal employees with higher job satisfaction reported less turnover intention. This result supported the increase of job satisfaction decreasing the existence of turnover intention, which also was found in other research studies and supported theoretically.

## Table 6

Chi-Square $X^{2}$ Job Satisfaction Neither Satisfied Nor Dissatisfied Overall Results 99-100 ( $N=225$ )

| Job satisfaction overall | $X^{2}$ value | $D f$ | $p$-value | Cramer's $V$ |
| :--- | :---: | :---: | :---: | :---: |
| Neither satisfied nor <br> dissatisfied | 44.936 | 9 | $<.001$ | .258 |

Table 7
Chi-Square $X^{2}$ Job Satisfaction Satisfied Overall Results ( $N=336$ )

| Job satisfaction overall | $X^{2}$ value | $D f$ | $p$-value | Cramer's $V$ |
| :--- | :---: | :---: | :---: | :---: |
| Satisfied | 46.830 | 9 | $<.001$ | .207 |

Table 8
Chi-Square $X^{2}$ Job Satisfaction Very Satisfied Overall Results $(N=127)$

| Job satisfaction overall | $X^{2}$ value | $D f$ | $p$-value | Cramer's $V$ |
| :--- | :---: | :---: | :---: | :---: |
| Very satisfied | 28.222 | 9 | $<.001$ | .272 |

The results of a chi-square $X^{2}$ presented below in Tables 9 and 10, for generational cohorts and turnover intention while controlling for motivation, also revealed that there was a significant association between motivation overall $(\chi(1)=$ 85.714, $\mathrm{p}=<.001, \mathrm{phi}=.176)$ and Federal employees who reported they agree $(\chi(1)=$ 66.151, $\mathrm{p}=<.001, \mathrm{phi}=.219)$, and strongly agree $(\chi(1)=40.920, \mathrm{p}=<.001, \mathrm{phi}=.176)$. The results indicated that when controlling motivation there was less turnover intention. This aligns with the past research findings as well. Both job satisfaction and motivation decrease turnover intention.

## Table 9

Chi-Square $X^{2}$ Motivation Agree Overall Results $(N=459)$

| Motivation overall | $X^{2}$ value | $D f$ | $p$-value | Cramer's $V$ |
| :--- | :---: | :---: | :---: | :---: |
| Agree | 66.15 | 9 | $<.001$ | .219 |

## Table 10

Chi-Square $X^{2}$ Motivation Strongly Agree Overall Results ( $N=200$ )

| Motivation overall | $X^{2}$ value | $D f$ | $p$-value | Cramer's $V$ |
| :--- | :---: | :---: | :---: | :--- |
| Strongly agree | 40.92 | 9 | $<.001$ | .176 |

## RQ2 and RQ3

A one-way ANOVA was used to analyze RQs 2 and 3. For RQ2 the ANOVA will help decipher if job satisfaction differed by generational cohort and for RQ3 the ANOVA will explore any differences in motivation by generational cohort. Descriptive statistics was conducted for generational cohort, an ordinal variable, by determining the central tendency through median and mode and the variability in the dataset by determining the minimum and maximum for generational cohort. For job satisfaction and motivation, I determined the central tendency through mean and the variability through skewness and kurtosis for the job satisfaction, motivation, and empowerment survey items. In addition, I included the mean and standard deviation for RQs 2 and 3 for each generational cohort (see Table 11). The result of this analysis will reflect how the generational cohorts expressed their perceived job satisfaction and motivation.

The next step included conducting hypothesis testing for the purpose of checking if there was a statistically significant difference across generational cohorts' perceptions of job satisfaction. A one-way ANOVA test was conducted with generational cohort as my independent variable and the perception of job satisfaction as the dependent variable. The result of this analysis will provide if there are statistically significant differences between generational cohorts' perception of job satisfaction.

Table 11

Generational Cohort Groupings Means and Standard Deviations

| RQ | Grouping 1 | Grouping 2 | Grouping 3 | Grouping 4 |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| RQ2 | $X=3.36, \mathrm{SD}=$ | $X=3.32, \mathrm{SD}=$ | $X=3.44, \mathrm{SD}=$ | $X=3.39, \mathrm{SD}=$ |
|  | 1.091 | 1.178 | 1.127 | 1.095 |
| RQ3 | $X=3.75, S D=$ | $X=3.67, \mathrm{SD}=$ | $X=3.87, \mathrm{SD}=$ | $X=3.79, \mathrm{SD}=$ |
|  | 1.021 | 1.068 | .919 | .999 |

The descriptive statistics for RQ2 and RQ3 will be discussed next. The descriptive statistics for RQ2 when considering if there were any differences between generational cohorts' perceptions as a result of their job satisfaction as measured by the FEVS the third generational grouping ages 50-59 years old ( $M=3.44, S D=1.127$ ) were higher than the other three groupings. The second generational grouping ages 40-49 years old $(M=3.32, S D=1.178)$ was higher than the first 40 and younger $(M=3.36, S D=$ $1.091)$ and fourth 60 years and older $(M=3.39, S D=1.1095)$ generational groupings. There is an indication that Generation X reported higher job satisfaction. The results of the one-way ANOVA for question 2 is $\mathrm{F}(3,916)=.522, \mathrm{p}=.667)$. If the F statistic for a one-way ANOVA with a sample size of 920 is .522 and the associated p-value is 0.667 , then I fail to reject the null hypothesis. There is not enough evidence to support the alternative hypothesis. The data does not provide sufficient evidence to conclude that there is a significant difference between the groups being compared.

