DOING MORE WITH LESS: AN ASSESSMENT OF SENIOR EXECUTIVE ATTITUDES AND BEHAVIORS TOWARDS INNOVATION IN A FEDERAL AGENCY

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DEDICATION

I dedicate this work to my mother, Barbara Gail Manley, for her unconditional love, encouragement, and support during this long journey, and for instilling in me the passion to pursue a career in public service. I love you dearly.

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ABSTRACT

Doing More with Less: An Assessment of Senior Executive Attitudes and Behaviors Towards Innovation in a Federal Agency

Mark D. Stevens

Over the last four decades, the interplay between leadership and innovation has garnered increasing discussion in public administration literature. There is growing evidence that leaders play a significant role in fostering innovation in organizations; however, there has been limited attention devoted to executive leadership support for innovation within the public sector at the federal level. This qualitative narrative inquiry was designed to explore the applicability of Bass and Avolio's model of transactional and transformational leadership in the context of public sector bureaucratic innovation. The impact of attitudes and behaviors of public sector leaders support innovation is not well documented. The lack of research examining various leadership styles and their impact on innovation poses a major gap in knowledge for federal agencies trying to find efficient and effective management strategies in tight budgetary times. Based on this information, the purpose of this research study is to explore, identify, and understand the perceptions, attitudes and behaviors of career senior executives and the impact of their leadership styles on innovation within their federal agencies.

Semi-structured interviews were conducted to assess leadership and innovation. The unit of analysis was a group of ten Institutes and Centers within the U.S. Department of Health and Human Services (DHHS), National Institutes of Health (NIH). These agencies represented diverse organizations that diverge in areas of available resources, organizational culture, and organizational structure. The interviews explored emerging themes and provided ideas for encouraging the use of innovation within federal agencies. Written government documents were employed to corroborate the interview findings. The study results confirm previous studies that the role of the leader in the group process is important to creating an environment for the use of innovation based on four significant factors: administrative discretion, length of service in the Senior Executive Service, transformational leadership, and organizational culture. The results also indicate the transformational leadership model offers the best approach to support innovation. This includes results-oriented strategy, risk-taking, adequate resources, rewards for innovators, and replication efforts to sustain innovation.

The study findings show that innovation is being used at the federal level. The findings also suggest that communicating the value and importance of innovation, assessing the need and use of innovation, fostering and rewarding innovation, and cultivating a greater awareness of innovation principles and practices in training and development are all vital aspects to the use and success of innovation. Lastly, the findings indicate the importance of considering more expanded studies into innovation use across federal agencies to enhance their management and decision-making processes.

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CHAPTER ONE: INTRODUCTION

The use of innovative practices within federal agencies has increased significantly over the years due to budgetary pressures on public leaders to do more with less. Behn (1997) argues the public sector is not any different than the private sector in its need to innovate; however, it appears the research on the role of senior executives in the United States (U.S.) federal government play in supporting innovation is scant at best. Innovation is an important management tool in helping organizations generate new ideas about goods, services, products, and practices and the relevant literature has established that a leader's style can encourage innovation. However, the U.S. federal government is designed to perform reliably, not to adapt to changing circumstances (Partnership for Public Service [PSP] 2011). The challenge remains for senior executives in the public sector, particularly those managing organizations within the federal bureaucracy, to support and sustain innovative administrative practices.

In addressing this challenge directly in the beginning of his first term in office, President Barack Obama issued a directive to federal agencies calling on public leaders to find innovative ways to increase return on investment, eliminate waste and duplication, improve the effectiveness of technology solutions, and reduce costs through shared approaches (The White House 2009). Furthermore, in his 2012 State of the Union Address, President Obama articulated a compelling vision for the federal government to cut waste, do more with less, and to streamline and deliver better results (The White House 2012). Given the current budget reality of cutbacks and steep reductions, the President's vision gives greater urgency on the part of senior executives in the federal government to think strategically and to do things cheaper, quicker and more effective in their organizations.

At a time when many in Congress are questioning the usefulness of the Senior Executive Service (SES), the paucity of research on how and why senior public leaders support innovative practices represents a significant gap in the knowledge within federal agencies that, if filled, may better equip federal senior executives through targeted training and professional development. Improved training of senior executives could help agencies support innovation in meaningful ways that reduce their administrative costs while meeting congressional mandates. Given the urgency and political climate of finding efficiencies in government, it is now more important than ever that senior executives answer the following questions: (1) Some agencies have been successful with innovation while others have not. Why are some agencies successful with innovation? (2) Are there certain situations in which different agencies need some level of innovation? (3) Does leadership style affect the occurrence of innovation? And, if so, which leadership styles are more likely to support innovation? This study seeks to answer these questions.

Problem Statement

Over the past three decades, public managers have found themselves working in conditions of fiscal stress in which they must try to compete with interest groups and congressional appropriators to accomplish public policy goals with fewer real resources (Caiden 1981). However, government fiscal policy for public health agencies – especially those supplying a public good of research and development such as the National Institutes of Health (NIH) – has tightened dramatically reducing the budget allocations and resources for agencies supporting such work. These tight fiscal times present an opportunity for senior executives in the public sector to identify innovative techniques to achieve cost-savings. In this environment, how can public sector executives support the occurrence of innovative practices within their organizations? Which leadership styles are most successful in supporting innovation? This study seeks to answer these questions.

With few studies exploring and analyzing the role of executive leadership within federal agencies, this study seizes an important opportunity to assess this in the context of understanding senior executive support of innovation. The productivity of U.S. federal agencies is perhaps one of the most hotly debated issues in Congress and the media. In today's uncertain political climate, senior executives are asked by Congress to do more with less—bringing about a need to rethink the ways in which things get done in government. Senior executives find themselves in a unique position to respond to the cynicism by implementing efficient and effective strategies to find creative and smarter ways to manage the business functions of government.

There are formidable management challenges facing our nation's most senior civil servant executives in the federal government. The scope and scale of 2009 "Great Recession" marked the beginning of a very difficult period in which senior executives were forced to manage their organizations with limited resources, including a reduction in staff and smaller budgets. Additionally, one could argue the bruising budget battles in Congress over the past three years have had devastating effects on the day-to-day management of agencies due to across-the-board and automatic cuts under the 2013 budget sequestration and Government shutdown, on top of additional budget reductions, pay freezes, a suspension of performance awards, and complex Executive orders and Congressional mandates requiring efficient spending restrictions. One could also argue these outside forces presented significant challenges for the federal workforce and ultimately affected the productivity of federal employees and thus, government performance. In this precarious environment, senior executives have had the major task of mobilizing diverse groups of stakeholders to transform business practices to accomplish certain objectives and goals. Whether senior executives in the public sector can and do make a difference should be a matter of interest of public administration scholars and practitioners.

The U.S. federal government has had a long-standing interest in the improvement of administration. Several presidential administrations have sought ways to make government more efficient and effective. In 1936, President Roosevelt created the President's Committee for Administrative Management or Brownlow Committee" to provide recommendations on management strategies for the Executive Branch of government with the goal to lay the foundation for stronger presidential leadership (Fesler 1987). President Truman appointed a body in 1947 known as the Hoover Commission to recommend administrative changes in the federal government (Heady 1949).

Although researchers and management experts recognize leadership as the number one driver of organizational performance, federal employees consistently indicate that this is where the government underperforms most significantly (PSP 2011). According to the 2011 Federal Employee Viewpoint Survey, few federal employees feel they are encouraged to initiate new ways of doing things stating, "… only 39% of employees believe innovation and creativity are rewarded (PSP 2011)."

Past studies have shown that there are several factors that can influence organizational innovation (Papadakis and Bourantas 1998). These factors include, but are not limited to, the external environment, the internal structure, leadership, and internal management systems. Light (1998) suggested that leadership, in particular, should, among other emphases, issue a call for ideas, give permission to fail, communicate to excess, and keep faith and inspiration alive. Leadership support for innovation was encouraged during the New Public Management (NPM) era of the 1980s and 1990s. The NPM period witnessed a burgeoning period of scholarly contributions encouraging a market-approach for the provision of goods and services for the federal government (Frederickson 1996).

In 1993, Congress passed the Government Performance and Results Act (GPRA) which mandated efficiency and effectiveness of public resources in the federal government. Passed under the auspices of President Clinton's Reinventing Government Initiative, the Act sought to improve government operations. There was a sense the government was "broken" and a National Performance Review provided a clarion call to move away from doing "government as usual" to addressing the root causes in government that prevented creativity in managing resources (Frederickson 1996). According to the Congressional Research Service (CRS), GPRA intended to produce greater efficiency, effectiveness, and to ensure that an agency's programs and priorities meet its goals (Kenzo 2005). Over the past decade, the Bush and Obama Administrations issued government-wide Management Agendas that called for innovative strategies to managing federal agencies.

President Bush's Management Agenda

GPRA was supplemented by President George W. Bush's Program Assessment Reporting Tool (PART) under the President's Management Agenda. The Agenda announced five primary government-wide initiatives: Strategic Management of Human Capital, Competitive Sourcing, Improve Financial Performance, Expanded Electronic Government, and Budget and Performance Integration (Rainey 2009). PART allowed the government to rate federal agencies in each of the primary categories to assess progress. Although agencies made progress improving their operations as mandated by GPRA, many in Congress argued for more effective management capabilities to better implement new programs and policies (GAO 2011).

In responding to the need for more action, Congress passed a new government framework through the 2010 Government Performance and Results Modernization Act of 2010 (GPRMA) to develop long-term goals to improve key management functions across the government, including financial management, human capital, information technology, procurement and acquisition management, and real property (GAO 2011). GPRMA provided an update to the original 1993 law continuing in the spirit of requiring individuals be responsible for agency goal-setting and managing tasks (Brass 2012). According to GAO, GPRMA helped address significant fiscal, performance, and management challenges facing the Federal government (GAO 2011). Perhaps the single most important element of successful management improvement initiatives is the demonstrated commitment of top leaders, as shown by their personal involvement in reform efforts (GAO 2011). The spirit of GPRAMA dovetails with the Management Agenda of President Barack Obama.

President Obama's Management Agenda

There has been a clear shift in focus and priorities in the federal government over the last decade. On the one hand, under President Bush's Management Agenda (2001-2008), federal agencies focused on competitive outsourcing of inherent governmental functions, consolidating services, and improved financial performance. On the other hand, President Obama, given the dire economic woes of the U.S. economy and the fiscal constraints of the federal budget, has pushed an agenda centered on efficient spending, open government, transparency, and cost-savings. In 2009, the Obama Administration unveiled a Memorandum on Transparency and Open Government calling for federal agencies to use innovative tools to achieve collaboration leading to collective expertise and information. The memo stated, "Executive departments and agencies should use innovative tools, methods, and systems to cooperate among themselves, across all levels of Government, and with nonprofit organizations, businesses, and individuals in the private sector (The White House 2009)."

Purpose of the Study

The main purpose in conducting this study was to explore, describe and interpret what an important group of public managers reported about their role in supporting innovation in a large federal agency. The study identifies and describes the range of attitudes and behaviors with regards to innovation. The research provides a compelling narrative as to why the senior executives interviewed held such attitudes and how these attitudes affect organizational behavior. Last, but not least, the study provides an advanced understanding of how innovation is perceived and supported by a group senior executives. The researcher assumed senior executive attitudes must precede any engagement in behaviors that support the occurrence of innovation within their organizations. This research fills the gap in scholarship by conducting research on attitudes and behaviors of public sector senior executives.

Background of the Study

A stream of research and discussion about innovation in government has developed in recent decades. Grady (1992) argues that fostering innovation is a central role of public sector leadership. The use of innovation in public administration has increased significantly over the years at the federal level in efforts to: (1) drive down costs to reduce debt burden; (2) create opportunities to apply information technology solutions to management challenges; (3) pursue alternative service delivery; and (4) support organizational transformation (Borins 2002). This is significant given that innovation and bureaucracy are diametrically opposed in theory and are often referred to as an oxymoron (Borins 2002). This study presents a current picture of the leadership styles being utilized by senior executives and to understand the impact, if any, they have on supporting innovation in an organizational setting. This research seeks answers to why public administration research has not focused specifically on senior executive leadership and innovation.

Senior Executive Service

It is undeniable that strong leadership and management skills are essential to effective public administration. In Federalist Paper No. 68, Alexander Hamilton, regarded as a major contributor to the early origins of American public administration, stated, the "true test of a good government is its aptitude and tendency to produce a good administration (Hamilton, The Federalist No. 68, 1788)." Individuals are needed to work in the federal government to implement important public policies for the American people and it was this sentiment that led to the creation of the SES.

Members of the SES play a critical role in the federal government's management efforts. The SES was created during a time period in the U.S. when the American public wanted a more responsive government. Perry, Hondeghem, & Wise (2010) argue the American public service during that time period witnessed criticism leading to personnel reform to change government service. According to Dullea (1979), in an effort to address the perception of inefficiency and ineffectiveness of government operations and the underdevelopment of government executives during the late-1970s, President Carter signed the 1978 Civil Service Reform Act (CSRA) creating the SES. Section 3396(a) of the CSRA states:

> The Office of Personnel Management shall establish programs for the systematic development of candidates for the Senior Executive Service and for the continuing development of senior executives, or require agencies to establish such programs which meet criteria prescribed by the office (Dullea 1979).

The Reform Act of 1978 abolished the U.S. Civil Service Commission and established two organizations in its place, the Office of Personnel Management (OPM) and Merit Systems Protection Board (MSPB) (Halchin 2003). Not only did the Reform Act of 1978 propose to improve government productivity and efficiency, but to make federal agencies responsive to public officials (Ingraham and Colby 1982). The intent of the SES was to build a cadre of individuals based on exemplary leadership skills. Overall, the SES was created to improve public management by making top government managers more mobile and flexible by increasing performance incentives and rewards, and by increasing the discretion of the political managers in the placement of career personnel (Ingraham and Colby 1982).

The Office of Personnel Management (OPM) refers to the SES as "America's National Asset (U.S. Office of Personnel Management, Senior Executive Service, 2013)." The leadership corps is comprised of roughly 7,000 individual executives who are classified above the GS-15 level in the career civil service (Kohli, Gans, and Hairston, 2011). However, to address the complex management challenges facing the government, there is a need for a strong cadre of senior executive to ensure the transformation of the business of government. According to the Senior Executives Association, about 90% of federal executives will be eligible for retirement over the next 10 years (Senior Executives Association, 2010, 5). Rising senior executives are critical to implementing the Administration's political and management agenda, and these officials are an essential link between administration and agency activities such as rulemaking, implementation, enforcement, and operations (Senior Executives Association, 2010, 9).

The SES is in charge of ensuring continued government transformation. Members accepted into the SES have demonstrated they possess executive core qualifications and the competencies needed to lead change, lead people, deliver results, develop business acumen, and build coalitions. The SES is described this way on the program's website:

> The Senior Executive Service (SES) is comprised of the men and women charged with leading the continuing transformation of our government. This dedicated corps of executives shares a commitment to public service and a set of democratic values grounded in the fundamental ideals of the Constitution. As the leaders of our Federal civilian workforce, Senior Executives strive each day to create a more citizen centered, result oriented Federal Government (U.S. Office of Personnel Management 2013).

The goal of the new mandate was to build a cadre of exceptional leaders to improve governmental performance. According to Dullea (1979), unlike past reform efforts, the 1978 Reform Act was a byproduct of the new management-oriented SES. The creation of the SES was an effort to develop statesmen who possess a unique capacity to define and pursue the public interest through their legitimate use of administrative discretion (Haraway and Haraway 2004). Creation of the SES was another reform effort to achieve the values of accountability, efficiency, and effectiveness in government. The program provided for greater flexibility in assigning and transferring senior executives, and strengthening accountability for individual and organizational performance through annual performance evaluations. Career appointments are made through a competitive, merit staffing process. As stated before, there are currently over 7,000 career senior executives serving in the SES (Carey 2012). There is no statutory limit to the number of SES positions an agency can have.

An important element of the 1978 mandate required senior executives in the federal government to encourage innovation within their organizations (U.S. Office of Personnel Management 2013). In fact, one of the most significant attractors for considering an SES position is the ability to contribute more to the mission of an agency, and greater opportunity for creative and innovation (Lundgren, 2010, 6). OPM convenes an SES Qualifications Review Board (QRB) to review a candidate's executive core qualifications (ECQs), which are general skills deemed necessary for senior executives (Carey 2012). The five ECQs are: 1.) leading change; 2.) leading people; 3.) results driven; 4.) business acumen; and 5.) building coalitions (U.S. Office of Personnel Management 2013). Encouraging innovation could contribute to organizational strength in strategic planning and decision-making by finding cost-savings to government operations.

It is important to students of public administration and practitioners currently working as senior executives to discern which attitudes and behaviors are more likely to support the occurrence of innovation in their organizations. This will be useful in meeting the training and education needs of current and rising senior executives. As noted in a Memorandum for the Senior Executive Service from Jeffrey Zients, the Federal Chief Performance Officer, "leadership training and development is especially critical given the large number of senior managers eligible for retirement in coming years. The impending turnover creates a compelling need to strengthen the top career leadership of the Federal Government (Zients, Memorandum to the Senior Executive Service, 2010).

National Institutes of Health

The unit of analysis for the study was 10 Institutes or Centers at the National Institutes of Health (NIH). The NIH, an operating division of the U.S. Department of Health and Human Services (DHHS), exhibits the characteristics of many of the agencies that comprise the bureaucracy of the U.S. federal government. Located in Bethesda, Maryland, Montgomery County, NIH is the primary agency of the federal government charged with the conduct and support of biomedical and behavioral research. The agency is comprised of 27 Institutes or Centers (ICs) with distinct missions, multiple federal appropriations (budgets), varying size, and complexity. The NIH mission is "to seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce the burdens of illness and disability" (NIH 2013). In Fiscal Year 2013, Congress appropriated a $31 billion budget for NIH and its 18,493 full-time equivalent employees (NIH Office of Budget, 2014). The funding is devoted to basic and clinical translational research aimed at maintaining a vibrant and well-trained scientific workforce to advance the nation's health and economic well-being.

A group of senior executives at the NIH were selected because of the machinations of the agency. As defined by Goodsell (2011), there is a "mission mystique" surrounding the work of the NIH – the notion that the agency's radiating aura of special importance and excitement derives from the substantive nature of the biomedical research it conducts and information it disseminates to the public. The late-U.S. Senator Arlen Specter (D-PA) once stated that, "NIH is the "crown jewel of the federal government—perhaps the only jewel of the federal government," alluding to the agency's exceptional reputation of conducting sound federally-funded biomedical research leading to scientific breakthroughs across a range of disorders and diseases – a public good worth tremendous public value (Specter, NIH Medline Plus, 2008). More of interest to the researcher is the synergistic collaboration between NIH scientists and the senior executive workforce that oversee the business functions supporting the research enterprise. The scientific work of NIH is well-known to the outside world; however, very little scholarship has been written on the role of senior executives in supporting administrative innovation in such a dynamic organizational environment.

Senior Executives at the National Institutes of Health (NIH)

Although NIH is a biomedical research agency known for its unparalleled scientific contributions, the emphasis for this study will focus on the senior executives who act as the top administrative managers of key business functions – human resources, information technology, finances, contracts, space, and facilities – that support the scientific priorities of each Institute or Center. The central NIH Office of Management states the vision of the administrative community is the following (NIH Office of Management 2013):

> As valued partners with the scientific workforce, we will foster a performance-driven culture and cultivate a highly-motivated, world-class, administrative workforce. We will maximize the efficient use of NIH resources through effective leadership, stewardship, expertise, innovation, optimal organization design, and the transparent use of performance data.

The senior executives who manage the administrative management of these organizations deserve more scholarly attention into their professional backgrounds, leadership styles, and efforts to support administrative innovation within the scientific culture of innovation. One of the many challenges facing the agency and its research enterprise is the public mandate to produce research within restrained budgets (Johnson and Smith, 2011). The interviews for this study were conducted with 10 senior executives who manage a sample of these Institutes or Centers. By looking at the NIH, the researcher hopes scholars and practitioners can learn something that may have broader application for the management of federal agencies and other public organizations in general.

Scholars, in their attempt to understand the interplay between leadership and organizational innovativeness, have attempted to identify leadership styles appropriate for fostering innovation. According to Jaskyte (2004), some scholars suggest that supportive, participative, vision setter, democratic, and collaborative leadership styles are effective in encouraging innovation (Farris 1973; Schin and McClomb 1998; Quinn

1988; Van de Ven 1986). Wilson (1989) argues that "innovations are so heavily dependent on executive interests and beliefs as to make the chance appearance of a change-oriented personality enormously important in explaining change (p. 227)." He further argues that almost every important study of bureaucratic innovation points to the great importance of executives in explaining change. Yet, even with these findings, more research is needed to explore the attitudes, behaviors and leadership styles of senior executives. This research study is a qualitative study of U.S. Department of Health and Human Services (DHHS), NIH senior executives.

Given the limited attention paid to the relationship between public sector leadership and bureaucratic innovation, this study may shed light on the degree to which senior executives support innovative practices by seeking improvements, adapting or developing a product, system or service within their organizations. The researcher's aim is to provide knowledge to public sector practitioners and scholars in the field of public administration. The findings could be presented to the OPM and the NIH Training Center, which administers the NIH Mid-Level, Senior, and Executive Leadership Programs. Senior executive qualifications, performance expectations, and trainings programs could also be improved based on the research findings.

The current political climate of cutting back resources for federal agencies gives a new sense of urgency for senior executives to find new and creative ways to manage resources without impacting mission-critical services. The researcher assumes that senior executives are trained and prepared to develop and implement innovation strategies within their federal agencies. According to the Office of Personnel Management (OPM), senior executives are required to encourage innovation within their organizations under the Executive Core Qualification (ECQ) 1 – Leading Change, which states, senior executive service members should "…be creative and innovative by developing new insights into situations; questions conventional approaches; encourages new ideas and innovations; and designs and implements new or cutting edge programs/processes (U.S. Office of Personnel Management 2013)."

Significance of the Study

This research study is significant because it contributes to the limited body of knowledge regarding the role executive leadership style plays in supporting innovative practices within federal agencies. The study offers a step toward a broader understanding of leadership in supporting innovation within a bureaucratic context. The study is significant and timely for two particular reasons. One significant aspect is that the study examines the relationship between leadership and innovation at a major milestone in the history of career federal executives, as the year 2013 marked the 35th anniversary of the CSRA, which created the SES.

Another significant aspect of the study is that it represents a concerted effort to contribute to the scholarship and discussion of the viability of the SES. There has been increasing media coverage of the calls within Congress to reform the implementation of SES. According to a CRS 2012 report, while changes were made in 2004 to the SES pay system, "further calls for reform are being offered to reexamine the role of senior executives in improving the overall efficiency and management of government programs and the government workforce (Carey 2012)." Since its inception, the SES has struggled to realize the full potential of having a cadre of executive leaders be mobile wherever a need arises throughout the federal government. Hard questions need to be asked about the original intent of the SES versus the practice of the SES. Additionally, the study examines the use of innovation being guided by a transactional and transformational leadership framework that analyzes two important styles that might contribute to more administrative innovation. Lastly, the study includes senior executives in the research design in order to gather practitioners in a focused and rich exploration of the effect of transactional and transformational leadership on innovation adoption and implementation.

The SES anniversary and recent congressional attention prompts the question: Where are we now with the SES? What emerging themes and patterns will come from a rigorous exploration into their daily work as agency leader? Providing this new perspective on the scholarship of public sector leadership and innovation will assist in addressing the following research questions: why have some agencies done a good job with implementing an innovation at an economical cost and with improvement over the status quo, under what circumstances is it being used, and which leadership styles are more likely to support innovation? By addressing these questions, federal agencies can begin to further enhance their management tools and efforts that will support innovative practices in their current decision-making and management processes.

Overview of the Methodology

The methodology for this study was a qualitative narrative approach that relied on the use of semi-structured interview approach (Borins 2012), document analysis (Creswell 2009), and coding and content analysis (Creswell 2009). As noted previously, the purpose of this interpretive inquiry was to explore, describe and interpret the attitudes and behaviors of senior executives to understand if these formulate their support for innovation in their agencies within the NIH. Using a group of 10 senior executives at the NIH as the unit of analysis, interviews were conducted with the administrative heads of ten ICs including the: National Institute on Drug Abuse (NIDA), National Institute of Neurological Disorders and Stroke (NINDS); National Center for Advancing Translational Sciences (NCATS); National Eye Institute (NEI); National Institute on Aging (NIA); National Cancer Institute (NCI); National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); National Institute of Allergy and Infectious Diseases (NIAID); NIH Clinical Center (CC); and National Heart, Lung, and Blood Institute (NHLBI). The selected Institutes or Centers are diverse in missions, budgets, organizational culture and structures. These ten Institutes and Centers represent 62% of the sixteen Institutes and Centers with SES certified leaders.

The participants were purposely selected because they represented the administrative leadership of a sample of diverse agencies of the NIH. The participants are perceived amongst their peers within the NIH senior executive community as being creative within the intra- and inter-agency decision-making structures. The first phase of the research consisted of 10 individual, in-person, semi-structured interviews to explore the background and leadership styles of the senior executives to understand how these factors have influenced their attitudes and behaviors towards innovation within the bureaucratic confines of the NIH. This phase applied the Bass and Avolio (1990) leadership framework of transactional and transformational leadership. The interviews explored emerging patterns and ideas for encouraging the use of innovation in agencies that currently do not have a strategy to do so. Written documents included Congressional Justifications, administrative strategic plans, presentations and others which allowed for further analysis. The research results were interpreted in relation to the study's research questions and addressed the significance of the results, discussing the flaws in the research design, the ability to generalize the results, and implications of the results towards the use of innovation at the federal level (Creswell 2009).

Overview of the Dissertation

The dissertation consists of five chapters. Chapter two reviews the literature on innovation, bureaucracy, and leadership, the definitions of innovation, and use of innovation in the public sector, particularly at the federal level. The chapter concludes with the theoretical considerations including Bass and Avolio's (1990) transactional and transformational leadership framework regarding the role of the leader in the group process. Chapter three presents the research methodology for the study and includes the research design, unit of analysis, and the data collection and analysis processes. Chapter four provides the results and major findings from the study, and chapter five concludes the study by providing key implications for theory, practice and research for public administration.

CHAPTER TWO: LITERATURE REVIEW

The significance of the relationship between leadership and innovation and the benefits associated with the relationship within public sector organizations has been well documented in the public administration literature. Leadership is about coping with change in a more competitive and volatile environment (Kotter 2001). In a bureaucratic context, Wilson (1989) proclaimed that "innovations derive almost exclusively from the top," while Borins (2001) found that innovation primarily occurs at lower organizational levels. One stream of research in the general management literature examined individual innovativeness (Kanter 2002; Hoffman and Hegarty 1993; Damanpour 1996). Kanter (2002) argued, "the behavior and attitudes of leaders can encourage or stifle innovation. Furthermore, quantitative studies have shown that the interplay between leadership and innovation has been initiated at state and local levels of government (Grady 1992; Borins 2001; and Zegans 2002).

However, it is believed that the link between executive leadership and innovation is required for the fostering, supporting, and sustaining of innovative practices within an organization. Moreover, there have been debates on the value of the leaders' role in the innovation process. Although significant research has been conducted on the subject, important questions remain unanswered. Scholars and practitioners in the field do not know nearly as much as we should concerning the role of senior executives in supporting innovation in federal agencies. The literature clearly shows that there is not as much written on the subject as is available for private sector innovation. Behn (1997) argues that organizational innovation is less encouraged in the public than the private sector (Kelman, 2008, 29). Sorensen and Torfing (2012) contend that when it comes to the public sector there is a lot of skepticism with regard to the capacity for innovating public policies, organizations and services. However, what is less understood is whether senior executive leadership plays a role in supporting innovation within the federal government. Specifically, research on whether senior executive attitudes, behaviors, and certain leadership style support of innovation practices at the federal level has yet to be explored in depth. This represents a significant gap in knowledge regarding the understanding of leadership support for the adoption and implementation of innovative practices for federal business operations, particularly in light of the efficiency spending requirements and budget reductions for federal agencies.

What is Innovation?

There is considerable debate over the concept of innovation. In looking at the concept, Behn (2008) asked the following questions: What is it? What is the core concept? What needs to be faithfully replicated? What variations of the basic concept will work? What kinds of adaptations are acceptable, desirable, and essential? Is it a new organizational routine that was introduced (Behn 2008)? A cross-section of the literature suggests that an idea or practice count as innovations; however, the burden is placed on the newness or novelty of an idea or practice (Slappendel 1996). Thompson (1976) defined innovation as the "generation, acceptance and implementation of new ideas, processes and products or services." Daft (1978) argues that organizational innovation is usually defined as "the adoption of a new idea or behavior by an organization." Damanpour (1996) defined innovation as the "adoption of an idea or behavior new to the adopting organization." Researchers have argued that innovation, at an organizational level, is the "development (generation) and/or use (adoption) of new ideas or behaviors (Damanpour and Wischnevsky 2006). Slappendel (1996) argues that innovation is the process through which new ideas, objects, and practices are created, developed, and reinvented. Lynn (1997) argues that innovation is properly defined as "an original, disruptive, and fundamental transformation of an organization's core tasks." Moore *et. al* (1997) maintained innovation as "large enough, general enough and durable enough to appreciably affect the operations or character of the organization." See Table 1 for a shortened list of key articles and studies offering definitions of innovation.

Table 1: Key Definitions of Innovation

Scholar	Definition
Thompson (1976)	Generation, acceptance and implementation of new ideas, processes, and products or services
Daft (1978)	Adoption of an idea or behavior by an organization
Rogers (1995)	Innovation is the adoption of an existing idea for the first time by a given organization
Damanpour (1996)	Adoption of an idea or behavior new to the adopting organization
Slappendel (1996)	The process through which new ideas, objects, and practices are created, developed, and reinvented
Lynn (1997)	Original, disruptive, and fundamental transformation of an organization's core tasks
Moore, et al. (1997)	Large enough, general enough and durable enough to appreciably affect the operations or character of the organization

The common theme shared by the seven definitions provided is a belief that innovation produces something completely new or that an idea, behavior, tool, process, product, service is adopted and implemented by one organization into another. The literature also reveals a clear distinction between an invention and innovation. Rogers (1995) argues that an invention is the creation of a new idea while innovation is the adoption of an existing idea for the first time by a given organization. An invention can be patented, whereas an innovation typically would not (Borins 2002). Innovation does not rest solely on the origin of the solution but in the context in which the innovation is implemented. This study utilizes Daft's definition of innovation—the adoption of an idea or behavior new to the adopting organization (Daft 1978).

Reasons for Innovation

Moore (1995) argues that senior managers face ambiguity in deciding how to lead their organizations (Kelman 2008). However, there is always room for improvement in the ways in which organizations use their resources. At an organizational level, innovation is a management tool to survive in the face of uncertainty or challenges. All organizations, be they public or private, want to not only survive but thrive in the environments or markets in which operate. The need for innovation is no less important in the public sector than in the private sector (Altshuler & Zegans 1990). Damanpour and Wischnevsky (2006) argue that organizational leaders, be they public managers or business executives, view innovation as a source of organizational change, growth and effectiveness. Competitive advantage is one of the driving forces behind the need for organizations to stay ahead in their environments given constraints and political influences. Mintzberg (1994) argues senior managers are encouraged not be rigid but all-inclusive incorporating their intuition, creativity, and vision in the strategic planning process to drive efficiency in organizations. Many innovations are adopted because current techniques are perceived as unsatisfactory (when a performance gap exists) March and Simon (1958).

Types of Innovation

Innovation does not come in a "one size fits all" model. The basic literature suggests innovation can be categorized in three primary areas of study: organizational innovation and innovativeness, individual innovativeness, and fostering innovation (Crum 2006). Innovations can be classified into three primary types such as administrative, technological or process-oriented (Kimberly and Evanisko 1981). This study looks specifically at administrative innovations within organizational settings, which Kimberly and Evanisko (1981) define as "indirectly related to the basic work activity of the organization and are more directly related to management activities." Damanpour (1987) argues that an administrative innovation is "the implementation of an idea for a new policy pertaining to the recruitment of personnel, the allocation of resources, the structuring of tasks, of authority, of rewards."

Administrative innovations promise to further managerial efficiency or effectiveness as they involve organizational structure and administrative processes, including but not limited to, management by objectives, staff incentive systems and telecommuting (Kimberly and Evanisko 1981). Jaskyte (2011) defines administrative innovation as the "implementation of a structure, procedure, system, or process in the administrative core of an organization that is new to the prevailing organizational practices (p. 78)". This research study accepts Jaskyte's definition of administrative innovation as the guiding definition in understanding the senior executives' role (Jaskyte 2011). Berry (1994) writes of the need to research administrative innovation to enhance our understanding of public sector innovation. More importantly, the scholar writes that "because an agency direction often has so much discretion over administrative innovations, attention should be given to developing hypotheses about the impacts of individual attributes and attitudes of managers on the likelihood of adopting administrative innovations. The extant public administration literature does not appear to speak to the role of senior executives and the role of their leadership styles on the occurrence of innovation within their agencies.

Innovation Frameworks

Drawing on the literatures of organizational theory, organizational behavior and organizational change, scholars have written considerably on the subject of innovation. The literature reveals frameworks have been developed to explain the innovation process of identifying, adopting and implementing innovation within organizations. Daft (1978) writes that the process of innovation is frequently described as consisting of four essential steps—conception of an idea, proposal of the idea, decision to adopt an idea, and finally implementation of the idea. There is a substantial amount of literature on managing innovation and sources of innovation. Crum (2006) notes the literature contains studies researching a variety of influences on innovativeness, such as organizational cultural characteristics, management techniques, and administrative processes.

Leader's Role in Innovation

One of the components linked to innovation is leadership. Successful change demands a process that is 70 to 80 percent leadership and 20 to 30 percent management (Finnie and Norris 1997). It is important to note that leadership and management are not the same. Kotter (2001) argues leadership and management are two distinctive and complementary systems of action—both are necessary but each has its own function and characteristics activities. Management is about coping with complexity in practices and procedures. Management develops the capacity to achieve its plan by organizing and staffing-creating organizational structure and set of jobs (Kotter 2001). Leadership, however, is more concerned with aligning people to produce change (Kotter 2001). Leadership creates or alters organizations in some fundamental way by challenging the status quo, creating a vision, communicating that vision widely, getting people to believe in it, and then empowering them to act (Finnie and Norris 1997).

Among the factors that influence employees' creative behaviors and performance, leadership has been identified by many researchers as being one of the most, if not the most important (Amabile 1998; Jung 2001; Mumford & Gustafson 1988). Tierney et al. (1999) argue leaders can affect followers' intrinsic motivation and higher level needs, which are known to be important sources of creativity. Indirectly, leaders can support creativity by establishing a work environment that encourages employees to try out different approaches without worrying about being punished just because outcomes are negative (Amabile, Conti, Coon, Lazenby, and Herron 1996).

More of interest to the researcher is the number of frameworks that highlight the roles of executives and managers in supporting innovation. Evan (1966) theorized that administrators and lower employees both initiate innovations, depending upon the type of innovation to be proposed. Papadakis and Bourantas (1998) developed a framework consisting of organizational contexts and top management characteristics, describing the influence on technological innovation. In explaining the role of innovation characteristics on innovation adoption in organization, Damanpour and Schneider (2008) argue that manager demographic and personal characteristics greatly influence the relationship between innovation characteristics and innovation adoption. Damanpour

(1996) studied the effects of 14 contingency factors on the relationship between structural complexity and innovation and organizational size and innovation. The factors included environmental uncertainty, organizational size, industrial sectors, types of innovation, and states of innovation adoption.

Another approach to the literature on innovation, and one that is of particular interest to the researcher, involves studies examining innovation in the federal government. Abramson & Littman 2002; Altshuler 1997; Borins 2001; and Altshuler and Zegans 1990) found that innovation occurs throughout the federal government; however, there appears to be very few studies of this and a profound gap in knowledge qualitatively on senior executive support for innovation.

Strategies for Innovation

Over the past three decades, public organizations have pursued various strategies of innovation to improve efficiency and effectiveness of programs. As leaders in their organizations, public administrators and business managers alike can influence workers' motivation and job satisfaction, create a work and social climate to improve morale, and encourage and reward innovation and change (Damanpour and Schneider 2008; Elenkov, Judge, and Wright 2005; and Hooijberg and DiTomaso 1996). The organizational environment is a critical element in supporting innovative practices. Bardach (1998) and Borins (2002) argue that innovation frequently involves inter-organizational collaboration and this collaboration is governed by creating coordinating structures, such as interdepartmental committees.

Additionally, there are five strategies for innovation commonly cited in the literature, including: leadership/champion, reward programs, teams, failure tolerance, and resource investment (Crum 2006). Reward programs are an important component of supporting innovation and creativity (Amabile, Conti, Coon, Lazenby and Herron 1996). Through case studies, Linden (1990) concluded an innovative manager can make an organization effective and found these managers shared seven characteristics: strategic action, holding on and letting go, creating a felt need for change, starting with concrete change, using structural changes, dealing with risk, and using political skills. de Lancer Julnes (2009) argues that organizational culture plays a significant part in shaping the way organizations react to innovation and change. Khademian (2002) defines organizational culture as the common understanding of the work organizations do, why they do it, and how they relate to the clientele they serve. To adopt and implement successful innovations there needs to be time, freedom, flexibility, access to resources, autonomy, and champions needed for innovation.

Bureaucracy

The basic literature on bureaucratic innovation is very extensive. As a result, the discussion of bureaucracies in this study will not be comprehensive in scope rather it will provide a context in which to explore the basic characteristics and discussion of the role of administrative innovation, particularly within public organizations. Early public administration theorists studied how an organization can be more efficient and acknowledged the significance of having a division of labor as a key component in management. Scholars such as Frederick Taylor (1912), Luther Gulick (1937) and Chester Barnard (1968) focused on how organizations can be more efficient. Taylor (1912) made a strong case that scientific management was an effective approach for leaders and followers while Gulick's theory of organization consisted of a "structure of coordination imposed upon the work division of an enterprise (p. 79, 1937). From their viewpoint, workers needed a clear set of rules and guidelines to ensure their productivity. Wilson (1989) notes that bureaucratic innovations differ greatly in character and the attempt to find one theory to explain them all is like trying to find one medical theory to explain all diseases (p. 277). Wilson (1989) argues that organizations resist innovation because they are created to replace the uncertain expectations and haphazard activities of voluntary endeavors with the stability and routine of organized relationships.

There is considerable agreement among scholars that public sector organizations are large bureaucracies structured to perform their core tasks with stability and consistency, and as a result, they resist change or disruption of these tasks (Wilson 1989). The conventional wisdom is that public sector innovation is a virtual oxymoron (Borins 2002). One focus area of the study is on the operational definition of an organization. Given that many organizations – large and small – comprise the bureaucracy of the federal government, the researcher believes it is prudent to understand the concepts, theories and debate surrounding organizations. Shafritz, Ott, and Suk (2010) define an organization as a "social unit with a purpose." Daft (2007) defines an organizations as the "social entities that are goal directed, deliberately structured activity systems with a permeable boundary. Daft (2001) and Weber (2001) define bureaucracy as having the following characteristics: hierarchical authority, formalization through rules and procedures, and specialization and a fixed division of labor.