The descriptive statistics for RQ3 when considering if there were any differences between generational cohorts' perceptions as a result of their motivation as measured by the FEVS the third generational grouping ages $50-59$ years old $(M=3.87, S D=.919)$ were higher than the other three groupings. The fourth generational grouping 60 years and older $(M=3.79, S D=.999)$ is higher than the first grouping 40 years and younger $(M$ $=3.75, S D=1.021)$ and second $40-49$ years old $(M=3.67, S D=1.021)$ generational groupings. There is an indication that Generation X reported higher motivation. The results of the one-way ANOVA for question 3 is $\mathrm{F}(3,916)=1.705, \mathrm{p}=.164)$. If the F statistic for a one-way ANOV A with a sample size of 920 is 1.705 and the associated pvalue is 0.164 , then at a significance level of 0.05 , we fail to reject the null hypothesis and conclude that there is no significant difference between the means of the groups being compared. To be more specific, the null hypothesis in a one-way ANOVA is that there is no significant difference between the means of the groups being compared. A pvalue of 0.164 indicates that there is not enough evidence to reject the null hypothesis at a significance level of 0.05 . Therefore, we cannot assume the differences between the means are due to chance and to due to a genuine effect. There is no statistical significance based on motivation by generational cohort.

## Summary

Chapter 4 included the results and the analysis of the statistical tests used to assess the three RQs for this study. The RQs for this study asked if there were differences in generational cohorts' job satisfaction, motivation, empowerment, and turnover intention in the federal government. The study included secondary survey data for 920
multigenerational federal employees who responded to the 2015 FEVS. The results demonstrated that generational cohort alone did not influence turnover intention and that other factors or variables, e.g., job satisfaction and motivation did impact turnover intention. Chapter 5 includes a summary of the purpose of the study followed by a detailed discussion and interpretation of the findings. The chapter will conclude with limitations, recommendations, implications, and a conclusion to the study.

## Chapter 5: Discussion, Conclusions, and Recommendations

## Introduction

The purpose of this quantitative research study was to explore the perceptions of multiple generations working together in the federal government based on their job satisfaction, motivation, and turnover intention. I used secondary data from the 2015 FEVS to analyze the relationships between the independent variable (i.e., generational cohort) and the dependent variables (i.e., job satisfaction, motivation, empowerment, and turnover intention). Previous studies have focused on generational cohort theory alone for explaining generational differences. However, there is limited research in the federal government on generational differences, and the research that exists predominately included one federal agency. Thus, this study comprised a governmentwide perspective leveraging multiple alternative theoretical explanations for generational cohort differences, including motivation, empowerment, and job satisfaction and how each of these variables impacted generational cohorts' turnover intention.

## Interpretation of the Findings

In this section, I compare the findings of this study to the literature presented in Chapter 2. As previously stated, generational cohort theory posits that a generation is a social construction in which individuals born during a similar time period are influenced by historic and social contexts in such a way that these experiences differentiate one generational cohort from another (Jurkiewicz \& Brown, 1998; Sessa et al, 2007). However, this theory alone does not explain the other factors associated with generational differences. There exist well-established literature dealing with individual differences in
the workplace that purports multiple variables (e.g., job satisfaction, motivation, and other variables) impact generational differences in the workplace (Costanza \& Finkelstein, 2015). In this study, I examined other variables, including job satisfaction, motivation, and empowerment's impact on turnover intention, which may reflect individual differences as well as aspects of each of the generational cohort's work values.

This study helped fill the void for the need for research that would further generational cohort theory and establish if individuals belonging to the same generational cohort do impact work values, work ethic, and other key attributes assigned to each generational cohort (see Jones et al., 2018). I tested whether preconceived generational stereotypes were supported by generational cohort theory. Also, I explored if other factors besides age contribute to generational differences, such as job satisfaction, work motivation, and empowerment impacted turnover intention. As stated previously, most federal employees are drawn to work in the federal government by PSM. The existence of numerous factors associated with a multigenerational workforce may also be explained by using different theoretical frameworks, such as PSM (Perry \& Wise, 1990), job characteristics theory (Hackman \& Oldman, 1975), and Herzberg's two-factor theory of motivation (1966, 1974). Next, I examine each variable and the theoretical framework for this study based on the findings.