The literature also reveals limitations of bureaucracies. A commonly cited limitation is for bureaucracies to successfully confront internal and external changes or challenges. Thompson (1976) asserts that change is likely to be viewed as a threat to bureaucratic organizations because they are designed to remain stable, orderly and productive. Additional limitations of bureaucracies include management's resistance to risks, fear of failure, and the desire to maintain the status quo.

Leadership

The underlying purpose of this research study was to examine the attitudes and behaviors of executive leaders in a federal agency. Scholars have sought to identify leadership styles appropriate for fostering and supporting innovation. One of the major factors repeatedly suggested to foster and support innovation is leadership (King 1990; Osborne 1998; Schin and McClomb 1998 and Schein 1985). The PPS defines innovation leadership as "the practice of cultivating an environment where improvement, adaptation and invention are encouraged, fostered and rewarded (Partnership for Public Service 2011)." Leadership styles that encourage the invention of and/or adoption of new ideas in public organizations are important to understanding how to achieve organization productivity, effectiveness and efficiency.

Defining Leadership

Defining leadership is a thankless task as a review of the literature reveals decades of numerous definitions, ideas, concepts and frameworks. Rainey (2009) frames the concept of leadership as the capacity of someone "to direct and energize people to achieve goals (p. 316)." Shafritz (2004) defined leadership in public administration as the "exercise of authority whether formal or informal, in directing and coordinating the work of others." When discussion leadership, Rainey (2009) argues that most people mean the capacity of someone to "direct and energize people to achieve goals (p. 316)." According to Van Wart (2013), there are five theories of leadership including classical management and role theory, transactional leadership theory, transformational leadership theory, horizontal or collaborative leadership theory, ethical and critical leadership theory. Burns (1978) was among the first to write in a detailed way about two of these styles, presenting two theoretical constructs—transactional and transformational theories—which are key concepts or styles that are relevant to this study. In this study, the researcher used the transactional and transformational leadership model to assess the leadership attitudes and behaviors found in the agencies under study.

Administrative Discretion

Having a proper role of authority in government is critical for an administrator to achieve administrative efficiency. Simon (1997) defines authority as the "power to make decisions which guide the actions of another (p. 179)." Doig and Hargrove (1997) argue that leadership within a bureaucracy is responsible for leading organizational change. Rosenbloom (2003) argues that the use of discretion by thoroughly trained, professional, competent administrators can be highly beneficial and that society has come to depend on it. Rosenbloom (2003) also argues that administrative discretion allows agencies to exercise a great deal of flexibility in implementing or enforcing laws, rules, and other regulations. This is where the need for innovation comes becomes important because as noted by Jaskyte (2011), it allows for the invention or adoption of new procedures, rules, roles, and structures to support communication and exchanges among employees related to organizational management rather than directly to work activities.

Transactional vs. Transformational Leadership

This research study explored, assessed and analyzed the leadership characteristics of 10 senior executives in the federal government. Prominent scholarship on leadership can be found closely associated with the work of Burns (1978). Burns (1978) argued that leadership is a "power relationship through which order to achieve a purpose, through two different forms can be identified—transactional and transformational." According to Burns (1978), transactional leadership is achieved by arraigning advantageous terms of exchange between leaders and followers. The leader motivates followers by recognizing their needs and providing rewards to fulfill needs in exchange for performance and support. Transformational leadership, on the other hand, works not by self-interested exchange but by mutual engagement between leader and follower in such a manner that both are elevated to higher levels of a common aspiration. In this case, the leader motivates the followers to transcend their own narrow self-interest in pursuit of goals for the benefit of the community or nation (Rainey 2009).

Although Burns' (1978) seminal contribution laid the foundation for understanding the important roles of transactional and transformational leadership, it was the model offered by Bass (1985) and Bass and Avolio (1990) that examined these two leadership constructs in detail and presented them as complementary and not opposites (see Table 2). In looking at senior executive support for innovation, the researcher will be interested in which leadership style best represents the participants in describing his or her way of supporting innovation.

Transactional Leadership

Transactional leadership is an exchange between leader and follower (Bass 1990). A transactional leader rewards or disciplines a follower in exchange for the follower acting and performing in an agreed upon role (Bass 1997). Rewards in transactional relationships range from monetary compensation to promotions and praise, while failure results in negative feedback and reproof (Bass 2000). Rewards depend solely on self-interested performance vary from person to person. Bass (1985) presented two elements of transactional leadership, including management by exception, which can be practiced actively and passively, and contingent reward. Management by exception can be used as a corrective measure when subordinates fail to accomplish required tasks. This style of leadership implies closely monitoring for deviances, mistakes, and errors and then taking corrective action as quickly as possible whey they occur (Bass, Avolio, Jung & Berson 2003).

Transformational Leadership

Effective leaders not only ensure that things get done and that employees are appropriately empowered in the present but also take the organization into the future. Transformational leaders are able to motivate their followers and move them beyond immediate self-interest through the four essential elements of idealized influence, individual consideration, inspirational motivation and intellectual stimulation (Bass 1985). First, idealized influence is the charisma or the ability of the leader to have followers wanting to follow them in the direction they are leading the group. Second, and perhaps the most important element is intellectual stimulation, which allows the leader to challenge their followers' assumptions of old problems in new and innovative ways. Bass et al. (2003) argue that "embracing innovation allows subordinates to challenge themselves, which often results in personal growth." Third, individual consideration is the leader's ability to listen, understand, and meet the needs of their followers to promote their individual development. Lastly, inspirational motivation is the process in which leaders behave in ways that motivate those around them by providing meaning and challenge to their followers' work with the assistance of enthusiasm and optimism around individual and team cohesion (Bass, Avolio, Jung & Berson 2003). The environments of organizations are always changing, so the roles of their leaders adjust to ensure that the organizations will institute changes as they become necessary (Behn 1997). Transformational leadership presents an ideal framework for supporting innovative practices within an organization.

Table 2: Transactional and Transformational Leadership Theory

Transactional Leadership	Transformational Leadership
Passive Management by Exception (PME)	**Idealized Influence (II)**
Punishments or other corrective actions in response to obvious deviations from acceptable standards	Arouses followers' emotional attachment to the leader and identification with him or her
Active Management by Exception (AME)	**Intellectual Stimulation (IS)**
Looking for mistakes and enforcing rules to avoid mistakes	Engages followers in recognizing and confronting challenges and in viewing challenges from new perspectives
Contingent Reward (CR)	**Individualized Consideration (IC)**
Clarifying the work required for rewards, and ensuring rewards are contingent on appropriate behaviors	Provides support, encouragement, and coaching
	Inspirational Motivation (IM)
	Communicates an appealing vision, using symbols to focus efforts, and modeling appropriate behaviors

Understanding Leadership in Public Sector Innovation

This study develops a qualitative content analysis of managerial behaviors, activities and competencies associated with what managers must do to support innovation. The public administration literature has lagged in documenting the progress of models of transactional and transformational leadership in government settings. The research advances the understanding of the support of leadership styles on the occurrence of innovation in public organizations. Organizations are systems in which desired goals are achieved through the wise use of human, financial, technological, and natural resources (Fayol 1930). Gulick (1937) argues that effective organizational management is supported by planning, organizing, staffing, directing, coordinating, reporting and budgeting (Shafritz and Hyde 2004). Leaders are significant factors and sometimes the most important factor influencing organizational success (Fernandez 2005 and Hennessey 1998).

It should be noted that leadership manifests itself differently in public and private sector organizations. Andersen (2010) argues that public managers differ from private managers in leadership style, decision-making style, and motivation profile. Unlike their private sector counterparts, public sector managers are responsible for administering public policy, are held accountable for their actions and performance by public bodies and oversight committees, and there is a lack of market structure. There are numerous reasons for the lack of scholarly research into the subject of public sector leadership. Borins (2002) contends the subtle and nuanced decision-making routines of administrative leadership are less accessible and interesting than empirical bureaucratic routines.

Van Wart (2013) notes that leaders are not the only factor influencing organizational success, follower happiness, and constituent satisfaction; however, leaders are generally significant factors and, sometimes, the most important factor (e.g., Fernandez 2005; Hennessey 1998; Kaiser, Hogan, and Craig 2008; Trottier, Van Wart, and Wang 2008). Van Wart (2013) argues that management theory is based on the idea that organizations are systems in which desired goals are achieved through the wise use of human, financial, technological, and natural resources.

Theoretical Framework

The lack of recognition in public administration literature regarding the role of senior executives in supporting innovation is an important reason to consider the use of a framework that can or has the potential to integrate innovation and leadership. Recent studies suggest there are behaviors and abilities that leaders in government need to develop and display. Trottier, Van Wart, and Wang (2008) support Bass's concepts of transactional and transformational leadership as applicable to leadership in government organizations. The authors argue that Bass has further developed his framework into a full-range leadership theory that treats transactional and transformational leadership not as end points of a single continuum, but as leadership patterns that "all leaders possess and use in differing amounts."

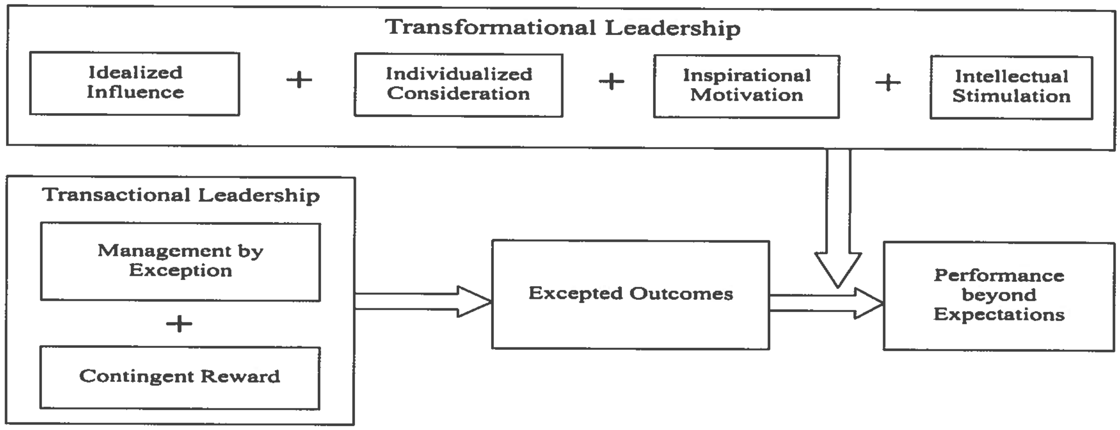
Bass and Avolio (1990) Leadership Model

A myriad of leadership and organizational management theories exist to explore leader behavior. Scholars have written extensively on those characteristics, or traits, that make a person an effective leader. The research includes personal characteristics such as height, intellect, enthusiasm and persistence (Rainey 2009). Researchers have also observed and studied behavior using questionnaires such as the Ohio State Leadership Studies, the concern for people and work through the Blake and Mouton Managerial Grid, the relationship between leadership style and organizational setting through Fielder's Contingency Theory of Leadership.

This research study makes use of a model of transactional and transformational leadership developed by Bass & Avolio (1990). Bass (1985) presented a systematic framework of leadership, which included concepts for transactional and transformational leadership behaviors. Using trait theory as a basis by looking at characteristics that make a person an effective leader in supporting innovative practices, the framework includes elements found in transaction and transformational leadership. Figure 1 shows the relationships among the operational variables found in the transactional and transformational leadership styles (see figure 1).

By showing the leader as the center of the group process, the model posits that there are positive influences among the elements to facilitate outcomes and performance. On the one hand, the model shows that transactional leadership style aligns well with the inner workings of a bureaucracy because leaders have the ability to maintain acceptable standards passively or actively by looking for mistakes and enforcing rules to avoid mistakes. On the other hand, the transformational model better aligns with organizational change and innovation efforts of a leaders because the leader is a able to arouse their followers toward a share purpose using charisma, support, encouragement, focused communication, and stimulation. The study assumed leaders displayed a varying use of these styles depending on the situation they faced.

Figure 1: Bass & Avolio, Transformational and Transactional Leadership, 1990.



Transactional and transformation leadership styles are important to consider in examining the adoption and implementation of innovation within public organizations. Trottier, Van Wart, and Wang (2008) argue that Bass' theory of leadership is a model (a hierarchy of relations) that works in a somewhat similar way to the motivational theories of Maslow (1954) and Herzberg (1968). Transformational leadership is built upon the transactional leadership style providing intellectual stimulation and individual consideration (Bass 1985). Transactional leadership is considered an appropriate leadership style for a mechanistic organization (Singer & Singer 1990), in which a mechanistic organization is considered "structured, rigid, and procedure-driven, such as a bureaucracy." On the one hand, transactional leadership appears to align with the basic tenets of a bureaucracy in that both follow set rules, guidelines and have routine expectations. Transformational leadership, on the other hand, appears to align with a more innovative leadership arraignment, in which this style would allow for an open-systems and adaptive environment where the desire is to change the organization to align with the external environment (Bass & Avolio 1993). This model will be useful in identifying, analyzing, interpreting the attitudes and behaviors exhibited by the senior executive participants for this study.

Summary

This chapter provided an overview of the scholarship around the concepts of innovation, leadership, and bureaucracy. The literature review provided a discussion on the myriad innovation definitions, challenges associated with innovation, resources needed to support innovation, and the role of the leader of an organization in supporting innovation was reviewed. There is common agreement in the scholarship that innovation is used by organizations as a management tool to identify new ways to facilitate organizational change, growth, and effectiveness. While there are various types and frameworks of innovation, very few studies have explored the relationship between leadership and the use of administrative innovation – new procedures, rules, roles, and structures in organizational management – within the routine and process-driven context of public sector organizations, particularly federal agencies.

The literature overwhelmingly documents that leadership is the most important factor of support for innovation. In looking at how innovation is managed with public sector organization, the study accepts Rainey's (2009) definition of leadership as the capacity of someone to direct and energize people to achieve goals. Very few studies have explored the relationship between executive leadership and innovation in federal agencies. Recent scholarship suggest the Bass and Avolio (1990) theoretical framework is appropriate to understanding the role of the leader in supporting innovation within the federal government. Examining the attitudes and behaviors of senior executives through the theoretical framework provided a better understanding between leadership and innovation within federal government settings. In the next chapter the researcher will examine the methodology that was used in the study in order to answer the following research questions: 1.) Why have some agencies done a good job with implementing an innovation at an economical cost and with improvement over the status quo, 2.) Under what circumstances is it being used, and 3.) Which leadership styles are more likely to support innovation?

CHAPTER 3: METHODOLOGY

Introduction

The purpose of this chapter is to discuss the research methodology that guided the data collection and analysis in the study. As previously stated, this research study explored, described, and interpreted the attitudes and behaviors of senior executives to understand what roles these played in their support for innovation. By exploring the use and support of administrative innovation within a federal agency through narrative interviews, there was an opportunity to gather rich, in-depth information that would begin to help answer why and how innovation is used as well as how others could adopt such innovative practices. In addition, the following methodology may help senior executives and their staff, public administration students and professionals, and others consider opportunities that would bridge the gap between leadership and innovation and its use in management and decision-making practices.

The qualitative approach to the methodology for this study consists of a narrative-based inquiry relying on semi-structured interviews and document review analyzed using coding and content analysis. The chapter begins with a description of the sample population focusing specifically on the participants, as well as the sampling procedures that were utilized. Secondly, the chapter discusses the overall qualitative narratological research design of the study as well as the role of the researcher. Thirdly, the researcher discusses the use of semi-structured interviews. Next, the procedures are examined, and attention is paid to the research protocol, including its strengths and weaknesses associated with conducting interviews and document review. This chapter concludes with examining remaining methodological concerns.

Description of the Population

According to OPM, the senior executive workforce is comprised of over 7,000 members currently serving across the federal government (U.S. OPM 2012). At least 66% of the population is male while 34% is female. Whites comprise the largest racial group at 80%, followed by African Americans at 10%, and the Latino and Asian groups each represent approximately 5%. Of the senior executives working specifically in the Washington, D.C. metropolitan area, over 50% represent those working in federal agencies located in the District, while 14% work in Virginia and 10% work in Maryland. According to the OPM (2012), table 3 below shows the federal agencies with the largest number of senior executives.

Table 3: Federal Agencies with Largest Number of Senior Executives

Agency	**Number Sept 2012**
Department of Defense	1,243
Department of Justice	749
Department of Homeland Security	614
Department of the Treasury	493
Department of Energy	471
Department of Health and Human Services	460
National Aeronautics & Space Administration	416
Department of Veterans Affairs	387
Department of Commerce	372
Department of Agriculture	344

NIH Senior Executives

The population under investigation in this study is 10 Executive Officers within the U.S. Department of Health and Human Services, National Institutes of Health. Tung (1979) explains that utilizing units and offices within organizations rather than the organization itself as the unit of analysis helps to gain a better picture of organizational effectiveness due to the variability within large and complex organizations. For this reason, 10 senior executives were interviewed from the following NIH organizational units— National Institute on Drug Abuse (NIDA), National Institute of Neurological Disorders and Stroke (NINDS); National Center for Advancing Translational Sciences (NCATS); National Eye Institute (NEI); National Institute on Aging (NIA); National Cancer Institute (NCI); National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); National Institute of Allergy and Infectious Diseases (NIAID); NIH Clinical Center (CC); and National Heart, Lung, and Blood Institute (NHLBI). The contrast of the 10 organizational units, as described below, provided insight on the use of administrative innovation at the federal level.

National Institute on Drug Abuse

Established in 1974, the National Institute on Drug Abuse oversees over 1,800 research grants, more than 500 full-time training positions, 262 full-time equivalent employees, and almost 200 research and development contracts. Representing 3% of the total NIH budget, with a FY 2013 annual budget of $1 billion dollars, NIDA is well-established and continues to provide scientific leadership in the U.S. and globally to achieve better understanding of substance abuse and addiction risk and the consequences of substance use disorder and develop effective ways to prevent and treat both (NIDA 2012). The NIDA Executive Officer is the administrative leader of the Office of

Management (OM), which consists of various branches of administrative management, financial management, grants management, information resource management, management analysis, acquisitions, and ethics. The leader oversees the strong collaboration between OM and the NIDA scientific community. As a result, the NIDA Executive Officer may use innovation to "attract, retain, and develop the right work force; improve administrative management programs and services that are founded on principles of efficiency, effectiveness, quality, and high ethical standards; and foster a management culture that bases evaluations, decisions, and overall direction on sound and reliable information (NIDA 2011)."

National Institute of Neurological Disorders and Stroke

Established in 1950, the NINDS mission is to reduce the burden of neurological diseases through a spectrum of basic, translational, and clinical research on the normal and diseased nervous system to complement and encourage private sector efforts. Representing 5% of the total NIH budget at $1.6 billion dollars, NINDS oversees over 2,700 research grants, 742 training positions, 512 full-time equivalent employees, and over 100 research and development contracts (NINDS 2012). The NINDS Executive Officer is responsible for operational oversight of the Institute's financial management, human resources, information technology, and administrative services. Administrative innovation could be useful in strategic and business planning, business process re-engineering, acquisitions, and workforce management (NINDS 2012).

National Center for Advancing Translational Sciences

Established in 2011, NCATS is the newest NIH Center and seeks to "catalyze the generation of innovative methods and technologies that will enhance the development, testing, and implementation of diagnostics and therapeutics across a range of human diseases and conditions (NCATS n.d)." With an annual budget of $639 million dollars, NCATS represents 2% of the total NIH budget, and oversees 142 research grants, 62 research centers, 105 full-time equivalent employees, and 93 research and development contracts (NCATS 2013). The NCATS Executive Officer is the top administrative leader of the Center's Executive Office, which consists of the offices of administrative services, intramural administrative services, financial management, information technology, and management analysis and ethics. The Executive Officer could be interested in the use of innovation in trying to build the administrative management capability of the new organization in the basic administrative and human resources functions.

National Eye Institute

Established in 1968, NEI is a long-standing Institute and seeks to "conduct and support research, training, health information dissemination, and other programs with respect to blinding eye diseases, visual disorders, and special requirements of the blind (NEI n.d.)." With an annual budget of $693 million, NEI represents 2.3% of the total NIH budget with over 1,000 research grants, 40 research centers, 241 full-time research training positions, 254 full-time equivalent employees, and 43 research and development contracts (NEI n.d.). The NEI Executive Officer is the principal advisor to the NEI Director on all management decisions including managing NEI's financial, human resource, informational technology, and procurement activities, and coordinating NEI's ethics and equal employment opportunity and diversity programs.

National Institute on Aging

Established in 1974, NIA leads a national program of research on the biomedical, social, and behavioral aspects of the aging process, including the prevention of age-related diseases and disabilities, the promotion of a better quality of life for all older Americans (NIA n.d.). With an annual budget of $1.1 billion dollars, NIA represents 3.6% of the total NIH budget with over 1,400 research grants, 78 research centers, 627 research training positions, 133 research and development contracts, and 404 full-time equivalent employees (NIA n.d.). The NIA Executive Officer oversees the Institute's business functions involving human resources, budget, ethics, travel, procurement, space and facilities, and general administration.

National Cancer Institute

As the oldest and largest Institute, NCI is the federal government's principal agency for cancer research and training and leads a national effort to eliminate suffering and death due to cancer (NCI n.d.). Operating on an annual budget of $5 billion, NCI represents the largest portion of the total NIH budget at 16% and oversees over 5,000 research grants, 256 research centers, over 1,000 research training positions, 467 research and development contracts, and over 3,000 full-time equivalent employees (NCI n.d.). As the Deputy Director for management, the NCI Executive Officer oversees the Institute's financial management, information technology, personnel, acquisitions, space, and facilities. Administrative innovation could be very useful to the NCI as it maintains an aging organizational structure and operations.

National Institute of Diabetes and Digestive and Kidney Diseases

Established in 1950, NIDDK seeks to conduct and support medical research and research training and to disseminate science-based information on diabetes, digestive diseases, nutritional disorders, and obesity, and kidney diseases (NIDDK n.d.). NIDDK operates on an annual budget of $1.7 billion dollars, representing 6% of the total NIH budget, and oversees 2,900 research grants, 93 research centers, 1,200 research training positions, 637 full-time equivalent employees, and over 100 research and development contracts (NIDDK 2012). The NIDDK Executive Officer oversees the Executive Office, which is the "focal point for leadership and oversight of the Institute's administrative infrastructure and functions, including administrative management, information technology, ethics, financial management, management and policy analysis, workforce development and planning, and technology advancement (NIDDK n.d.)." Administrative innovation could be useful in developing and implementing Institute policies and procedures for all administrative activities.

National Institute of Allergy and Infectious Diseases

NIAID was established in 1948 and is charged with "understanding, treating, and preventing the myriad infectious, immunologic, and allergic diseases (NIAID 2013)." Second behind the NCI, NIAID operates on an annual budget of $4.5 billion dollars and oversees over 4,000 research grants, 36 research centers, over 1,200 research training positions, 208 research and development contracts, and 1,900 full-time equivalent employees (NIAID 2012). The NIAID Executive Officer leads the Office of Science Management and Operations (OSMO) and advises the NIAID director and senior staff on scientific, policy, business, and administrative management of the Institute and its programs. He or she also plans, directs, and coordinates the scientific priorities for the Institute and ensures they are executed and supported through the business management and administrative functions of the Institute, including: strategic and mission planning, integration, and evaluation; development of scientific initiatives; knowledge management; budget and financial management; government relations and communications; legislative analysis and public information, including access under the Freedom of Information Act; and technology information systems support to NIAID programs (NIAID 2013).

NIH Clinical Center

Established in 1953 as "America's research hospital," the NIH Clinical Center is home to clinical research for the purpose of discovering better treatments, therapies, and interventions to patients being treated on the NIH Bethesda campus. Unlike the other Institutes and Centers, the Clinical Center operates on an annual budget of $400 million dollars which is received through a school tax that levies an assessment on Institutes and Centers based on the usage of the Clinic's clinical trial technical services, patient care and support, research support services, and professional services (Johnson and Smith 2011). The Chief Operating Officer (COO) oversees the Clinic's administration and operations including patient nutrition, facilities management, housekeeping, materials management, social work, spiritual ministry, communications, patient recruitment, training, organizational development, acquisitions, and the Edmond J. Safra Family Lodge (NIH Clinical Center, 2014). Administrative innovation is likely an operational requirement in the management of the Clinic.

National Heart, Lung, and Blood Institute

Established in 1948, NHLBI provides global leadership for a research, training, and education program to promote the prevention and treatment of heart, lung, and blood diseases and enhance the health of all individuals so that they can live longer and more fulfilling lives (NHLBI 2009). As the third largest Institute, NHLBI operates on an annual budget of $3 billion dollars and oversees 3,900 research grants, over 60 research centers, over 2,000 research training positions, over 150 research and development contracts, and 900 full-time equivalent employees (NHLBI n.d.). The NHLBI Executive Officer leads the NHLBI Office of Management (OM) in providing oversight and consultation on the business and administrative management operations of the Institute. Areas under the purview of the OM include: budget formulation and execution; human resource management; administrative policy and procedures development and oversight; Freedom of Information and Privacy Act compliance; ethics; space management; and travel and procurement services for the Office of the Director components (NHLBI 2012).

Purposeful sampling was employed to recruit participants. In a similar study, Riccucci (1995) noted the benefits of examining the role of federal senior executives—unlike state and local senior executives, those working on the federal level face a wider policy focus with broader applicability at the national level. Creswell (2009) states that "qualitative researchers select individuals who will best help them to understand the research problem and research questions." Furthermore, Anita &McJlvain (1999) argued that sampling strategies differed in quantitative and qualitative approaches because the goal of each is different. The NIH was selected because the researcher had access to all of the names and e-mail addresses for the population. There are 27 NIH Executive Officers or Associate Directors of Management managing their organization's business functions. However, of the 27, only 16 are certified members of the SES. The 9 non-SES members work for Institutes or Centers that have not been granted an SES slot by the OPM or DHHS. The researcher decided to interview 10 of the 16 as these 10 volunteered to participate in the study and the other 6 did not because of scheduling conflicts. Interviewing 10 of the 16 possible SES leaders represented a participation rate of 62.5% of the available pool of NIH SES leadership.

While quantitative research seeks to obtain a small probability sample that is representative of the larger population, thereby, minimizing cost and effort to ensure the result will be generalizable to the larger population, the intent of this study called for a more qualitative approach for depth and quality for particularity among a group of senior executives. Gilchrist & Williams (1999) state, "key informants, in qualitative studies, are not selected randomly. Random sampling, as one type of probability sampling, assumes that the characteristic under study is represented equally in a study group…on the contrary the selection of key informants represents non probability sampling, referred to as purposeful, strategic, or information-rich sampling (Gilchrist & Williams, p. 76)." Ingham (1999) argues that "a key feature of qualitative or interpretative research is that different sampling techniques pertain than the formal criteria concerning representative samples required for survey-based research."

The participants in the study are career civil service senior executives who served in their current leadership role for at least two years. The researcher assumed that two years assured the participants had sufficient time to work in their appointment as the top administrative leader within their organizations. The researcher contacted the participants directly using an internal agency listing of Executive Officers. Due to the large numbers of senior executives classified through the Office of Personnel Management in the United States, the researcher narrowed down the number of respondents in the study, and focused on a group of senior executives working at a federal agency in the Washington, D.C. area. Results of this study are not generalized to the entire SES population in the federal government; therefore, the researcher focused on senior executives at the NIH for manageability.

These Institutes and Centers represent a diversity of organizations within NIH that distribute grant funding or provide patient care in efforts to educate and improve the biomedical research of the Nation. The researcher deliberately set out to explore the unique perspectives of new and seasoned senior executives who managed small, medium, and large agencies. See table 4 for a summary of the participating agencies.

Table 4: Summary of Participating Federal Agencies

Agency	Established	Number of Employees	Budget
NIDA	1974	262	$1B
NINDS	1950	512	$1.6B
NCATS	2011	105	$665M
NEI	1968	254	$700M
NIA	1974	404	$700M
NCI	1937	3,000	$1.1B
NIDDK	1950	637	$5B
NIAID	1948	1,900	$3B
NIH CC	1953	N/A	$400M
NHLBI	1948	900	$3B

Research Design

The research design for this study was a qualitative narrative strategy of inquiry relying on a collection of interviews and document review analyzed using coding and content analysis. Borins (2012) notes "that such a methodology relies on an interview process coupled with content analysis of the narratives that result (p. 167)." The researchers invite selected subjects to "tell their stories" which are transcribed, analyzed, and re-presented by the researchers (Borins 2012). It is a method that overlaps with the traditional case study, yet presumes a very different role for the interviewer or authors in the narrative he or she elicits (Borins, 2012, 167). Clandinin and Connelly (2000) proclaim that narrative inquiry is a way of understanding and inquiring into experience through "collaboration between researcher and participants, over time, in a place or series or series of places, and in social interaction with milieus (p. 20)." Creswell (2009) states "narrative research is a strategy of inquiry in which the researcher studies the lives of individuals and asks one or more individuals to provide stories about their lives (p. 13)." This information is then retold by the researcher into a narrative chronology, and in the end, the narrative combines views from the participant's life with those of the researcher's life in a collaborative narrative (Creswell, 2009, 13).

The narrative strategy of inquiry was selected to advance understanding and report the stories of senior executives at the federal level on their use of administrative innovation. Semi-structured interviews represent one of the ways in which this social science is conducted. Creswell (2009, 181) defines qualitative interviews in three parts:

- Researcher conducts face-to-face interviews with the participant—by telephone, or engages in focus group interviews involving unstructured and generally open-ended questions that are few in number and intended to elicit views and opinions from the participants.

- The investigator may collect qualitative documents, including public documents (e.g., official reports) or private documents (e.g. letters, emails, etc.).
- The investigator may take audio and visual materials, photographs, art objects, videotapes, or any forms of sound.

By using interviews, one is able to advance the understanding of the use of innovation in a federal agency. Seidman (2006) expresses several concerns or challenges with the interview data collection procedure. These concerns include sufficient funding to support the study's travel and transcription requirements, time needed to schedule interviews, and follow up communications with the participants. Despite these concerns with the particular design, King (1994) argues "the qualitative interview is a highly flexible method, it can be used almost anywhere, and it is capable of producing data of great depth (p. 14)."

Narratological Strategy of Inquiry

The study used a narratological research method and design to explore the stories of senior executives and their engagement with administrative innovation. Drawing on the work of Borins (2012), the researcher uses narratology to refer to the study of public administration stories, in particular practitioner-generated narratives about organizational structures and management strategies. Borins (2012) defines why it is appropriate to apply narratology to the study of innovation in two parts:

- 1.) Innovations are a type of organization change process, and thus take place over time, facilitating the creation of narratives.
- Much of the existing literature (Borins 1998 and Walker 2008) has been quantitative but has not taken a narratological approach.

Past inquiries into the subject are rooted and limited in a positivist worldview relying on quantitative studies (Crum 2006). Such an approach does not lend itself to the opportunity for greater understanding for this researcher's engagement with innovation. Since the goal of this study was to understand why participants adhere to their preferred leadership style in supporting innovation, a narratological approach is fitting for fostering a direct relationship where the research can probe any unclear statements for clarification, offer follow up questions, and ask individuals to explain their ideas in more detail or to elaborate on what they have stated (Creswell 2009).

Borins (2012) states that narratology has been the subject of earlier public administration research and later works. For example, Waldo (1968) published a monograph about novels dealing with public administration issues published during the 1950s and 1960s. Later works include Roe's (1994) Narrative Policy Analyis, Maynard-Moody and Musheno's (2003) Cops, Teachers, Counselors: Stories from the Front Lines of Public Service, and Ospina and Dodge's (2005a, 2005b) three-part series in Public Administration Review (Dodge, Ospina, and Foldy 2005). All these works represent and advocate taking ''the narrative turn.''

The narratological method utilized in the study provides a rich account of the work and environments in which a group of NIH senior executives operate. Although quantitative methods would allow for a description and possible explanation of the participants' leadership through pre-established survey instruments, it would not be suitable to explore, understand, and gain deep insight into the leadership styles and experiences of the participants from their perspective (Creswell 2009). A qualitative, narrative-based approach allows the researcher to take a closer look at the career paths and personal lives of these senior executives, and this in turns tells us a good deal about what makes these executive lead their organizations in supporting administrative innovation. This approach allows the researcher to discover commonalities among the senior executives and help us to understand better the complexities of organizational behavior, and the tools, skills, and strategies senior executives employ in their efforts. This particular method provides useful insights into the accomplishments of the senior executives and helps to explain the variation and differences in the executives' personal experiences and in the importance of those experiences. Gilchrist & Williams (1999) state "key informants, in qualitative studies, are not selected randomly."

The qualitative narratological method used in this study is closely aligned with that articulated by Roe (1994). The researcher assumes a directly authorial role in the construction of "meta-narratives" or method for pooling together and analyzing the 10 senior executive narratives. The narratives act as mechanism to allow for the communication of the interplay between the leader and innovation helping to bring an understanding of the senior executive world of administrative innovation. Borins (2012) states that the narrative approach is a means of giving voice to perspectives (stories) positivist methodologies silence (p. 167). More of interest to the researcher is that for Roe (1994), these "meta-narratives" have a functional value: although they cannot reduce uncertainty, they can facilitate decision-making by revealing, or creating, common ground among disputants or senior executives (Borins, 2012, 169). The senior executives' narratives are reconciled and another story is told about the individual stories.

Role of Researcher

Qualitative research is interpretative research, with the inquirer typically involved in a sustained and intensive experience with the participants, and this introduces a range of strategic, ethical, and personal issues into the qualitative research process (Locke et al., 2007). The researcher served as the key instrument for collecting data—asking questions and observing behavior. This researcher's perceptions regarding the use of innovative administrative practices at the federal level is based on personal experiences as a federal employee within the NIH. The researcher believed that the organizational culture plays an important role in why and how innovation is used within the various NIH Institutes and Centers. This belief is based on the researcher's experience in using innovation to improve management decision-making and practices in various administrative positions.

Hired through a highly competitive post-graduate administrative fellowship, the researcher worked for four and a half years as an NIH employee, three and a half of those years as budget analyst at the National Eye Institute (NEI), and a year as an administrative officer at the National Cancer Institute (NCI). The researcher currently works as an administrative officer at the National Center for Advancing Translational Sciences (NCATS), NIH's newest Center. Leveraging the practical experience acquired as a budget analyst, the researcher provides leadership and management over a range of administrative services to NCATS scientists – human resources liaison, financial management, procurement, travel, space and facilities – all in support of the NCATS Office of the Director (OD), Division of Clinical Innovation (DCI), Office of Policy, Communications, and Strategic Alliances (OPCSA), and Office of Rare Disease Research (ORDR). A source of potential bias in the study design was SES members that are supportive of innovation might be more likely to participate in the study.

Semi-Structured Interviews

Creswell (2009) found qualitative interviews are useful for three important reasons: 1.) when participants cannot be directly observed; 2.) participants can provide historical information; and 3.) allows the researcher control over the line of questioning (p. 179). There are four ways to design qualitative interviews. The first type is a face-to-face, one-on-one, in person interview. The second type is a telephone interview, through which the researcher interviews by phone. A focus group is the third type of design, through which the researcher interviews participants in a group. The last type of design is e-mail, through which the researcher uses the internet to interview the participant through e-mail communications (Creswell, 2009, 179). The type of interview design used for this study was the face-to-face design in which a predefined range of questions were addressed in the interview but also allowed the respondent to initiate new topics or expand on relevant issues (Payne, 1999, 89-90).

A qualitative approach using semi-structured, face-to-face, open-ended interviews guided this research study. Remler & Van Ryzin (2011) argue that in-person interviews are generally favored as they show respect, establish rapport, allow for visuals or hand-outs, and capture body language and voice tone (p.66). Semi-structured interviews allow the participants to respond in their own words and encourage detailed and in-depth answers (Remler and Van Ryzin 2011). In addition, the interviews ensured each interview covered substantially the same topics while being a flexible tool (Remler and Van Ryzin 2011).

Procedures

The semi-structured interview process allowed the researcher the opportunity to explore, identify, and assess each senior executive's attitudes and views of innovation. The interview protocol derived from the researcher's knowledge gained from the literature review. King (2004) suggested that "the research questions focus on how participants described and made sense of particular elements of their lives (p. 14)." The interview analysis involved collecting the raw data from 10 senior executives from NIH who were interviewed face-to-face, organizing and preparing the data for analyzing, reviewing all of the information, transcribing, and coding it appropriately, identifying themes and descriptive information, and interpreting the meanings behind the emerging themes.

Once revisions were made to the interview guide, the application for the University of Baltimore's Institutional Review Board (IRB) review was submitted on December 20, 2013. The interview guide can be found in Appendix A. The IRB designated the research proposal as exempted and concluded that the protocol for this research study posed minimal risk and discomfort to participants. As stated before, purposeful and even convenience sample was used to identify potential interview participation. Convenience sampling involves selecting participants that are easy to reach with the least amount of time and cost incurred by the researcher (Marshall 1996). E-mail invitations were sent to select Executive Officers and their staff requesting participation. The invitation e-mail can be found in Appendix B. Participants were also invited to participate in the interviews via word of mouth in meeting settings. A total of 10 participants were interviewed for this study.

As noted by Harris and Roberts (2003), choosing a venue needs to include a consideration of potential social and physical barriers to participation. Meetings were scheduled individually with each respondent, at the offices of each Executive Officer on the NIH campus in Bethesda, MD. In order to protect the identity of respondents involved in this study the researcher assured confidentiality and anonymity. As a result, the researcher used pseudonyms to assure the confidentiality of respondents.

Data Collection

To describe and understand NIH senior executives' attitudes and behaviors towards innovation, an interview protocol guided the interviews with semi-structured questions for asking questions and recording answers of the participants. Creswell (2009) suggests using an interview protocol to record observational data including physical setting, accounts of particular events, reflective notes, and demographic information about the time, place, and date of the field setting where the observation takes place (p.182). As stated before, all interviews were conducted face-to-face in the offices of the participants at NIH in Bethesda, MD. The semi-structured interviews took place over a two week period between January 20, 2014 and January 31, 2014 in sessions lasting between 30-60 minutes. The researcher recorded interviews using a tape recorder.

Interview Protocol

The interview protocol component of the data collection process allowed the researcher to gather in-depth, rich information on the views and use of innovation and the factors that influence use. The interviews provided insight into the patterns and themes that emerged during the sessions. The protocol for the interviews consisted of the following format as identified by Creswell (2009, 183): a heading that includes the date, place and interviewee, standard procedures for the interviewer to maintain consistency, space between the questions to record responses, and a thank you statement for the interviewee's participation and time. The interview protocol can be found in Appendix C. Written notation by the researcher and audio voice recording were permitted by the participants and used as the recording mechanisms in all interview sessions.

The interviews consisted of 20 questions and were based on the constructs of personal background, leadership style based on Bass and Avolio's (1990) model of transaction and transformational leadership, and administrative innovation. Each participant was asked to sign a consent form which informed them of their rights as a participant. The consent form can be found in Appendix D. The researcher began the interviews with brief, introductory information regarding the purpose of the study before each interview session commenced. The researcher documented the name of the participant, date of the interview, associated Institute or Center, and position of the interviewee. At the conclusion of each interview, the researcher thanked each participant for their time and participants were invited to review their transcripts the next day and to be contacted for an interview after the data collection process concluded. The participants approved of their transcripts and did not opt for a follow up interview. The participants were told the study is strictly voluntary and that all responses would be confidential.