## Job Satisfaction

In accordance with previous research (Saeed et al., 2014), the findings of this study supported job satisfaction reducing turnover intention among employees. Saeed et al. (2014) found that employees satisfied with their job had lower turnover intentions.

Saeed et al. also found that job satisfaction improved key drivers like communication from management, which decreased turnover intention. The results of this study strongly supported job satisfaction and motivation's impact on lowering turnover intention. Missildine (2021) examined the impact of job satisfaction on employee turnover intent including gender in the federal government using FEVS data from 2017 using a quantitative methodology. According to Missildine's study, gender and turnover intention were independent of each other, but the study supported that job satisfaction significantly effected intention to leave. Therefore, the Missildine study suggested that job satisfaction is a significant predictor of turnover, and employers should target characteristics of job satisfaction in addressing employees' turnover intention.

Employee motivation aligned with organizational goals has contributed to a better chance of achieving job satisfaction (Le Grand \& Roberts, 2018). Some researchers have indicated that younger employees have higher levels of job satisfaction (Herzberg et al., 1957) while other researchers (Bernal et al., 1998; Hulin \& Smith, 1965; Lee \& Wilbur, 1985) indicated that satisfaction increases with age. Contrarily, employees' job satisfaction has been found to decrease just before retirement (Saleh \& Otis, 1964). Ertas's (2015) study using FEVS 2011 data did not find a difference between millennials and other generational cohorts' job or pay satisfaction. Herzberg's motivation theory purports that the interplay between job satisfaction and motivation decreases employee's turnover. The findings of this study were supported by this theoretical framework.

## Motivation

In the current study, I sought to identify the underlying tenets of motivation, including empowerment for federal employees along with job satisfaction and turnover intention in correlation with respondents' generational cohorts. A specific motivational theory related to the workplace is job characteristics theory (Hackman \& Oldman, 1975), which focuses on an employee's perception about the extent to which their jobs offer them social support, autonomy, feedback, task significance, and task interdependence (Humphrey et al., 2007). Research has shown that individuals with higher PSM values are more likely to work for the government (Perry et al., 2010). PSM has been associated with higher organizational commitment and lower turnover in public service (Crewson, 1997). In this study, I found that federal employees with high motivation had lower turnover intention.

## Empowerment

Bowen and Lawler (1992) defined empowerment as a multidimensional managerial approach composed of providing performance-based rewards, access to jobrelated skills and knowledge, the discretion to change work-related processes, and information about performance and goals (as cited in Fernandez \& Moldogaziev, 2013a). Fernandez and Moldogaziev's (2011, 2013a, 2013b) previous research confirmed that employee empowerment positively affects job satisfaction. My study supported previous research, finding a positive effect of employee empowerment on job satisfaction, but also varying effects of different individual empowerment practices based on the satisfaction of
the need for competence and autonomy (see Fernandez \& Moldogaziev, 2013b). As previously stated, overall motivation impacted turnover intention.

## Turnover Intention

The influence of job satisfaction and PSM including turnover intention was explored for this study as well. Ertas (2015) studied the turnover intentions and work motivation of millennials in federal service using 2011 FEVS data. The study compared the turnover intentions of millennials and other age groups already in public service (Ertas, 2015). Millennials were found to be more likely than other generational cohorts, that is, traditionalists, baby boomers, and Generation X , to report an intention to leave their jobs (Ertas, 2015). Another theory connected with higher job satisfaction and lower turnover intentions is job characteristics theory (Hackman \& Oldman, 1975). In this study, I found that both motivation and job satisfaction moderated generational cohorts' turnover intentions. However, there were no statistically significant findings based on generational cohort alone as it pertained to age and turnover intention that emerged as a result of this study. In fact, most federal employees included in this study did not report turnover intention. Also, more baby boomers and Generation Xers reported their intent to leave for employment outside of the federal government than millennials.

It is also important to note that the original approach for this study was to include three generational cohorts: baby boomers, Generation X, and millennials. The OPM dataset included four generational groupings - 40 and under, 40 to 49,50 to 59 , and 60 and older. However, OPM suppressed age groups to protect the privacy of federal
employees. As a result, there were four generational groupings for this study. Next, I discuss the findings for each $R Q$.

## RQ1

RQ1 was as follows: To what extent do generational cohorts differ in turnover intention while controlling job satisfaction and motivation?