The interview questions were heavily influenced and developed from a widely accepted interview instrument, the Multi-factor Leadership Questionnaire (MLQ). The study's questions around leadership approaches – transactional and transformational – were adopted from the MLQ. This included asking each individual leader how they perceived of their leadership style and the motivating factors they believed influenced their style. However, the study's questions around the leader's background in the SES and views towards innovation were modified by the researcher to get an understanding of the degree to which a leader's background formed their behavior in support of innovation. Developed by Bass and Avolio (1990), the MLQ measures a broad range of leadership types – notably transactional and transformational leadership – by reflecting on leadership types of leaders from passive leaders, to leaders who give continent rewards to followers, to leaders who transform their followers into becoming leaders. In addition, probes were asked with follow up questions to allow each senior executive the opportunity to further explain what they said about their role as agency leaders in supporting administrative innovative practices.

Data Analysis

The interviews were useful as the open-ended questions allowed the senior executive participants to speak freely and provide historical information on their perceptions of innovation in each one's workplace. As noted by King (2004), "the goal of the qualitative research interview is to see the research topic from the perspective of the interviewee, and to understand how and why they come to have this particular perspective." Descriptive analysis was conducted and reported for each senior executive interviewed using coding and content analysis. Remler and Van Ryzin (2011) note "the process of content analysis involves tagging the text or other qualitative data using a system of categories, or coding scheme, and enables sorting, counting, and other qualitative analysis without any quantitative analysis." Demographic information was recorded for age group, length of government service, SES length of service, gender, and educational attainment.

Coding and Content Analysis

The interviews were audiotaped and transcribed and coded using computer software programs. Once each interview concluded, the researcher transcribed it using The Dragon Natural Speaking 10: Speech Recognition Software. Using Dragon software, the researcher performed analysis of the data and used the following coding process to place the data into categories from which the themes of the research emerged. The coding process consisted of analyzing and combining data collection during the study to mark related ideas that became themes to be grouped into categories.

After grouping themes including the degree of administrative discretion, length of a leaders' length in the SES, transformational leadership, and organizational culture, the researcher reviewed the themes and categories, which helped formulate codes, making the data easier to examine for similarities and keywords to compare. Similarities began to form and patterns were identified during this process. The four veteran leaders, who had acquired a longer tenure in the government and in the SES, were more likely to exercise a greater degree of administrative discretion, use transformational leadership, and work within a collaborative organizational culture in the NIH context. The similarities across the veteran leaders allowed them to adopt and implement more innovations within this organizational dynamic.

The researcher applied Bass and Avolio's (1990) leadership theory to explore, identify, and produce descriptions and explanations of senior executive leadership practices in support of administrative innovation. The theory consists of four dimensions of transformational leadership: idealized influence (charisma), inspirational motivation, intellectual stimulation, and individualized consideration; three forms of transactional leadership: contingent reward, active management by exception, and passive management by exception. Descriptive coding based on the research questions and theoretical framework was used to identify emerging themes. All of the aforementioned steps were taken to bring meaning to the text.

Reliability and Validity of Interview Tool

Creswell (2009) states that qualitative validity refers to the researcher's review of accuracy of the results based on using certain procedures and strategies such as triangulation of information, member checking, and peer debriefing. Qualitative reliability indicates the researcher's approach is consistent across different researchers and different projects (Creswell 2009). This study ensured both validity and reliability by minimizing errors and biases through the creation of the interview protocol to log, monitor, and review the interview data that were to be collected and analyzed. The study made use of documents to corroborate the interview findings. Written documents included: 1.) administrative strategic plans; 2.) operational plans; 3.) presentations; 4.) Congressional budget justifications; 5.) and others to allow for further analysis. Other reliability and validity procedures were also utilized such as clarification of biases and presentation of negative or discrepant information to strengthen the findings and analysis.

Document Review

In addition to the interviews, a review of publicly available documents from all 10 Institutes and Centers was conducted to support the findings from the interview data. This review helped to strengthen validity of the interviews. This review assessed documents and reports for descriptive data as well as themes to support the analysis of the study. The following documents were reviewed from all 10 Institutes and Centers and from central NIH offices: 1.) 2013 Congressional Budget Justification; 2.) 2011-2013 NIH Administrative Strategic Plan; 3.) 2012 Implementation Plan; 4.) 2013 Clinical Center Strategic and Annual Operating Plan; 5.) 2010-2012 NIH Office of Management Accomplishments Report; and 6.) 2010 Report on Bridging NIH Organizational Boundaries; 2012-2013 Institute and Center presentations on innovation; 7.) 2014 All Hands Meeting presentation; and 8.) 2012 Office of Management All Hands Meeting presentation on Operating Principles.

Strengths and Limitations of Methodology

There are strengths and limitations associated with all data collection methods. Conducting interviews – whether face-to-face, by telephone, or via focus groups – are advantageous when direct observations cannot occur and there are opportunities to gather supporting historical information (Creswell 2009, 179). The strengths associated with interviews include gaining a generous amount of information quickly, the ability to immediately obtain clarification regarding responses, and the opportunity to get more in-depth responses to questions. The limitations or weaknesses in using interviews include interviewee cooperation, lack of experience with conducting interviews by the researcher, the time in scheduling interviews and follow ups, and the quality of the data can be questionable, and it requires money to finance any travel and transcription requirements.

Document collection provides an opportunity for the researcher to obtain written text from the study's participants. Document review is a useful tool because it is unobtrusive and more convenient to the researcher. The limitations of using this tool include the fact that the documents may not be publicly available, may require transcription, and holds the potential for inaccurate information (Creswell 2009, 180).

Risks, Anonymity, and Benefits of the Study

This research study involved minimal risk to participants. The researcher requested voluntary participation from the NIH community of a purposeful selection of Executive Officers. To minimize risks, the researcher obtained a copy of the UB IRB presentation on Responsible Conduct in Human Subjects Research and applied the guidance at every stage of the study. The researcher provided clear instructions to participants through careful wording of all communications. Additionally, the following safeguards were employed to protect each participant's rights: 1.) the research aims were clearly communicated orally and in writing to ensure they were understood; 2.) written permission was received through a signed informed consent form; 3.) a research exemption was filed and granted by the University of Baltimore's Institutional Review Board (IRB) prior to the conduct of research to assure compliance with federal and state regulations; 4.) each participant was informed of all data collection devices and activities; 5.) transcriptions and interpretations of the data were shared verbally and reports were made available; 6.) the decision regarding the participant's anonymity was decided by the participant. All responses were kept confidential.

Summary

In summary, this chapter provided an overview of the methodological steps utilized to achieve the study's objectives. By conducting a qualitative narratological study analysis based on semi-structured interviews and document review, the study assisted and strengthened the researcher's efforts to provide recommendations that support and encourage the use of administrative innovation at the federal level. Understanding the leadership styles, views, attitudes, and behaviors that support innovation may help public administrators, scholars, and students, including federal senior executives and staff, determine ways to enhance the linkage between leadership and innovation in federal agencies.

CHAPTER 4: RESULTS AND FINDINGS

Introduction

This chapter provides the results and findings for the narrative and descriptive analyses from the NIH SES semi-structured interview data and document review. The first portion of the chapter provides a detailed description of the steps involved in the data analysis portion of the research study. The chapter focuses on the study's guiding research questions. The questions were: a.) Why have some agencies been successful with implementing an innovation at an economical cost with improvement over the status quo? b.) Under what circumstances it is being used? and c.) Does leadership style affect the support for innovation, and if so, which ones? In order to investigate these research questions, 20 interview questions were reviewed. The researcher will present common themes that emerged from the data analysis. Chapter 4 presents the data analysis obtained from the interviews. The data collection and analysis processes are discussed with attention to the demographic data, synopsis of the interviews, and the findings generated by the data analysis.

This study applied the literature review and the Bass and Avolio (1990) transactional and transformational leadership framework to identify the leadership styles, views, attitudes, and behaviors of senior executives interviewed. This study utilized the narratological research approach in the process of gathering information from the participants in the form of storytelling. Clandinin and Connelly (2000) noted that humans are storytelling organisms who, individually and collectively, lead storied lives. Thus, the study of narrative is the study of the ways humans experience the world. The narrative research design was the most effective method to describe the senior executives' experiences, views, and attitudes of innovation in the federal government. As previously stated, narratives focus on individuals by reporting individual experiences. This study's data collection and analysis processes consisted of the collection of information to explore a misunderstood or well-understood phenomenon in leading innovation in government. This design emerged from a range of academic disciplines including biology, psychology, anthropology, and medicine. Borins (2012) argues that a narratological approach to the study of innovation is appropriate because "innovations are a type of organizational change process, and thus take place over time, facilitating the creation of narratives (p. 171)."

Creswell (2009) states that the qualitative data analysis process consists of: a.) collecting the data, b.) transcribing the data, 3.) reading the data, 4.) coding the data into text, 5.) developing themes from data (p.185). The qualitative data analysis process began after the interviews were completed and the semi-structured interviews were transcribed verbatim using The Dragon Natural Speaking 10: Speech Recognition Software, a voice-to-text computer software program. See figure 2. Dragon was used to transcribe the interviews from tapes to Word documents.

Figure 2: Coding of SES Interviews

SES Interviews

Name	Nodes	References
Transcript - BigScience05	10	16
Transcript - DataDriven04	23	256
Transcript - Faith01	20	36
Transcript - General07	5	8
Transcript - Inspirational03	13	26
Transcript - Jackie10	12	16
Transcript - Lindblom02	17	31
Transcript - OprahWinfrey09	10	14
Transcript - Sage08	17	25
Transcript - Seasoned06	15	26

The transcription was completed after each interview. The researcher compared the taped interviews with the computer generated transcripts produced by the Dragon 10 software. The data were coded by pseudonym and sequence code to identify each participant anonymously. Each pseudonym was followed by a sequence code starting from 01 to 10. A notebook and binder was used to write and maintain the interview responses according to each participant sequence code. After completing the data coding and attempting to make sense of the data, the codes emerged into broad themes using NVivo 10 (Creswell 2009).

According to Creswell (2009), the narrative strategy of inquiry provides a detailed description of an individual's life experiences (p.193). Once the narratives were transcribed, the data were code and transcribed using the NVivo 10 software, a highly respected and widely used qualitative data analysis computer software. See figure 3. With the assistance of the NVivo 10 software, emerging themes were developed from the phenomenon of the senior executives' views and attitudes of administrative innovation in each of their federal agencies. The data collected from the participants' interviews were developed into core themes from each interview question. The themes were grouped by major category with sub-categories that followed. The coding process consisted of analyzing and combining data collection during the study to mark related ideas that became themes to be grouped into categories. After grouping themes, the researcher reviewed the themes and categories, which helped formulate codes, making the data easier to examine for similarities and keywords to compare. Similarities began to form and patterns were identified during this process.

Figure 3: Content Analysis of SES Interviews

Nodes

Name	Sources	References
Participants	10	126
Innovation	9	46
Role of SES	5	7
Important	3	6
Created or Mandated	6	8
Characterization	7	11
Definition	7	7
Strategy	5	7
Background	10	33
Mobility	2	3
Experiences	3	4
Choose to be SES	6	8
Length of Service	10	10
Unique Quality	3	3
Role of SES	5	5
Leadership	7	17
Leadership Style	6	8
Greatest Strength	1	1
Leadership Learning	3	3
Motivating Factor	3	3
Values	2	2

Demographics of Senior Executives

The demographics of the study present very interesting profiles of the group of senior executives. Of the 10 senior executives, women comprised 60% of the respondents while men comprised the remaining 40% (see table 5). It should be noted that 3 of the 4 male senior executives were under the age of 50 while a majority of the 6 women were over the age of 50 (see table 6). Half the respondents belonged to the 50-59 age grouping while 30% were in the 40-49 age range, and the remaining 20% represented the 60-69 age grouping (see table 6). Figure 4 shows that all the participants had earned advanced degrees in business administration (40%), general administration and policy (30%), and other graduate degrees in social work, public health, and a doctoral degree. Figures 4 and 5 reveal the senior executives of the larger Institutes and Centers (e.g., NCI, NHLBI, and NIAID) received more federal funding from Congress in Fiscal Year 2013 (the period covering October 1, 2012 – September 30, 2013) and approval for more hiring slots for federal employees. According to Figure 5, 80% of the participants have worked over 21 years of total government service; however, only 30% of the participants have served 16 or more years as a senior executive. Overall, the participants are not comprised of individuals who have served in the elite corps for a substantial period of time.

Table 5: Gender of Senior Executive Participants

Gender	Number of Participants	Percent of Participants
Male	4	40%
Female	6	60%
TOTAL	**10**	**100%**

Table 6: Age Range Senior Executive Participants

Age Range	Number of Participants	Percent of Participants
40-49 years of age	3	30%
50-59 years of age	5	50%
60-69 years of age	2	20%
TOTAL	**10**	**100%**

Figure 4: Educational Attainment Level of Senior Executive Participants

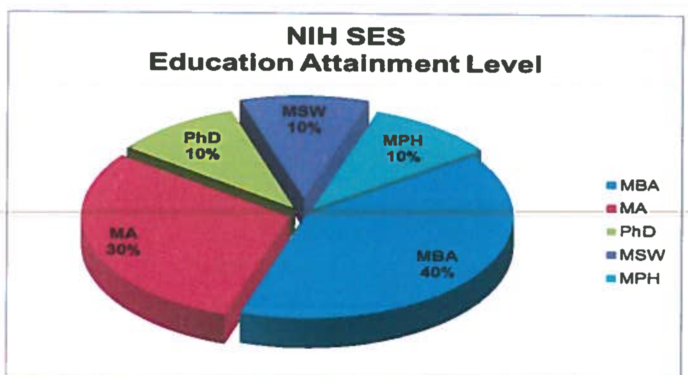


Figure 5: Number of Full-Time Equivalent Employees (FTEs)

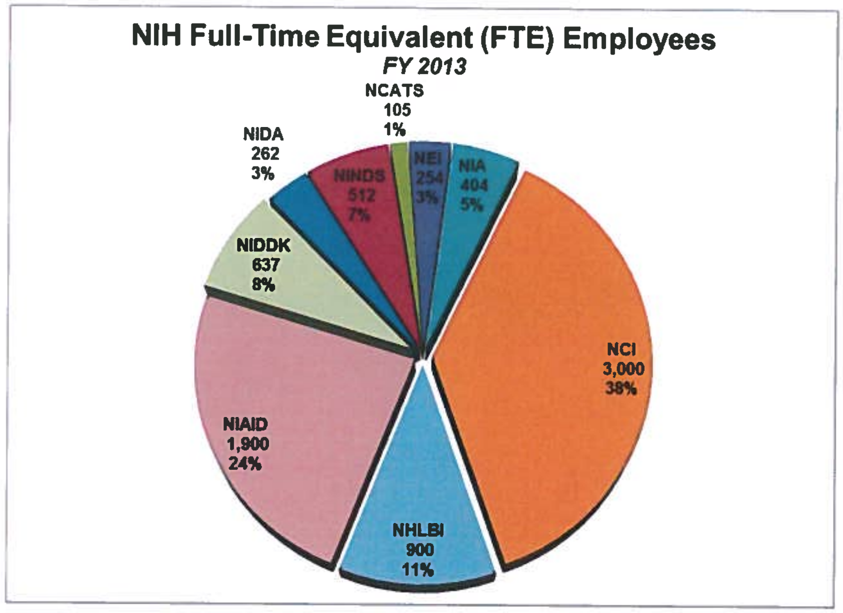


Figure 6: Size of Agency Budgets

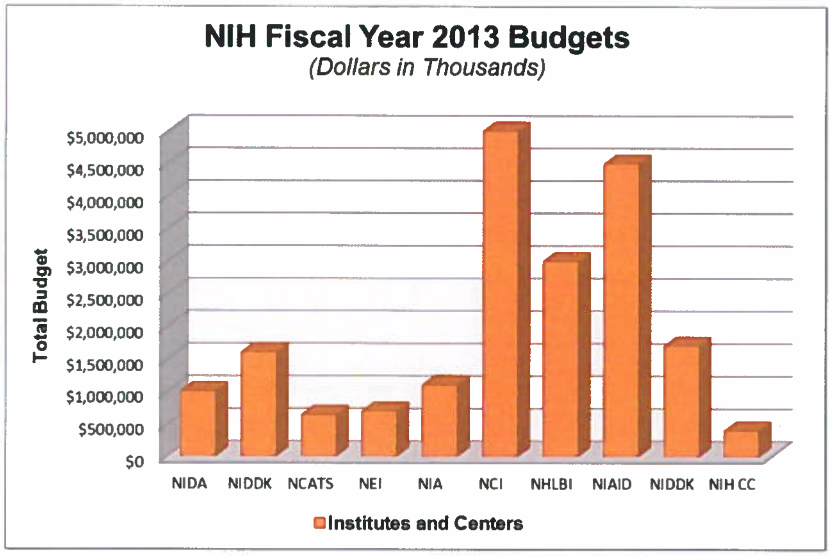
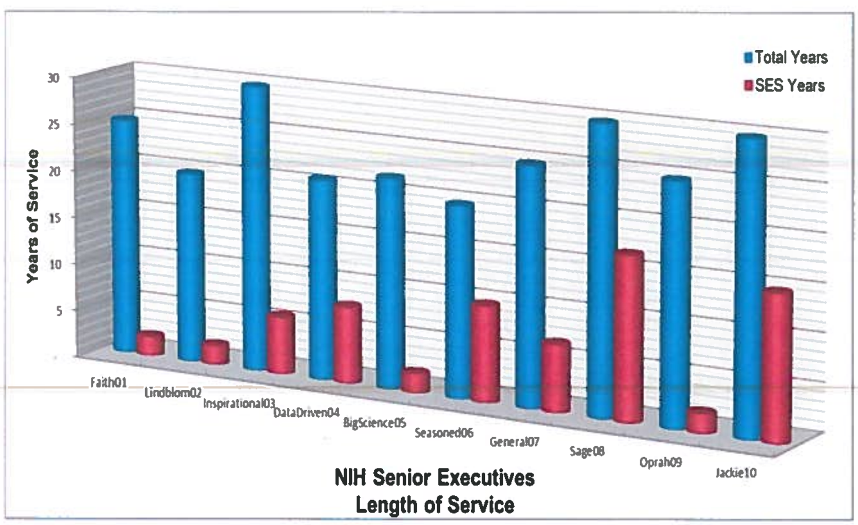


Figure 7: Length of Service – Total Government and SES Years



Personal Backgrounds of Senior Executives

Although the group of senior executives represented a small sample of the NIH SES community, the participants were very diverse in their professional backgrounds. The researcher categorized the participants into three primary leader groups or classifications: 1.) the outsiders, 2.) the new breed, and the 3.) the veterans.

"The Outsiders"

Participants Lindblom02, Faith01, and General07 are all newly minted female senior executives who are new to the NIH within the past two years. They represent the "outsiders," or a unique group with the perspective of not having climbed the leadership ladder within the NIH SES community. All had previous experience within other operating divisions within the Department of Health of Human Services (DHHS), including the Centers for Disease Control (CDC), Food and Drug Administration (FDA), and Health Resources and Services Administration (HRSA) but had never worked at the NIH. Participant Lindblom02 started her career in science as a statistician while Participants Faith01 and General07 acquired previous experience in the U.S. military – both serving in the Air Force. Both Faith01 and General07 believed their military experiences prepared them for the rigors of SES assignments. They re-told how they learned their most memorable leadership lessons and first encounters with the use of administrative innovation in their engineering, informational technology, software standardization, and process improvement work in the armed forces. Both leaders credited the military with introducing them to the concept of a "learning organization," the notion that an organization should constantly assess how well things are working and address those areas were improvements are needed.