Findings for RQ1 supported rejecting the null hypothesis of no correlation for generational cohorts' differences in turnover intention while controlling for job satisfaction and turnover intention. Previous studies supported these findings (Ertas, 2015). In this study, I found that job satisfaction and motivation impacted turnover intention for all generational cohorts. I found Generation X and baby boomers had higher turnover intention than Generation Y or federal employees 40 and younger. This finding is different from what is typically expected given that most studies anticipate that younger employees will have higher levels of turnover intention resulting in actual turnover. In other studies, millennials were found to be more likely than other generational cohorts, that is traditionalists, baby boomers, and Generation X , to report an intention to leave their jobs (Ertas, 2015). Contrarily, past studies have found more than age alone as factors that impact generational differences in the workplace (Costanza \& Finkelstein, 2015). When considering to what extent generational cohorts differ in turnover intention while controlling for job satisfaction and motivation, the descriptive statistics illustrated for the overall turnover intention that most federal employees were not planning to leave (66.2\%). The response was not limited to one generational cohort. My findings illustrated that employees with high job satisfaction and motivation reported
less turnover intention across all generational cohorts. These findings were also supported by Herzberg's motivation theory. Less turnover intention in this study was predicated by higher motivation or the presence of motivators instead of dissatisfiers (see Herzberg 1966, 1974). In addition, Saeed et al. (2014) found that employees satisfied with their job and the support they received from their job had lower turnover intentions. For instance, research on special education teachers revealed that teachers with higher levels of autonomy were most likely to report satisfaction and lower rates of attrition (WarnerGriffin et al., 2018). The findings failed to support that age alone impacts job satisfaction, motivation, and turnover intention. Other studies (Han \& Jekel, 2011; Ng \& Feldman, 2010) also found that age alone did not impact turnover intention.

Miller's (2018) study included the relationship between employee engagement and turnover intention to answer the $R \mathrm{Q}$ if veterans were more engaged than other federal employees. H3 of Miller's study posited that age would positively moderate the relationship between employee engagement and turnover intention (see Hayes, 2013; Preacher et al., 2007). Miller found a correlation between the coefficient of age (.22285922) and in the odds of turnover intentions. The higher the age, the higher the probability of turnover intention (Bertelli, 2006; Field, 2009; Pitts et al., 2011). The results of this study support the results of my study and help explain why those who did report leaving were mostly in the over 60 years and older group as they were most likely leaving to retire or to relocate.

## RQ2

RQ2 was as follows: Are there differences across generational cohorts' perceptions of job satisfaction as measured by the FEVS?

Missildine (2021) examined the impact of job satisfaction on employee turnover intent in the federal government using FEVS data from 2017. Missildine's study like Abouraia \& Othman's (2017) study found an association between job satisfaction and turnover intention. Therefore, the study suggests that job satisfaction is a significant predictor of turnover, and employers should target characteristics of job satisfaction in addressing employees' turnover intention. Both studies supported my findings that job satisfaction effected intention to leave.

Jobs satisfaction through comprehensive research has been associated with job performance and identified hygiene factors that have contributed to the dissatisfaction of employees (Herzberg et al., 1959). Herzberg et al. (1957) associated age, tenure, job level, and salary as variables affecting levels of job satisfaction (as cited in De Matas, 2011). Some researchers have indicated that younger employees have higher levels of job satisfaction (Herzberg et al., 1957) while other researchers (Bernal et al., 1998; Hulin \& Smith, 1965; Lee \& Wilbur, 1985) have indicated that satisfaction increases with age. Contrarily, employees' job satisfaction has been found to decrease just before retirement (Saleh \& Otis, 1964). My study implied that as job satisfaction increased, turnover intention decreased. This was reflected by the crosstab data, including the group comparisons showing the generational cohorts A (60 and older), B (50 to 59 years of age), and C (40 to 49 years of age) reported higher levels of job satisfaction.

As previously stated, if the $F$ statistic for a one-way ANOVA with a sample size of 920 is .522 and the associated $p$-value is 0.667 greater than $\alpha=.05$, then I fail to reject the null hypothesis. There is not enough evidence to support the alternative hypothesis. The data do not provide sufficient evidence to conclude that there is a significant difference between the groups being compared. Cucina et al. (2018) conducted a two-part study on generational differences based on workplace attitudes (e.g., job satisfaction, employee engagement). In both studies, $98 \%$ of the variance in workplace attitudes was found within groups, as opposed to between groups (Cucina, 2018). Similarly, I found that within group differences were more prevalent than between groups. The larger the $F$ statistics the more likely there was a difference between the group means - Group A ( $M=$ $3.75, S D=1.021)$, Group B $(M=3.67, S D=1.068)$, Group C $(M=3.87, S D=.919)$, and Group D $(M=3.79, S D=.999)$.

Other studies found that job satisfaction influenced the turnover intention of federal employees (Llorens \& Stazky, 2011; Pitts et al., 2011). Job satisfaction is a reliable predictor of intent to leave (Fabi et al., 2015). Weaver (2015) found that employees with increased job satisfaction and loyalty were not as likely to report intent to leave and that job satisfaction had the most significant impact on employees' decisions to leave or stay. Weaver's study made various contributions to the literature on turnover intention as the finding are consistent with past research (e.g., Ababneh, 2019; Blanz, 2017; Sonnentag, 2017), suggesting that the variables of the JCM and job satisfaction are associated with employee turnover intention.

## RQ3

RQ3 was as follows: Are there differences across generational cohorts' perceptions of motivation as measured by the FEVS?