"The New Breed"

Participants DataDriven04, BigScience05, and Seasoned06 all represent a newer generation of senior executives at the NIH. Unlike the "outsiders," the new breed rose through the ranks of leadership all at NIH. They are male and significantly younger than their older veteran counterparts and bring a fresh perspective on the role of senior executives to use data to drive decision-making. The focus among this group is quite ambitious and they view executive leadership as a means to "do big things." Seasoned06 is the only member of the group that started a senior executive assignment at NIH and later moved across the government – first to the Office of Personnel Management and subsequently to the U.S. Department of the Treasury before returning to NIH. DataDriven04 and BigScience05 began their careers Presidential Management Interns (PMIs), which is a leadership development program created in 1977 designed to groom graduates of master's or doctoral-level programs for careers in public service. Of interest to the researcher is the creation of the PMI in 1977 which provided the training and development to launch the careers of DataDriven04 and BigScience05 into the SES, which was created a year later in 1978.

"The Veterans"

Participants Inspirational03, Sage08, OprahWinfrey09, and Jackie10 all represent the older or veteran NIH senior executives. Similar to the new breed of senior executives, the veterans began their careers at NIH and were promoted progressively into more senior level administrative careers. The group is mostly comprised of women with a variety of backgrounds in business, nursing, public health, and social work. The average years served in the SES among this group is 10 years. The interviews with these senior executives reveal they all bring their backgrounds to bear in leading their organizations. It should be noted that Jackie10 is unique in that she is not only a senior executive but a chief operating officer of the NIH Clinical Center, known to the outside world as "America's Clinical Research Hospital." The majority of the veterans started working at NIH as administrative officers and only Inspirational03 aspired to join the SES among the group.

"I Did Not Choose the SES"

The most striking characteristic of this sample of participants is the fact that many senior executives indicated they did not intend to become SES members but were "drafted" or encouraged to pursue the SES by former supervisors and other colleagues. While the majority of the participants have over 21 years of total government service, over 90% of the participants have served less than 15 years in the SES. Participant BigScience05 stated he joined the SES because it was gateway to joining important agency-wide or trans-NIH committees that were not open to non-SES Executive Officers. This implies the SES group at NIH is exclusive and highly selective within the NIH administrative community. Participant Faith01 was looking for a career promotion that would allow for a healthy balance between work and family obligations and the SES provided for this balance. Only a small portion of the participants (Datadriven04, Inspirational03) aspired to enter the SES because of altruistic reasons to work at the highest pinnacle of federal service.

"Very Few Senior Executives are Mobile across Government"

The majority of senior executives do not leave their posts for other SES assignments outside of NIH. Currently, the SES program is under scrutiny by Congress for its lack of mobility across the government as was the intent of the program when created in 1978 by President Carter. Participants Faith01, Lindblom02, and Seasoned06 are the only executive officers who have come to NIH after serving in a previous SES role. For those participants who have experience working across government, they did so out of a personal curiosity to develop professionally as part of experiential learning managing different public organizations. It should be noted that Participants Faith01 and Lindblom02 were not previous employees of the NIH while Seasoned06 wanted to come back to the familiarity of the NIH culture. All three senior executives perceived mobility as a vehicle for more professional development. The majority of the participants have not left their SES posts because they strongly support the NIH mission, have become familiar with the NIH organizational culture, and are satisfied with the way things work in their agencies.

"Chief Evangelist for Good Management"

The work of senior executives varies across the NIH; however, there are common themes of duties that are shared among the participants. Participant Seasoned06 donned the moniker as the "Chief Evangelist for Good Management," suggesting that his role as the agency's top administrator is to espouse the virtues of efficiency, effectiveness, transparency, and accountability in public management among direct reports. The participants commonly cited overseeing their agency's general administration, financial management, informational technology, technology transfer, inter-agency collaborations, acquisitions and procurement, human resources, ethics, Freedom of Information Act (FOIA) requests, management analysis, space and facility operations, and risk management programs.

Participant Jackie10's role as the Clinical Center's Chief Operating Officer, makes the scope of her assignment more expansive and intricate than the other senior executives. In addition to the traditional executive officer administrative duties, she is responsible for oversight of the hospital's planning and development of a strategic plan and clinical process management support functions, including patient care, materials management, housekeeping, social work, admissions, family and guest relations, and hospitality. Participant BigScience05 stated his role was to "facilitate operational excellence," while participants General07 and Jackie10 proclaimed they were responsible for "supporting the science" and participant Lindblom02 strives to figure out how to "make the science work."

Leadership Styles of Senior Executives

"Getting Things Done"

There was a shared belief among the senior executives that they were effective at getting things done in government. Working in a bureaucracy the size of NIH can be challenging to oversee policy implementation given the scope and scale of the agency's mission, committee decision-making structure, and organizational culture. When asked about the qualities that contributed to their success, the participants shared a common theme of being "decisive." Most participants expressed the view that the senior executive as the leader of the agency needs to be center of the group processes. In order to get things done within their agencies, the senior executives, particularly the "outsiders," professed a deep belief that the leader must motivate their followers in exchange for expected performance of work duties (which is similar to Bass and Avolio's transactional leadership model). The new breed group of executives aspired to do big things but attempted to do so by maintain rules and actively enforcing routines. The veteran senior executives appeared to tailor their approaches based on charisma, human relations, and creative problem-solving – all of which aligns with transformative leadership (see table 7). The researcher found that while most senior executives perceived their leadership styles as transformational, their views and behaviors actually revealed differences based on their leader classification—whether as an outsider, new breed, or veteran.

Table 7: Summary of Leadership Behaviors and Themes

	Behavior	Style
OUTSIDERS – *"Be Incremental"*		
Faith01	Reward routines	Mixed
Lindblom02	Reward incrementalism	Mixed
General07	Reward routines	Mixed
NEW BREED – *"Enforce Discipline but Do Big Things"*		
DataDriven04	Maintain standards	Lean Transactional
BigScience05	Maintain standards	Lean Transactional
Seasoned06	Actively enforce routine	Lean Transactional
VETERANS – *"Know Thyself" and "We're in this Together"*		
Inspirational03	Open-minded, coaching	Transformational
Sage08	Charisma, stimulation, learning, vision	Transformational
Oprah09	Human relations, problem solving	Transformational
Jackie10	Adaptable, charisma	Transformational

"Be Incremental"

The transactional model was most pronounced and evident among the "outsiders" as they told of the challenges they encountered in attempting to be transformational upon entry in NIH. They all faced initial resistance to their ideas and leadership styles within and outside of their agencies. The outsiders were accustomed to leading big change management efforts on a range of services but quickly realized this approach was not conducive for leaders new to the NIH organizational culture. Participant Lindblom02 stated, "I quickly learned that an incremental approach to leadership was the best approach within the silo structure of NIH." Participant Lindlbom02 discussed her upbringing in a large family and how it impacted her leadership style in building coalitions which she says it useful at NIH. "Since coming to NIH, I've had to tone down my desire to be transformative because I figured out that to be a successful change agent at NIH is to be collaborative, says participant Lindblom02." Given their experiences with transformation in the military, participants Faith01 and General07 also desired to transform their business rules and systems, but they, too, have accepted a more active transactional approach to leading their organizations to enforce routines of process management based on expected outcomes. These two executives use information collected through a strategic planning process to gauge work performance of units. Disciplinary actions will follow according to performance. Employees are then rewarded contingent on acting in accordance with these behaviors.

"Enforce Discipline and Do Big Things"

The new breed of senior executives expressed both transactional and transformational leadership views in leading their agencies. Participant DataDriven04 stated, "my leadership style involves both transactional and transformational leadership depending on the issues." He continued, "there are times where I need to intervene in order to get things moving in a particular area such as procurement, but most of the time, I try to focus on the larger administrative agenda." Participant Seasoned06 claims that he is the "mayor of his Institute, in that he has to actively force discipline across the agency while making highly level policy decisions that tie into the larger administrative enterprise." Participant BigScience05 views were similar to those of participant DataDrive04 and Seasoned06 in that he also explained there were times he needs to intervene in order to bring a crisis or problem to resolution, but he prefers to focus on the larger goal of "operational excellence" through goal setting and achieving big goals. The views of participants DataDriven04, BigScience05, and Seasoned06 all spoke of focusing on spending their efforts on developing tools to support data-driven decision-making.

"Know Thy Self"

Transformation leadership is clearly evident in the way the veterans viewed themselves as the leader of the leader-follower exchange. One of the more striking findings about this group is their belief in the value of practicing self-reflection, situational awareness and mindfulness, therapy, coaching, and having a work-life balance. Being honest and having a strong sense of commitment to one's core values was commonly stated in the interviews with Jackie10, Inspirational10, Sage04, and OprahWinfrey09. Participant Jackie10 emphasized the need for confidence in leading her organization.

"We're in this Together"

The veteran group of senior executives espoused a more transformational approach to leadership than the others. Not only did they speak of transcending the self-interest of themselves and their employees, they expressed an emotional commitment to their people and a shared purpose. Participant Sage08 proclaimed, "I care for the people that work for me." "I always look at the interest of the organization rather than my own agenda, he continued." On multiple occasions, OprahWinfrey09 retold the story of how perceptions of her leadership styles changed after being on the job for 1 year. She stated, "my team was shocked that I would not act as the "police" but more of a navigator, problem-solver, and partner with my staff in supporting the science." Because of her social work background, OprahWinfrey09 placed emphasis on establishing a good hierarchy of relations. While they recognized the need to have good transactional leadership in the day-to-day management of their agencies, they identified more with using their charismatic ability to build support among their followers, creating an appealing vision using organizational culture, and engaging and focusing their agency's effort on confronting challenges.

Views and Attitudes of Innovation

"There is a Need to Do More with Less"

The participants overwhelming shared the view that administrative innovation is important to them as their agency's top administrators. The need for innovation is especially important given the challenges they have had to face in the past year, including a Government Shutdown, sequestration, budget reductions, low employee morale, a reduction in performance awards, and pay freezes. Participants Faith01, Lindblom02, and Inspirational03 agreed that innovation allows for better decision-making, accountability, creative business solutions, and collaborative/joint efforts across NIH. It was noted by participant Faith01 that innovation should be used as a tool to improve the business of government and should not be compared with the private sector which seeks to use it to earn more profits. Participant Sage08's view was shared universally among the senior executives that "to innovate is to make things more efficient and effective by doing more with less." Participant Lindblom02 believed innovation was the management tool to improving overall services and processes but also noted that innovation has to be aligned with the agency's overall mission and must make mission accomplishment easier and less costly.

What does it mean to Innovate?

It is worth noting the senior executives shared their meanings of administrative innovation. Participant Lindblom02 stated that innovation was about "developing new ideas, applications, and to try to improve performance and effectiveness of services, and processes." "Innovation encourages discussion for doing things different, says General07." Participant Seasoned06 proclaims that innovation means "things have to be different and better." Overall, there was a collective sense that administrative innovation would bring better services and lower costs, collaboration, and a community of sharing among the Institutes and Centers which could help to reduce duplicative efforts and save money across a range of cross functional areas such as IT, budget, human resources, and acquisitions. It is important to note that Inspirational03's views on innovation uniquely qualify her to serve as the first permanent Executive Officer of NCATS. The NCATS mission is unique among the NIH scientific community in that it was created to "catalyze the generation of innovative methods and technologies" in order to carry out the scientific agenda of the NCATS Director. Participant Inspirational03 commented that the NCATS Director was looking for a senior level administrator with the right mix of energy, passion, experience, and people skills to build an innovative administrative structure to support the NCATS scientific enterprise.

The Role of the Senior Executive

Although the senior executives collectively agree that innovation can be both top-down and bottom-up, the narratives reveal a disagreement on the role of executive leadership in fostering an environment for either approach to flourish. Most participants believe that, in the words of participant Seasoned06, "a good idea can come from anywhere." Participant Sage08 agreed with this sentiment and took it a step further by proclaiming that, "the idea of the lone innovator is gone." Many believe innovation requires the support and motivation of the senior executive while an influential minority counter that support for innovation is usually promoted by frontline employees. The minority argue that "it is beyond the control of the leader to innovate and it must be done individually." However, participant Inspirational03, a member of the majority opinion, believes, innovation can only be successful based on the credibility of the leader and should be supported by authentic leadership that is "in tune" and "involved" in the inner workings of the agency." Participants Inspirational03 and Jackie10 are of the view that the senior executive is the important role for keeping the workforce engaged, especially during the current political climate. Common agreement seemed to be found in the comments by the participants that the role of the executive officer should be to encourage people to think strategically because they have access to the resources needed to support innovation. Participant OprahWinfrey09 stated that she "encourages people to think of good ideas" while participant Seasoned06 says he encourages people to "think of good ideas locally within their units and to implement globally across their department and even to consider implementing across the Institute."

"Comply and Create"

The narratives revealed a mix of views on whether innovation was mandated, self-initiated or even regulated. All participants stated there were constraints to innovation within the bureaucratic confines of the government. Participant Jackie10 states that innovation is "complying with creativity." She also stated, "it takes extra energy to overcome the compliance matters and get to the issues that really foster a genuine commitment to do organizational improvement." A key point raised by participant Inspirational03 that was not mentioned by the others is the importance of timing. Inspirational03 believed timing was essential of when a senior executive should encourage an innovative response to a problem. The value of the innovation depended on the timing of its occurrence.

Bureaucratic Innovation

The participants recognized the limits placed on their bureaucracies due to outside forces including the President and Congress. Participant Lindblom02 noted that NIH corporately is facing a "squelching of innovation" due to budget cuts. Participant Lindblom02 also added that the squelching is also due to the NIH committee structure process of decision-making which can inadvertently be a "bureaucratic overlay" and impede innovative efforts. While most participants agreed that the President and Congress mandate innovative practices through the issuance of directives, resolutions, and other requirements, a sizeable number also believed it was ultimately up to senior executives to foster the environment for innovation. Participants DataDriven04 and Jackie10 stated that they often used presidential and congressional mandates as opportunities to shape their agency's response to innovation.

Character of Administrative Innovation

A majority of the participants believed innovation was easy to achieve within their individual Institute or Center as opposed to agency wide. However, a stream of views from those leaders who have successfully adopted and implemented administrative innovation suggests that innovation can be achieved using 5 strategies:

1.) Employ a *results-oriented* strategy with metrics

2.) Cultivate a culture of *risk-taking* and experimentation

3.) Devote *resources* with money and staff to innovation efforts

4.) Recognize and *reward* innovators with non-monetary and monetary means

5.) Sustain innovative gains with replication

"Innovation should be Results Oriented"

Participant Inspirational03's view that innovation should be documented in a results-oriented strategy that is open to change and grounded in realism was shared by Participants Sage08 and Jackie10. This view comes from previous work experience and deep familiarity within the NIH organizational structure. They also commented on the need for innovative practices to be doable in order to add value to the organization. Lindblom02 noted that innovations can often be costly and stressed the need to avoid additional costs if possible for best value to the government. It was clear to the researcher that the best way to conceptualize and vet (clearance of) innovative ideas is through the submission of annual goals. Participants Sage08, DataDriven04, OprahWinfrey09, Faith01, and General07 all produced documents showing annual operational strategies to achieve innovations in managing IT systems, hiring, and financial management.

Innovation should be a Strategy

Over half the participants shared the common theme that they have some of kind of innovation strategy. The strategies consist of an administrative agenda that includes core values and/or operating principles that espouse support for innovation. Participant Datadriven04, for example, fosters an appreciation for innovation within his agency by infusing the following statement of core ideology into the organizational culture:

> "The core purpose of the Office of Administrative Management is:
>
>> Support the uncovering of medical knowledge that protects and improves the visual health of the Nation. We do this by providing exceptional administrative management to NEI including administrative services, financial management, information technology services, procurement, management analysis, and preparation of reports and statistics related to NEI activities. We will provide organized, timely advice and guidance that exceeds our customer's expectations. We endeavor to improve and seek-out innovative and more efficient ways to meet our goals. We aspire to fulfilling our result-oriented objectives with integrity while maintaining an outstanding reputation (NEI OAM Core Values, n.d.)."

Additionally, the narratives indicate participants Faith01 and General07 implemented formalized administrative strategic planning processes to formulate innovative goals. The planning sessions allow their respective administrative teams to identify major themes and priorities. According to participant Faith01, "the sessions allow my team to tie the innovative themes back to the Office of Management vision, mission, and values." The consequence of these planning processes has led to the adoption and implementation of innovative practices, namely new and improved information technology and financial management systems.

"Risk Taking is Critical to Innovation"

The most striking characteristic of the sample of senior executives who have supported successful innovation was the view that risk taking was essential. As veteran executive officers, participants Sage08, Jackie10, and Inspirational03 all supported the notion of creating space for their employees to experiment new ideas, tools, systems, and approaches to doing work with the possibility for failure. Such an approach is very provocative given the constraints on public administrators given their limited resources and accountability requirements to Congress. Although the veterans shared this view, the narratives reveal that Participant Sage08 is the leader of the senior executives in adopting and implementing the following innovative web-based solutions for grants management:

1. the electronic records administration (ERA), was developed in 1994, improved the receipt, review, and referral of NIH grant applications. eRA was adopted on a government-wide level and is now the federal government's system for R&D contracts.
2. the query, view, and report (QVR), a tool that allows you to search, view, and retrieved detailed information about grant applications. QVR integrates grant applications and awards, relevant financial information pertaining to grants, and a database of indexed journals citations and abstracts.

The members of the new breed leader grouping also supported the failure in risk-taking. For example, DataDriven04's Institute recently rolled out a successful change management effort to make data-driven decision through its Executive Dashboard, QlikView. Led by DataDriven04, NIH established a goal to develop an IT methodology to identify and track cost-savings. Unlike previous attempts to structure IT organizational changes from the top-down by individual agencies, NIH procured new business intelligence software at the request of front-line employees to analyze resource utilization to inform executive-level decision-making. The tool complimented the agency's efforts to achieve greater cost efficiencies out of its people and systems. This resulted in a new approach by way of QlikView, a commercial, off-the-shelf product that allows for faster, data-driven decisions by assessing agency performance indicators in the areas of human resources, IT, procurement and budget. The plan included the participation over 60% of the NIH Institutes and Centers in sharing the cost-savings to purchase the new management tool.

Innovation Needs Resources

A common theme shared by all the participants pointed to the need for resources to support innovation. One stream of thinking put forward by a few participants leading smaller agencies was the notion that larger Institutes and Centers have more money and this increases their ability to support innovation practices. However, other leaders of smaller agencies viewed this limitation as an opportunity to collaborate with larger Institutes to share costs, as was the case with the QlikView product. All participants agreed that resources are critical to implementing ideas and that a dedicated funding source with staff are essential to the success of any innovation.

One solution offered by a few of the senior executives including participants General07 and OprahWinfrey09 is the formal institution of program management offices (PMOs). The PMOs were created to support administrative strategic planning and to provide the funding and expertise necessary to support innovative practices. According to these senior executives, their PMOs identify methods for assessing and managing organizational performance including business process, reengineering, and results-based accountability. The PMO staff provides hands-on support for adoption of any tool or practice that will be helpful across the Institute including a web or IT tool, new and social media, and customer software development. It is understood the customers for the PMO will be the senior executives and their staff. The PMO idea has become increasingly popular across the NIH and more Institutes are expected to follow suit in developing their own.

Reward Innovation

Many of the senior executives supported the use of monetary and non-monetary incentives in order to reward employees for innovative ideas. In the current climate that many senior executives find themselves operating all incentives must be considered in garnering the buy-in of their staff. With federal pay frozen and performance awards suspended by Congress, senior executives often turned to time-off awards and other forms of non-monetary awards systems, including praise in the Institutes' newsletter, awards programs and other methods to recognize the efforts of individuals who made a difference in stimulating innovation.

Sustain Innovation

The senior executives all agreed on the importance of sustaining innovative gains with replication. Participant Sage08 stated that is was vital for senior executives to insist on the need for a strategy to provide consistent improvement within agencies. He continued, "no one on my senior staff can tell me there isn't anything that can be improved." This sentiment was also shared by participants Inspirational03 and Jackie10 in that they constantly encouraged their direct reports to look at how their organizations could do things better, cheaper, and faster. There was agreement among all the senior executives that an annual planning and reporting process would facilitate an ongoing discussion loop of learning and facilitation of innovation practices. Some senior executives commented that work needed to be done to judge whether an innovation is still in operation after a certain amount of years or it is folded in the standard operating procedures. The innovation life cycle requires senior executives to constantly assess the internal and external challenges to an innovation. Participant Sage08 stated that leaders should not be deterred any failures, either. He continued, "innovation is a skill set that agency leaders must nurture believing that over time, the agency and its people will reap the benefits."

Document Review

This study utilized document review to support the findings from the interview data. The document review helped to strengthen validity of the interviews. The document review was conducted on publicly available documents and reports from the 10 Institutes and Centers. Similar to the semi-structured interview process, the document review involved examining, coding, and identifying the study's emerging themes and descriptive analysis. The findings and results from the document review and analysis was used to corroborate the evidence gathered through the semi-structured interview process for interpretation of the senior executives' attitudes and use of administrative innovation within their various agencies.

There were nine NIH documents reviewed for this study. See table 8. These documents included the following: 1.) 2013 Congressional Budget Justification; 2.) 2011-

2013 NIH Administrative Strategic Plan; 3.) 2012 Implementation Plan; 4.) 2013 Clinical Center Strategic and Annual Operating Plan; 5.) 2010-2012 NIH Office of Management Accomplishments Report; and 6.) 2010 Report on Bridging NIH Organizational Boundaries; 7.) 2012-2013 Institute and Center presentations on innovation; 8.) 2014 All Hands Meeting presentation; and 9.) 2012 Office of Management All Hands Meeting presentation on Operating Principles. These documents and reports discussed each Institute's or Center's use or intended use of administrative innovation. The key themes that emerged from these documents included the use of innovation to identify useful tools and practices to enhance operations, to maximize efficiency and accountability for customer service, to provide agency leadership and staff the support necessary to adopt those tools and practices, and a mechanism for agency to self-examine, implement change, and bring forward-looking techniques and processes.

Table 8: Synopsis of Document Review, Use, and Themes

Documents	Use	Themes
2013 Congressional Budget Justification	Legislative Compliance	Accountability
2011-2013 NIH Administrative Strategic Plan	Inform NIH Senior Executives	Accountability
2012 Implementation Plan	Inform NIH Senior Executives	Accountability, Process improvement
2013 Clinical Center Strategic and Annual Operating Plan	Inform Clinical Center Stakeholders	Accountability, Efficiency and Effectiveness
2010-2012 NIH Office of Management Accomplishment Report	Report overall management Accomplishments	Accountability
2010 Report on Bridging NIH Organizational Boundaries	Identify and assess internal decision-making structures	Transparency/Process improvement
2012-2013 Presentations on Innovation	Inform staff on the value of administrative innovation	Efficiency and Effectiveness
2014 All Hands Meeting Presentations	Inform staff on the value of administrative innovation and report accomplishments	Accountability

Summary

This chapter presented the findings from semi-structured interviews on administrative innovation with 10 senior executives in the federal government. The chapter included an overview of the methodological approach and a discussion of themes related to the leadership approach of senior executives and their experience with administrative innovation in their agencies. In this chapter, descriptive analysis was used to analyze the data.

The narratives revealed that most of the senior executives did not choose to enter the SES but did so at the behest of supervisors as the next step in their career progression. Only a few joined the SES for reasons of wanting to work in the top career ladder of public service. The group is highly educated with advanced degrees in business administration, political science, social work, and public health. Only a few of the executives have moved across the government and prefer to stay within a single agency because of familiarity with the agency's inner workings.

Although the senior executives perceived themselves as transformational, the data suggests most are transactional in nature. Because of the internal resistance to enact big, sweeping administrative changes, the outsider and new breed leaders adopted a more incremental approach to organizational changes. However, the veteran group of leaders adopted a more transformational approach to problem solving using coaching, mentorship, a focus on human relations, creating a vision, and building relationships based on trust to encourage the use of creative solutions to save their agency's money, time, and effort.

There is widespread agreement that innovation is a useful tool to the leaders in managing their organizations. Innovations are used to save money and/or fill a performance gap. The senior executives most likely to support innovation use results-oriented strategies. One of the commonly cited strategies was the demand for three or four annual innovation goals from each direct report. The goals were tracked on a quarterly basis for progress and were also tied to each employee's performance plan.

CHAPTER 5: DISCUSSION

The overall goal for this study was to explore, identify, and understand the leadership styles of a group of senior executives in supporting administrative innovation in a federal agency. The literature on innovation, leadership, and bureaucracy clearly showed a need for advanced understanding about the conditions under which administrative innovations can be made to work in federal bureaucratic settings and how leadership practices are associated with such innovations. In particular, the guiding research questions for the study were:

1) Some agencies have been successful with implementing innovation while others have not. Why? Why do some agencies seem to be bucking the trend?
2) Under what circumstances is it being used?
3) Does leadership style affect the support of innovation? If so, which styles are more likely to support innovation?

To answer these research questions, the researcher utilized a qualitative narrative strategy of inquiry based on interviews to assess the leadership styles of ten federal senior executives. This chapter in the study will provide a discussion of key results and findings, the study's limitations, and the study's implications and future research for public administration.

Review of the Results and Findings

Given the exploratory nature of the research and manageable sample size of the population under study, the results suggests four factors that are believed to allow a key group of the leaders to be favorable to administrative innovations in federal agencies: administrative discretion, length of service in the SES, transformational leadership and organizational culture. The purpose of the study was not to differentiate between the determinants of successful and unsuccessful innovations but rather to explore the role of leadership in federal organizational structures and decision-making process that generate innovative practices. The scope of the former is beyond the scope of this study. These four factors were critical to helping the researcher explain why some leaders had experienced greater success within innovation than their counterparts.

The interviews covered a wide array of issues, including professional background, perception of leadership style according to the Bass and Avolio (1990) leadership model, and views and experiences with innovation. Descriptive data was recorded for the ten agencies represented. Organizational age ranged from 2 to 77 years with a mean age of 52 years. The number of full-time equivalent employees ranged from 404 to 3,000. Total agency budgets ranged from $500 million to $5 billon.

The interviews began with questions surrounding the ten participant's professional backgrounds. Demographic questions asked of the participants revealed they were a small but a diverse group of individuals. All ten participants were highly educated with advanced degrees in the areas of business administration, general administration and policy, social work, and public health. Women represented 60% of the participants while men represented the remaining 40%. Most of the male participants are under 50 years of age while a majority of the female participants were over 50 years of age, presenting an interesting generational gap of senior executives. Very few participants (only 30%) were motivated to enter the SES for reasons of wanting to work in public service or are willing to take assignments across the government. The remaining 70% of participants entered the program as the next step in career progression and remained at NIH because of their respect for the NIH mission and comfort level with NIH systems, processes, and organizational culture.

Innovation is Important to All Senior Executives

An important initial observation from the narratives is that there was unanimous agreement among the ten participants that innovation was important to running their agencies. First, as mentioned before, innovation is a change management process that occurs over time and cannot be captured in one snapshot. In explaining their efforts to reduce costs and improve administration, the leaders shared a common view that change was necessary for the growth and survival of their agencies. Innovation was perceived as a useful management tool to stay ahead of the environmental constraints placed on the federal bureaucracy by Congress.

Innovation was described and defined by the ten participants as consisting of applying a new idea implemented elsewhere to a new context within their agencies, scaling up a process improvement or system to a new and larger population within their agencies and/or across the NIH, and a solution to a problem where previous attempts failed. Most, if not all, participants recounted stories that innovation allowed them to improve performance within their agencies by operating cheaper and faster. There was agreement among the participants that innovations should introduce a new practice, program, or process to respond to a challenge facing the organization. Most participants believe federal budgets and numbers of staff are critical factors in supporting innovation. There was common agreement shared among the participants that support the ideals of innovation in achieving the values of accountability, transparency, efficiency, and effectiveness.

Identifying a Surprising Face of Innovation

The most striking characteristic of the sample of leaders is the commonness of innovation among the four veteran participants. The narratives described different stories of innovation success told by three distinct groups of leaders: the outsider, new and veteran senior executives. The study revealed more innovation successes happened among three veteran female leaders and one male leader due to a mix of their extensive service in the SES and the use of many of the variables used to describe aspects of transformational leadership. The veteran leaders spoke more of the need to collaborate within their organization through a team-based, open-systems model to organizational change.

To understand the relationship between leadership and innovation, it is necessary to look more closely at the number of years the leaders served in the government and the SES. Of the ten participants, the group of four veterans had worked at least twenty years in the government and averaged approximately ten years within the SES. Given an average of ten years as senior executives, the stories of innovation by the veteran leaders included more dialogue on the innovation process they learned by participating with change management processes over the length of their careers. Although the new and younger leaders had considered themselves to be transformative, the veterans shared more insight and talked about the importance their longevity had played in exposing them to unique experiences of working in small, medium, and large agencies with complicated budgets, and low to severe human capital needs.

The narratives around length of service in the SES are significant because they highlight the importance of the leader's reputation and credibility of being considered an innovator. The researcher observed how veteran leaders credited their length of service with allowing them to develop reputations consisting of integrity, trust, care, and efficiency and how these values boosted their credibility within their agencies and across NIH as innovators. Because of their established careers, the veteran leaders had the unique ability to introduce innovations because they functioned effectively in managing their agencies. As a result, they were likely to attract the resources needed to support innovation within their agencies and in collaboration with other Institutes and Centers. These experiences were not discussed in the narratives told by the outside and new leaders. The researcher noticed a clear advantage of being recognized as an experienced senior executive in the NIH community of executives.

Some interview answers that emerged from the group of four veterans provided a clearer explanation of their innovation experiences vis-à-vis the New Public Management movement and reinventing government efforts of the early 1990s. The four veterans were able to speak to the impact of leading such government-wide efforts within their agencies. These experiences had a profound effect on develop their knowledge, skills and abilities to develop a process to initiate innovation. This group of participants produced a better understanding of the role of the leader in initiating innovation in response to turning around organizational problems in the areas of grants management, information technology, and performance measurement of employees. The opportunities these leaders had over the years with innovation depended on the availability of funds to support such initiatives.

Under What Circumstances is Innovation Used?

The narratives described the innovations as being opportunistic based on timing, dedicated staff and available funding. The narratives revealed innovation is most adopted and implemented during times of budget cutbacks. Senior executives across leader groups spoke of the need to comply with congressional requirements and presidential directives and turned to innovative practices to find efficiencies in services and systems.

In addition to the usual periods of budget cutbacks, the four veteran leaders shared a view that compliance periods also represented times to comply with creativity. The narrative revealed that innovations are also supported when there is a perceived performance gap or failure with existing administrative processes or systems. Within the bureaucratic confines of their agencies, leaders to tailor innovations in a way to meet specific program administration needs. In times of budget cutbacks, innovations are ripe for support and buy-in among federal employees who look to creative ideas to save the government money and improve upon existing processes, systems, and procedures.

Why Are Some Agencies Successful with Innovation?

Innovation is Likely for Leaders with High Levels of Administrative Discretion

An important theme that emerged from the study was the degree to which leaders were more likely to support innovation depending on their level of administrative discretion. As stated in chapter two, having a proper role of authority in government is critical for an administrator to achieve administrative efficiency. Rosenbloom (2003) argues that administrative discretion allows agencies to exercise a great deal of flexibility in implementing or enforcing laws, rules, and other regulations. The narratives revealed the veteran leaders experienced greater success in adopting and implementing innovation because of the flexibility given to them in managing their funds and activities afforded by Congress through federal appropriations and public mandates to carry out their functions.

An additional theme emerged during the stories of innovation that as more power and authority remained at the top of federal agencies, the more conducive the agency became to administrative innovation because these types of innovation are more top-down in their orientation as opposed to bottom-up creativity as is seen with technological innovation. The researcher observed in the narratives of the veteran leaders the frequent references to having agile organizational structures and flexible decision-making processes. This was not the case for the new and young leaders who described having to be more transactional within their agencies due to the barriers of less flexibility including rigid structures and processes. These barriers stifled innovation due to tight compliance controls required by Congress and the internal controls with these agencies.

Innovation Relies on a Strategy

Another striking characteristic captured in the narratives of the four veteran leaders was their intentional efforts to support innovation through strategy. This phenomenon was less evident among their new and younger counterparts. While most of the leaders supported the notion of strategic planning, it was more evident in the innovation stories of the veteran leaders that new administrative procedures, processes, and systems came as the result of annual innovation cycles of review. The narratives revealed that veteran leaders used environmental scanning to inform the innovation strategies of their agencies. Bryson (2004) notes the importance of the strategic planning process and how it a significant role in public organizations given the complex political, legal, and economic structures and relationships. The four agencies managed by the veteran leaders modeled open-systems structures that made them more conducive for diagnosing the state of their organizations. The more closed-system agencies under the new and young leaders did not facilitate the openness needed to understand the gaps, challenges, and opportunities facing their organizations.

All four veteran leaders employed a results-based strategy with clear metrics. Unlike their other six counterparts, the veterans required all their direct reports to clearly define three-four innovation goals each calendar year. Each calendar year represented a cycle of innovation. The cycles included planning meetings led by each participant and were attended by their direct reports and office heads who were tasked with identifying innovation goals that could be accomplished in one year. The goals were then documented in an administrative action plan and tracked on a quarterly basis by the leader. The leader also included an element of innovation in the performance plans of these employees for accountability purposes.

A theme of risk-taking was cited as a necessity to innovation among all the participants; however, the stories of fostering organizational environments of experimentation was more storied and pronounced among the four veteran leaders. Using the higher levels of discretion, the veteran participants created environments of experimentation through prize competitions to spur innovative ideas. Additionally, the veteran participants told stories of creating strategy teams or other workgroups that were responsible for addressing a variety of issues during strategic planning meetings.

Another striking characteristic of the sample of participants was the recurring theme of the need for resources in the forms of funds and people in order to innovate. The veteran senior executives spoke in long detail about their concerted efforts to dedicate a small percentage of their budgets (usually 5%) to support financial investments or seed money into promising tools and systems for greater workforce productivity. Also, the facilitation of the collection, vetting, and implementation of innovative ideas from frontline employees through project management offices was common within the successful agencies. As the organizational change process is described by Cummings and Worley (2009), organizational diagnosis, collecting and analyzing innovation ideas, and designing an intervention was performed by the project management offices to assist the veteran leaders in leading and managing various cases of organizational change across key functional areas including procurement, human resources, financial management and information technology.

In addition to using a strategy, creating opportunities for risk and providing resources, the narratives among the veteran leaders pointed to the use of rewards for frontline employees recognized as innovators. The researcher noted the myriad creative approaches to reward employees. The veterans retold stories of having the ability to reward employees through monetary cash awards for short, on-the-spot process improvements or for special acts of innovation that took place over time and involved groups of individuals. Additionally, the researcher found a common theme across the narratives of the veteran leaders of using creative non-monetary awards during tight budget periods when monetary awards were suspended by Congress. The awards included time-off awards, certificates, and plaques awarded at formal recognition programs. All of these types of rewards provided useful incentives to the employees to continue innovation within these agencies.

Perhaps another critical theme that emerged from the narratives, particularly among the four veterans, was the notion the innovation process was to be replicated. The stories told by the veterans revealed the importance of sustaining innovation by duplicating the process on a recurring and consistent basis as innovations were folded into the standard operating procedures of their agencies. From the viewpoint of these leaders, innovation is ongoing process that needed constant tending and did not end at the adoption and implementation stages. It is this process that set these leaders a part from their new and younger counterparts. Essentially, continuous learning and discussion of innovation was taking place during the innovation process. It is these strategies that have afforded the agencies managed by the veteran leaders even greater success over others in implementing administrative innovation.

Leading Innovation through Organizational Culture

The narratives overwhelmingly show a common thread or positive relationship between the veteran leaders and transformational leadership. The narrative analysis of the leadership behaviors of the new and younger participants revealed a mixture of transactional and transformational styles or a slight lean towards the transactional style. However, the veteran group of leaders described many of the variables that comprise the transformational leadership model. The four veteran leaders told stories of how they treated their employees like family, and, as a result, sought a higher degree in seeking creative ideas from frontline employees through strategic planning for the greater good of the organization. By providing the room necessary for experimentation with resources of money and staff and rewards as incentives, the veteran leaders were able to use their charisma to motivate their employees to answer the call for operational improvement.

One could argue this sentiment is closely aligned to transformational leadership variables of the Bass and Avolio (1990) model and validates previous studies findings that it is the model to explore leadership in the federal government.

Innovation Relies on a Collaborative Culture

The narratives produced an innovation theme of relying on a culture of collaboration and acceptance. Among the discussion among all the participants was a more implicit finding: the story of creating an environment for innovation through collaboration between the leader and their followers to support. Schein (1985) defines organization culture as the shared values and beliefs within an organization – symbols, stories, myths, rituals, ceremonies, and share experiences. In addition, Khademian (2002) notes that working within culture is essential for leaders in describing how specific activities will be carried out. More importantly, Khademian (2002) warns that an organization's culture is not amenable to unilateral control or reengineering by managers. This clearly describes the resistance new participants faced in their innovation efforts. The outside and new groups of leaders found themselves working in organizational cultures that were problematic for innovation. They faced internal resistance among followers who did not buy in into the leaders' vision for innovation.

The four veteran leaders spoke at length about the importance of using their charisma to work within their collaborative organizational cultures to communicate a vision of change to their followers. From their viewpoint, this was critical to their success because change was often met with resistance. The veteran leaders' awareness and willingness to use their influence to provide calm during times of change demonstrated the importance of using charisma to induce stress and exert authority during the innovation process. Through newsletters, annual reports, all hands meetings and presentations, veteran leaders reinforced a shared purpose for the reasons of needing to innovate. This transcended the work of the individual organizational units to a more collective action agenda for the entire agency.

The stories told by the four veteran leaders were more detailed with compelling stories of generating more inspirational motivation to bring about innovative practices. The researcher noted how optimistic and comfortable the veteran leaders appeared with experimenting with new ideas, systems, and processes than their new and younger counterparts. In contrast, the new and younger leaders spoke of being less inclined to experiment within their agencies because of NIH's high degree of publicness and compliance with congressional rules and regulations. Using organizational culture required the leader to champion innovation in administrative areas where a performance gap existed and then empowering their employees to develop a creative solution. Collaboration occurred through intra-organizational relationships between the leader and their followers. From the prospective of the participants in the veteran group, the leader was responsible for stimulating a vision and facilitating the organizational environment for frontline employees to develop innovative tools.

The results and findings suggest that federal agencies that have senior executives who employ transformational leadership practices also to tend to introduce more administrative innovation. The study reveals that most federal agencies work according to a transactional model for day-to-day routine matters but require a transformational leader in order to support innovative practices. The outside leaders were classified as having a mixed leadership of transactional and transformational styles. The new breed leaders were classified as transactional based on their narratives which identified employing active and passive management strategies in order to maintain acceptable standards and routines. However, the views and experiences of veteran leaders clearly demonstrated a commitment of the ideals within transformational leadership. In contracts to the style used by the outsider and new breed leaders, the veteran narratives revealed a deeper sense to the collective wisdom and good of the organization through coaching, mentoring, and intellectual stimulation through compelling visions. Transformational leadership styles offered the better approach to achieving administrative innovation.