In 2020, Markee studied intrinsic motivation, employee engagement, generational cohorts, and turnover intention using FEVS data. Markee found that there was a significant difference in intrinsic motivation between millennials and nonmillennials for U.S. federal employees. There was also a positive mediating effect of motivation in my study as it relates to turnover intention.

If the $F$ statistic for the one-way ANOVA with a sample size of 920 is 1.705 , and the associated $p$-value is 0.164 , then at a significance level of 0.05 , I fail to reject the null hypothesis and conclude that there is no significant difference between the means of the groups being compared. To be more specific, the null hypothesis in a one-way ANOVA is that there is no significant difference between the means of the groups being compared. A $p$-value of 0.164 indicates that there is not enough evidence to reject the null hypothesis at a significance level of 0.05 . Therefore, I cannot assume that the differences between the means are due to chance and due to a genuine effect. There is no statistical significance based on motivation by generational cohort as well. Therefore, age alone is not a factor for determining differences between groups.

Research has solidified the constructs of motivation, job satisfaction, and turnover are linked to work values of generational cohorts (Lyons et al., 2010). Research has shown that individuals with higher PSM values or individuals motivated by public service or intrinsic rewards are more likely to work for the government (Perry et al.,
2010). Holt (2018) found that PSM plays a role in job sector selection early on in one's career, therefore, PSM is commonly attributed to government employees' motivation. Dick (2019) focused on similarities between Generation X, Y, and Z work values as the basis of employee work motivation. This study emphasized the need for employers to focus on individual differences and not solely on generational differences based on stereotypes. The results of the study proved that there are more similarities than differences (Dick, 2019) as supported by other research.

As previously stated, Federal employees are motivated by the work they performed or their satisfaction with their work. Marlowe's (2015) study using JCT to explore the motivation of information technologists in the federal government found a clear statistical preference by information technologists for motivation based on the job characteristics, feedback, and task significance. Another study using JCT to measure the work motivation of 150 schoolteachers found a significant association using a chi-square $\mathrm{X}^{2}(\mathrm{p}=<.05)$ between motivation and age (Nagrath, 2019). Kim (2015) investigated the relationship between intrinsic motivation and intent to leave and found that intrinsic motivation positively impacted employee intent to leave in the public sector.

## Limitations of the Study

This study is limited to employees in the Federal government, however, values attributed to generational cohorts may be applicable to the private sector. The generational cohorts to include in this study are based on the number of federal employees in each generational cohort. The 2015 published FEVS (OPM, 2015a) reported the Federal Workforce comprise 1\% Traditionalist (born 1945 or earlier), 49\%
baby boomers (born 1946-1964), 39\% Generation X (born 1965 - 1980), and 11\% Generation Y (born 1981 to 1996). OPM (2015a) stated the sum of percentages might be affected due to rounding. This study excluded the traditionalists and Gen Z generational cohorts given these generational cohorts had a smaller representation in the federal government than other generational cohorts or were nonexistent. This decision was based on the smaller number of traditionalists (1\%) in the federal government. The exclusion of traditionalists is also a limitation of this study.

Another limitation of the study is that the generational cohorts defined in the study included overlap with other generational cohorts. However, this is common in generational diversity studies, which gives credence to the concerns by other researchers (Constanza and Finkelstein, 2015) of the lack of clearly defined ranges of birth and that a generational cohort is not defined only by age alone.

Lastly, this study may not be completely applicable to the private sector. Although some similarities may exist between the private and public sectors of work, there are unique differences as well. Motivation in the Federal government has been attributed to PSM which differs from employee motivation in the private sector. federal employees value more intrinsic rewards compared to extrinsic motivation values attributed to private sector employees. This study evaluated federal employee motivation based on generational cohort.

## Recommendations

This study focused on generational cohort differences based on motivation, empowerment, job satisfaction, and each variable impact on turnover intention. Based on
the study findings, qualitative research is needed to provide more insights into the needs of a federal multiple generational workforce and based on these needs how leadership can effectively manage multiple generations in the federal government. Also, there is a need to include Gen $Z$ as part of the study or to conduct a more robust study focusing on Gen Z federal employees. Information is needed to understand Gen Z's motivation and attraction to Federal service. The comparison of studies over a period of time is needed as well. Studies relying on time-series data will account for the influence of age or changes as employees age over time that may occur over decades (Ertas, 2015). A study including perceptions of federal employment of job candidates may also be considered. The use of newer FEVS datasets that align with all five generational cohorts is recommended as well. OPM providing access to the full generational cohort data breakdown for newer datasets will be needed to perform this analysis. Additionally, the study can be expanded to specific occupational series and can be conducted governmentwide and in specific federal agencies to truly obtain insights on Federal employees' motivation, job satisfaction and turnover intention. Conducting analysis specific to an occupational series will provide additional insights to federal employee's motivation, job satisfaction, and turnover intention in specific occupations or newly emerging work (e.g., artificial intelligence) and generational groups. The differences between employees in different fields of work and generational cohorts was not accounted for in this study but may impact motivation in the workplace (Craun et al., 2014, Kula, 2017) as well as other factors. Other factors may be considered like findings related to the differences in supervisors' and employees' demographics (e.g., race, gender, and age) impact on
millennials job satisfaction (Campione, 2014). The expansion of this study governmentwide can inform policymaking using evidence-based data to improve the hiring and retention of a generational diverse workforce. A thorough understanding of generational cohorts' preferences related to the constructs of this study and future research can have major implications for human resources and leadership to tailor workplaces to motivate individuals from each generational cohort (Kultalahti \& Viitala, 2014).

## Social Change

The federal government should be reflective of the American people. Attracting, hiring, and retaining a diverse workforce to serve the American people will have social change implications. Mannheim referred to generations as agents of social change given their social and historical awareness in a specific period of time (Joshi et al., 2011). The services provided by the federal government meet societal needs across the lifespan. Multigenerational diversity in the federal government is needed to meet diverse societal needs. As the federal government increases diversity in the workplace this study can help influence how agencies approach improving employee job satisfaction and motivation leveraging generational diversity.

Both employee job satisfaction and motivation can provide insights for retaining federal employees from multiple generational groups as well as hiring new employees. Henstra and McGowan (2016) found that Millennials are intrinsically motivated to work in public service, for various reasons including but not limited to social change opportunities and a sense of duty. Individuals who choose to work in the federal
government genuinely have tendencies to demonstrate norm-based motivations, i.e., altruistic behaviors associated with public service as demonstrated by their loyalty and aspirations to advance policies of social equity (Henstra \& McGowan, 2016).

As most of the federal workforce are eligible for retirement or are approaching retirement age, bringing in new talent with emerging skillsets including artificial intelligence, robotics, cybersecurity, machine learning, and other areas will be imperative. The federal government will be at the forefront in these areas as well as other areas to provide vital services and hiring talent in occupations such as pilots, nurses, law enforcement and other critical shortage areas. Therefore, understanding how to attract and retain millennials, Gen Y, and other generations (i.e., Gen alpha) will be imperative for HR and leadership governmentwide. Also, understanding how factors can change generational cohorts or individuals' intent to leave perceptions over time is critical as well.

The findings of this study can help to shape future policymaking using evidenced based data. The social implications include policymaking that meet the needs of the American people. This includes hiring and retaining federal employees with the skillsets needed to perform work to meet agencies missions and to provide services to the American people. From finding cures for diseases, to fighting wildland fires and providing emergency services in times of natural disasters, the Federal government is pivotal to society as a whole. This study will help to improve the use of data to garner insights into improving retention and managing a multigenerational workforce from a perspective of diversity and specific to agency mission critical occupational needs.

## Implications

The implications of this study include gaining a better understanding of generational cohorts in the federal government. The study results can be used to inform human capital policies impacting the workforce including hiring and retaining talent. Specifically attracting early career talent to develop the next generation of public servants committed to meeting the needs of the American people and that resemble demographically all facets of society.

## Conclusion

In conclusion, the provided evidence supported the hypothesis that more than generational cohort theory attribute to generational differences in the workplace as it pertains to the job satisfaction, motivation, and empowerment of federal employees and how these variables influence turnover intention of federal employees. The study results found that federal employees with higher levels of job satisfaction and motivation reported lower turnover intention regardless of age. Furthermore, the study results were not significant based on generational cohort differences as it relates to age by generation. The findings supported the work values attributed to federal employees including intrinsic motivation as well as PSM.

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Appendix A: Survey Items

## Job Satisfaction -

Q69 - Considering everything, how satisfied are you with your job? (Job
Satisfaction)
Q71 - Considering everything, how satisfied are you with your organization?

## Motivation -

Intrinsic Work Experience: Reflects the employees' feelings of motivation and competency relating to their roles in the workplace.

Q3 - I feel encouraged to come up with new and better ways of doing things.
Q4 - My work gives me a feeling of personal accomplishment.
Q6 - I know what is expected of me on this job.
Q11 - My talents are used well in the workplace.
Q12 - I know how my work relates to the agency's goals and priorities.

## Empowerment - (Empowerment is a FEVS motivation item)

Q30 - Employees have a feeling of personal empowerment with respect to work processes.

## Intention to Leave - Demographical Question.

Q94 - "Are you considering leaving your organization within the next year, and if so, why" was used to determine intention to leave.

R1 - Yes, to retire.

R2 - Yes, to take another job within the Federal Government
R3 - Yes, to take another job outside the Federal Government

R4 - Yes, other.

Appendix B: OPM Federal Employee Viewpoint Survey Data Files 2015

(Source: U.S. Office of Personnel Management, 2015c)

## Appendix C: Published Articles Using FEVS Data (2006 to 2014)

| Article | Key Constructs | Measurement: Main Independent Variable | Measurement: Dependent Variable | Modeling | Data Sources |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bertelli (2006) | Motivation | Admin. data | Scale(s) | OLS | One |
| Bertelif (2007) | Motivation | Survey item(s) and scale(s) | Survey item(s) | Probit | One |
| Caillier (2012a) | Whistle-blowing | Survey item(s) | Scale(s) | OLM | One |
| Caillier (2012b) | Teleworking, satisfaction, commitment, job involvement | Scale(s) | Scale(s) | GLM | One |
| Caillier (2013a) | Teleworking, turnover intention | Scale(s) | Scale(s) | Logit | One |
| Caillier (2013b) | Work-life programs, commitment, job involvement | Scale(s) | Scale(s) | OLM | One |
| Cho and Perry (2012) | Motivation | Scale(s) | Scale(s) | ots/logit | One |
| Cho and Ringquist (2011) | Trust, performance | Scale(s) | Survey item(s) and scale(s) | HLM | Multiple |
| Cho and Sai (2012) | Procedural fairness | Scale(s) | Scale(s) | HLM | Multiple |
| Choi (2009) | Diversity, turnover | Survey item(s) and scale(s) | Scale(s) | HLM | Multiple |
| Choi (2013) | Diversity, job satisfaction | Admin. data | Scale(s) | MLM | Multiple |
| Choi and Rainey (2010) | Diversity, performance | Admin. data | Scale(s) | HLM | Multiple |
| Choi and Rainey (2014) | Procedural fairness | Scale(s) | Survey item(s) and scale(s) | HLM | One |
| Fernandez (2008) | Leadership, job satisfaction | Scale(s) | Survey item(s) | OPM | One |
| Fernandez, Cho, and Perry (2010) | Leadership | Survey item(s) and scale(s) | Scale(s) | OLS | Multiple |
| Fernandez and Moldogaziev (2011) | Empowerment | Survey item(s) and scale(s) | Survey item(s) | MNLM | One |
| Fernandez and Moldogaziev (2013a) | Empowerment | Scale(s) | Scale(s) | SEM | One |
| Fernandez and Moldogaziev (2013b) | Empowerment | Scale(s) | Survey item(s) | MNLM | One |
| Fernandez and Moldogaziev (2013c) | Empowerment | Survey item(s) and scale(s) | Survey item(s) | MNLM | One |
| Fernandez and Pitts (2011) | Innovation | Survey item(s) | Survey item(s) | OPM/OLS | One |
| Jung (2010) | Turnover, pay satisfaction, diversity management | Survey item(s) and scale(s) | Admin. data | OLS | Multiple |
| Jung and Lee (2012) | Performance | Scale(s) | Survey item(s) | MNLM | One |
| Kellis and Ran (2013) | Leadership | Scale(s) | Scale(s) | OLS | One |
| Kim and Schachter (2013) | Leadership, performance | Scale(s) | Scale(s) | HLM | Multiple |
| Kim and Wiggins (2011) | Human resource management | Survey item(s) | Survey item(s) | Logit | One |
| Lee, Cayer, and Lan (2006) | Leadership, empowerment, teamwork, fairness, job satisfaction, effectiveness | Survey item(s) and scale(s) | Survey item(s) and scale(s) | OLS | Multiple |
| Lee and Cho (2011) | Organizational fit | Survey item(s) and scale(s) | Scale(s) | ols | Multiple |
| Lee and Hong (2011) | Pay satisfaction | Survey item(s) | Survey item(s) | OLS | Multiple |
| Lee and Whitford (2008) | Turnover, organizational satisfaction, voice, loyalty | Survey item(s) and scale(s) | Survey item(s) | Logit | One |
| Oberfield (2014a) | Diversity management, performance | Scale(s) | Survey item | OLS | One |
| Oberfield (2014b) | Leadership, performance | Scale(s) | Survey item | OLS | One |
| Oh and Lewis (2008) | Leadership | Admin. data | Scale(s) | OLS | Multiple |
| Park (2012) | Leadership, motivation | Scale(s) | Scale(s) | HLM | Multiple |
| Pitts (2009) | Diversity management, job satisfaction, performance | Factor score | Survey item(s) and scale(s) | OLS/probit | One |
| Pitts, Marvel, and Fernandez (2011) | Job satisfaction, turnover | Survey item(s) and scale(s) | Survey item(s) | Logit | One |
| Rubin (2009) | Procedural justice, trust, job satisfaction, turnover | Survey item(s) and scale(s) | Survey item(s) | Probit | One |
| Sabharwal (2013) | Satisfaction, empowerment, organizational justice | Survey item(s) and scale(s) | Survey item(s) | Logit | One |
| Trottier, Van Wart, and Wang (2008) | Leadership | Scale(s) | Survey scale(s) | OLS | One |
| Whitford et al. (2010) | Collaboration, performance | Survey item(s) and scale(s) | Survey item(s) | SLM | One |
| Wynen, Op de Beeck, and Hondeghem (2013) | Mobility | Survey item(s) | Survey item(s) | Probit | One |
| Yang (2011) | Performance | Scale(s) | Survey item(s) scale(s) | - | Multiple |
| Yang and Kassekert (2010) | Job satisfaction | Admin. data | Survey scale(s) | HLM | Multiple |

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(Source: Fernandez et al., 2015)

## Appendix D: FEVS

Large scale surveys have been used for more than a decade by government officials to gauge employee's perceptions and work attitudes about their satisfaction with their jobs, working conditions, organizational policies, coworkers, leadership, and performance (Fernandez et al., 2015). The precursor to the FEVS was the Federal Employee Attitudes Survey (FEAS) of 1979-80 developed as part of the Civil Reform Act of 1978 to gauge Federal employee's attitudes toward reform and the general state of the Federal government (Fernandez et al., 2015). The FEAS addressed job and pay satisfaction, work relationships with other employees and supervisors, work group performance, attitudes about agency culture, and perceived promotional opportunities (Fernandez, 2015). In 1980 OPM administered a second part of the FEAS to a random sample of senior Federal executives to delve deeper into attitudes toward the Senior Executive Service, labor-management relations, and job incentives (Fernandez, 2015). The FEVS mostly focused on physical working conditions, motivation, relationships between public servants and political appointees, labor-management relations, performance appraisal, and job mobility (Fernandez, 2015).

OPM in 2002, launched the Federal Human Capital Survey (FHCS). The FHCS used a stratified sampling approach to survey Federal employees governmentwide in the executive branch (Fernandez et al., 2015). The FHCS evolved into the FEVS gathering data from Federal employees on job satisfaction, pay satisfaction, and organizational climate (Fernandez et al., 2015). The administration of former President George W. Bush release of the President's Management Agenda and the Homeland Security Act of 2002,
required 24 executive departments to designate chief human capital officers, established the Chief Huma Capital Council and mandated OPM to design systems, standards, and metrics to assess federal agencies human capital management efforts (Fernandez et al., 2015). During the George W. Bush presidency, Congress enacted the National Defense Authorization Act (NDAA) of 2004 requiring Federal agencies to survey employee satisfaction with human capital systems as outlined in the Human Capital Assessment and Accountability Framework (HCAFF). In response, OPM developed a survey to codify questions aligned with the requirements as mandated by the NDAA of 2004. The FEVS was administered during 2002 through 2010 every two years, and then every year beginning in 2011. The survey name changed from the Federal Human Capital Survey to the Federal Employee Viewpoint Survey in 2010.

## Appendix E: FEVS 2016 Generational Differences



The OECD Forum. (2017)

Appendix F: G*Power Analysis


## Appendix G: Recoded Variables

| FEVS | Recoded | Old value | New | Description |
| :---: | :---: | :---: | :---: | :---: |
| variable | Variable |  | value |  |
| DAGEGRP | Generational | A | 1 | 60 and older |
|  | Cohort | B | 2 | 50 to 59 |
|  |  | C | 3 | 40 to 49 |
|  |  | D | 4 | 40 and below |
| DLEAVING | Turnover | A | 1 | No |
|  | Intention | B | 2 | Yes, to take another job within the Federal |
|  |  | C | 3 | government |
|  |  | D | 4 | Yes, to take another job outside the Federal government |
|  |  |  |  | Yes, other (e.g., retirement, relocating, other) |

Appendix H: Scoring of Study Variables in the 2015 Federal Employee Viewpoint

## Survey

| Variable | FEVS Question | Scoring/Scales |
| :---: | :---: | :---: |
| Motivation 1 | I feel encouraged to come up with new and better ways of doing things. (Q3) | 1. Strongly Agree <br> 2. Agree |
| Motivation 2 | My work gives me a feeling of personal accomplishment. (Q4) | 3. Neither Agree nor Disagree |
| Motivation 3 | I know what is expected of me on this job. (Q6) | 4. Disagree <br> 5. Strongly Disagree |
| Motivation 4 | My talents are used well in the workplace. (Q11) |  |
| Motivation 5 | I know how my work relates to the agency's goals and priorities. (Q12) |  |
| Empowerment | Employees have a feeling of personal empowerment with respect to work processes. (Q30) |  |
| J.S. 1 | Considering everything, how satisfied are you with your job? (Q69) | 1. Very Satisfied <br> 2. Satisfied |
| J.S. 2 | Considering everything, how satisfied are you with your organization? (Q71) | 3. Neither Satisfied nor Dissatisfied <br> 4. Dissatisfied <br> 5. Very Dissatisfied |
| Turnover | Are you considering leaving your organization within the next year and if so, why? (Demographic) | 1. No <br> 2. Yes, to take another job within the Fed Government <br> 3. Yes, to take another job outside the Fed Government <br> 4. Yes, other |