The role of the senior executive is very important to spurring innovative practices because of the access to resources such as money, people, energy, and vision. However, there is a disagreement on the leadership approach. The group of outside senior executives believe in a more incremental approach to innovation, the newer breed of senior executives believe in doing big things but enforcing discipline of agency rules simultaneously, and veteran leaders are open-minded, charismatic, and adaptable in problem solving.

Limitations of the Study

The research study helped to increase knowledge and understanding regarding the interplay between leadership styles and innovation use in a federal agency. Interviews provide a depth of knowledge not found in survey instruments. However, it is important to share the study's limitations. It should be noted that due to the exploratory nature of the study, no causal inferences can be drawn from the findings (Borins 2012). Future research studies are needed to test theoretical propositions about the direct correlation between senior executives and leadership styles. One limitation of the study was the indirect information obtained and filtered through a single researcher and interviews of a small number of participants. The information was provided in a designated place rather than the field's natural setting. The researcher's presence as an NIH employee could have biased the selection and interview responses of the participants.

Additionally, not all the participants were equally perceptive and articulate in describing their views on innovation which created an imbalance in accurately portraying their views according to the leadership model. Because of the particularity of the study in assessing NIH senior executives, the study offers no generalizability to the senior executive population across the government and will not be reliable for producing precise measurements of variables, estimating characteristics of the larger SES population or calculating the magnitude of relationships between the variables.

Also, the document review contained limitations in the study. The presence of a tape audio recorder could have affected the responses of the participants and their ability to be honest and open in their responses. The search for public and non-public documents in hard-to-find places was a challenge for the researcher. The transcribing, coding, and content analysis presented the research with a tedious responsibility to capture the responses of the participants.

Implications of the Study

The use of innovative practices within federal agencies has increased significantly over the years due to budgetary pressures on public leaders to do more with less. The interplay between leadership and innovation has garnered increasing discussion in public administration literature; however, the research does not go far enough in documenting the attitudes and behaviors of senior public sector executives in supporting innovation.

Furthermore, the challenge remains for senior executives in the public sector, particularly those managing organizations within the federal bureaucracy, to support and sustain innovative administrative practices. As a result, this research study examined why some agencies are more successful in supporting innovative practices, the circumstances in which innovation is used, and the leadership styles of senior executives with particular attention on the styles that are likely to support in innovative in a bureaucratic setting.

Future Research

This study provided valuable insight into the interplay between leadership and innovation at the federal level. However, the narrative inquiry assessed ten agencies within the NIH context. The research cautions that the following recommendations be considered within the framework of the study only; the study did not include any effectiveness measures, and therefore it is not known how levels of administrative innovation contributed to the overall performance of federal agencies.

Future research should expand upon this study to examine leadership and innovation across multiple federal agencies to use larger organizational samples to identify the leadership styles that support innovative practices, their use, and how they have enhanced the management and decision-making processes within those organizations. Perhaps a quantitative study can best facilitate the testing of theoretical propositions and hypotheses in this type of study. Instead of involving participants based on purposeful and convenience sampling strategies as was done in this study, additional research could assess the relationship quantitatively targeted towards senior executives who were awarded Presidential Rank Awards for generalizability.

Additionally, future researchers should use the study to further explore additional senior executives' attitudes and behaviors towards innovation using other leadership models and include executives at the state and local levels of government. The research questions could certainly be reframed and addressed in other in these types of government settings for further study and discussion.

Conclusion

This chapter sought to present the findings in exploring the role leadership plays in supporting innovation. The exchange between leadership and innovation has been examined in public administration literature for decades; however, how senior executive leadership supports innovation in agencies at the federal level is not well documented. Applying the concepts of transactional and transformational leadership in a government setting at the federal level sought to demonstrate the value of this approach to the study of public management innovation and by doing so suggest potential possibilities and implications for future public administration studies.

With few studies qualitative exploring and analyzing the role of executive leadership within federal agencies, this study seizes an important opportunity to assess this in the context of understanding senior executive support of innovation. The productivity of U.S. federal agencies is perhaps one of the most hotly debated issues in Congress and the media. Senior executives find themselves in a unique position to respond to the cynicism by implementing efficient and effective strategies to find creative and smarter ways to manage the business functions of government.

The lack of research examining executive leadership style and support for innovation poses a major knowledge gap for federal agencies that are trying to find ways to live up to the Civil Service Reform Act mandate to make government efficient and effective. Based on this information, the purpose of the study was to explore, identify, and understand the leadership styles of a few members of an important group of public managers to understand their role in supporting innovation. Additionally, the study looked at the success of agencies compared to those that were not successful, the circumstances in which innovation was used, and how leadership style played a role.

By using a qualitative narrative approach, an in-depth assessment regarding senior executive leadership styles and views of innovation occurred in ten federal agencies. The study contributed to a limited body of knowledge on the views and attitudes of SES members towards administrative innovation. The study added a unique perspective for assessing leadership styles of senior executives at the federal level. The study provided a greater understanding that may help determine ways to enhance the linkage between leadership and innovative practices in management and decision-making processes in federal agencies.

The study results found that transactional leadership was used by most senior executives to enforce rules and maintain routine in operations while a few senior executives used transformational leadership to create the environment in which innovation could occur and be sustained. Overall, the study showed that innovation is present at the federal level; however, it is used differently by leaders. Communicating the value of public management innovation and its use as a management tool, fostering and rewarding leadership practices through proven strategies to support innovation in program administration, cultivating a greater awareness and incorporating more innovation principles and practices in the leadership training curricula of senior executives' plans are all vital aspects to expanding innovation as a tool to senior executives across government.

Summary

The goal of this study was to explore, identify, and understand how the leadership styles of ten senior executives supported innovation in federal agencies. It is worth noting the narratives elicits are by no means the only story to be told involving senior executives. The researcher considers the stories to be more analytical in nature in describing the population under study. The results showed four factors that are favorable to administrative innovations in federal agencies: high level of administrative discretion, longer lengths of service in the SES, transformational leadership style, and collaborative organizational culture.

The collections of narratives showed those leaders with higher levels of administrative discretion are likely to be more successful with innovation. Administrative discretion allowed for a more top-down approach and higher levels of control over employees. Longer lengths of service in the SES tended to produce innovation among these leaders. Additionally, to innovate in the federal bureaucracy requires leaders to have developed a reputation and credibility as an innovator to support the success of future innovation. This was not the case with the outside and younger leaders.

Also, the narratives revealed a positive relationship between transformational leadership and administrative innovation among the veteran participants. This suggests that federal agencies that have senior executives who employ transformational leadership practices also tend to introduce more administrative innovations. The results and findings indicated that while most participants adhered to a transactional leadership style, the transformational leadership style found among the veteran senior executives allowed them to foster environments conducive to supporting administrative innovation as found in the Bass and Avolio (1990) leadership model. Additionally, leaders used times of budget cutbacks to explore innovation in order to make agency operations more efficient and effective using results-oriented strategies, risk-taking, resources, rewards, and replication. Having a collaborative organizational culture helped the veteran leaders support innovation without creating barriers to the adoption and implementation and diffusion of creative practices.

This study has the potential to influence decision-making within federal agencies, inform training and develop programs for senior executives, and better equip current senior executives in learning and understanding effective ways to support innovation in ways tailored to program needs.

REFERENCES

Abramson, M. A., & Littman, I. D. 2002. What do we know about innovation? In M. A. Abramson, & I. D. Littman (Eds.), Innovation, 1-11. Lanham, MD: Rowman & Littlefield.

Anita, V.A., & McJlvain, H.E. 1999. An armchair adventure in case study research. In B.F. Crabtree, & W.L. Miller (2nd ed.), *Doing qualitative research,* 253-268. Thousand Oaks, CA: Sage.

Altshuler, A. 1997. Bureaucratic innovation, democratic accountability, and political incentives. In A. A. Altshuler, & R.D. Behn (Eds.). *Innovation in American government*, 38-67. Washington, DC: Brookings Institution Press.

Altshuler, A. and M. Zegans. 1990. Innovation and creativity: comparisons between public management and private enterprise, Cities 7 (1), 16-24.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., and Herron M. 1996. Assessing the work environment for creativity. *Academy of Management Journal*, 39, 1154-84.

Amabile, T. M. 1998. How to kill creativity. *Harvard Business Review*, 76 (5), 77-87, September/October.

Andersen, J. A. 2010. Public versus private managers: How public and private managers differ in leadership behavior. *Public Administration Review*: 70 (1), January/February.

Bardach, E. 1998. Getting agencies to work together: The practice and theory of managerial craftsmanship. *Publius*, 32 (3): 135-138.

Barnard, C.I. 1968. The Functions of the Executive, Harvard, MA.

Bass, B. M. 1985. *Leadership and performance beyond expectations*. New York: Free Press, 1985.

Bass, B.M. 1990. From transactional to transformational leadership: Learning to share the vision. *Organizational dynamics*, 18 (3): 19-31.

Bass, B.M. & Avolio, B.J. 1990. The implications of transactional and transformational leadership for individual, team, and organizational development. In *Research in Organizational Change and Development*, W. Pasmore and R. W. Woodman (Eds.), vol. 4, 231-272, Greenwich, CT: JAI Press.

Bass, B.M. and Avolio, B.J. 1993. Transformational leadership and organizational culture, *Public Administration Quarterly*, 17 (1): 112-121.

Bass, B.M. 1997. Personal selling and transactional/transformational leadership. *Journal of Personal Selling & Sales Management*, 17 (3): 19-28.

Bass, B.M. 2000. The future of leadership in learning organizations. *The Journal of Leadership Studies*, 7 (3): 18-40.

Bass, B.M., Avolio, B.J., Jung, D. I., & Berson, Y. 2003. Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology*, 88 (2): 207-2018.

Behn, R. 1997. The Dilemmas of innovation in American government. In A. A. Altshuler & R. D. Behn (Eds.), *Innovation in Government*. Washington, DC: Brookings Institution Press.

Behn, R. 2008. The adoption of innovation: The challenge of learning to adapt to tacit knowledge in innovations in government. In *Research, recognition, and replication*, ed. Sanford Borins, Washington, D.C.: Brookings Institution Press.

Berry, F. 1994. Innovation in public management: The adoption of strategic planning. *Public Administration Review*: 54 (4).

Borins, S. 1998. *Innovating with integrity: How local heroes are transforming American government*. Washington, DC: Georgetown Univ. Press.

Borins, S. 2001. The challenge of innovating in government. Arlington, VA: The PricewaterhouseCoopers Endowment for The Business of Government.

Borins, S. 2002. Leadership and innovation in the public sector. *Leadership and Organization Development Journal*: 23 (8): 467-476.

Borins, S. 2008. *Innovations in Government: Research, Recognition, and Replication.* Brookings Institution Press.

Borins, S. 2012. Making Narrative Count: A Narratological Approach to Public Management Innovation. *Journal of Public Administration Research and Theory*, 22: (1): 165–189.

Brass, C.T. 2012. *Changes to the Government Performance and Results Act (GPRA): Overview of the New Framework of Products and Processes*. Congressional Research Service. Accessed on 10-29-2013 at: http://www.fas.org/sgp/crs/misc/R42379.pdf.

Bryson, John M. (2004). Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement. 3rd ed. Jossey-Bass Publishing.

Burns, J. M. 1978. Leadership. New York: Harper Torchbooks.

Caiden, N. 1981. Public budgeting amidst uncertainty and instability in *Classics of Public Administration*, 412-421.

Carey, M.P. 2012. *The Senior Executive Service: Background and Options for Reform.* http://www.fas.org/sgp/crs/misc/R41801.pdf.

Clandinin, D.J. & Connelly, F.M. 2000. Narrative inquiry: Experience and story in qualitative research. San Francisco: Jossey-Bass.

Creswell, J.W. 2009. *Research design; qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Crum, D. 2006. *Leadership support for innovation: A survey of U.S. Navy senior executives*. ProQuest Information and Learning Company.

Cummings, T. G. and Worley, C.G. 2009. Organization Development and Change. Mason, OH: Southwestern Cengage Learning.

Daft, R. L. 1978. *A dual-core model of organizational innovation. Academy of Management Journal*, June 21 (2): 193-210.

Daft, R. L. 2001. Organization Theory and Design. Cincinnati, OH: South-Western. 7th Ed.

Daft, R. L. 2007. Organization Theory and Design. Mason, OH: Thomson. 9th Ed.

Damanpour, F. 1987. The adoption of technological, administrative, and ancillary innovations: Impact of organizational factors. *Journal of Management*, 13 (4): 675-688.

Damanpour, F. 1996. Organizational complexity and innovation: Developing and testing multiple contingency model. *Management Science*, 42 (5): 693-716.

Damanpour, F. and J. D. Wischnevsky. 2006. Research on organizational innovation: Distinguishing innovation-generating from innovation-adopting organizations. *Journal of Engineering and Technology Management*, 23 (4): 269-291.

Damanpour, F. & Schneider, M. 2008. Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers. *Journal of Public Administration Research and Theory*, 19 (3): 495-522.

de Lance Julnes, P. 2009. *Performance-based management systems-effective implementation and maintenance*. CRC Press, Taylor and Robert Group: Boca Raton, FL.

Dodge, J., S. Ospina, and E. Foldy. 2005. Integrating rigor and relevance in public administration scholarship: The contribution of narrative inquiry. *Public Administration Review* 65 (3): 286–300.

Doig, J. W. and E. C. Hargrove. 1997. "Leadership" and political analysis. In Doig and Hargrove (Eds.), *Leadership and Innovation: Entrepreneurs in Government*, 1-22. Baltimore: The Johns Hopkins University Press.

Dullea, J. F. 1979. Developing managers for the senior executive service. *Training and Development Journal*, January.

Elenkov, D. S., W. Judge, and P. Wright. 2005. Strategic leadership and executive innovation influence: An international multi-cluster comparative study. *Strategic Management Journal*, 26 (7): 665-682.

Evan, W.H. 1966. Organizational lag. *Human Organization*, 25, 51-53.

Farris, G. F. 1982. The Technical Supervisor: Beyond the Peter Principle. In M.L. Tushman and W.L. Moore (Eds). *Readings in the Management of Innovation*, 337-348. Boston: Pittman Publishing.

Fayol, H. 1930. *Industrial and General Administration.* Trans. J.A. Coubrough. London: Sir Issac Pitman and Sons.

Fesler, J. 1987. "The Brownlow Committee Fifty Years Later." *Public Administration Review*: 47 (4): 291-296.

Fernandez, S. 2005. Developing and testing an integrative framework of public sector leadership: evidence from the public education arena. *Journal of Public Administration Research and Theory* 15 (2): 197-217.

Finnie, B. and M. Norris. 1997. Leading change: a conversation with John P. Kotter. *Strategy & Leadership*: Jan/Feb. 1997, 25 (1): 18-23.

Frederickson, H. G. 1996. Comparing the reinventing government movement with the new public administration. *Public Administration Review*, 56 (3): 263-270.

Gilchrist, V.J., & Williams, R.L. 1999. Key informant interviews. In B.F. Crabtree, & W.L. Miller (2nd ed.), *Doing qualitative research* (pp. 71-88). Thousand Oaks, CA: Sage.

Goodsell, C. 2011. Mission Mystique: Belief Systems in Public Agencies. Washington, D.C.: CQ Press.

Grady, D. O. 1992. Promoting innovations in the public sector. *Public Productivity & Management Review*, 16(2), 157-171.

Gulick, L. 1937. Notes on the theory of organization *In Classics of Public Administration.* J. M. Shafritz and A. C. Hyde. 2008. Wadsworth: Boston.

Halchin, L. E. (2003). The senior executive service: Overview and current issues. CSR Report for Congress. Retrieved October 1, 2013, from http://mspbwatch.files.wordpress.com/2013/02/the-senior-executive-service-overview-and-current-issues.pdf.

Hamilton, A. 1788. The Federalist No. 68: The Mode of Electing the President, Independent Journal. Available at: http://www.constitution.org/fed/federa68.htm.

Haraway, W. M. and D. L. Haraway. 2004. "American civil service reform: Using France as a model to develop administrative statesmen in the senior executive service." *International Social Science Review*. 79. January/February.

Harris, J., & Roberts, K. 2003. Challenging barriers to participation in qualitative research involving refugees. International Journal of Qualitative Methods, 2(2), 1-16.

Heady, F. 1949. The Reorganization Act of 1949. *Public Administration Review*. 9 (3): 165-174. Summer.

Hennessey, J. T. 1998. "Reinventing" government: Does leadership make the difference? *Public Administration Review*, 58 (6).

Herzberg, F. 1968. One More Time: How Do You Motivate Employees? Harvard Business Review, 46, 36-44.

Hoffman, R. C. and W. H. Hegarty. 1993. Top management influence on innovations: Effects of executive characteristics and social culture. *Journal of Management*, 19 (3): 549-574.

Hoojberg, R. and N. DiTomaso. 1996. Leadership in and of demographically diverse organizations. *Leadership Quarterly*, 7 (1): 1-19.

Ingham, R., Vanwesenbeeck, I., & Kirkland, D. 1999. Interviewing on sensitive topics. In A. Memon, & R. Bull, *Handbook of the psychology of interviewing,* 145-163. New York: Wiley

Ingraham, P. W. and P. W. Colby. 1982. Political Reform and Government

Management: The Case of the Senior Executive Service. *Policy Studies Journal*, Volume 11 (2): 304-317, December.

Jaskyte, Kristina. 2011. Predictors of Administrative and Technological Innovations in Nonprofit Organizations. *Public Administration Review*, 71 (1): 77-86.

Johnson, Judith A. and Pamela W. Smith. 2011. "The National Institutes of Health (NIH): Organization, Funding, and Congressional Issues." Congressional Research Service. June 27, 2011.

Jung, D. 2001. Transformational and transactional leadership and their effects on creativity in groups. *Creativity Research Journal*, 13, 185-195.

Kaiser, R. B., Hogan, R. & Craig, S. B. 2008. Leadership and the fate of organizations. American Psychologist, 63, 96-110.

Kanter, R.M. 2002. Creating the culture for innovation. In F. Hesselbein, M. Goldsmith, and I. Somerville (Eds.), *Leading for innovation*, pp. 73-85. San Francisco: Jossey-Bass.

Kelman, S. 2008. The "Kennedy School School" of Research on Innovation *in Government in Innovations in Government: Research, Recognition, and Replication*. Brookings Institution Press.

Khademian, A. 2002. Working with Culture: The Way the Job Gets Done in Public Programs. Washington, D.C.: CQ Press.

Kimberly, J. R. and M. J. Evanisko. 1981. Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of Management Journal*, 24: 689-713.

King, N. 1990. *Modeling the innovation process: An empirical comparison of approaches*. *Journal of Occupational and Organizational Psychology*, 65 (2): 89-101.

King, N. 1994. The qualitative research interview. In Cassell, C. & Symon, G. 1994. *Qualitative methods in organizational research: A practical guide*. London; Thousand Oaks, CA: Sage.

King, N. 2004. Using interviews in qualitative research. In Cassell, C. & Symon, G. 2004. *Essential guide to qualitative methods in organizational research.* London; Thousand Oaks, CA: Sage.

Knezo, G. J. 2005. *Federal Research and Development: Budgeting and Priority-Setting Issues, 109th Congress*. Congressional Research Service. Accessed on

12-3-2010 at: http://www.fas.org/sgp/crs/misc/IB10088.pdf.

Kohli, J., Gans, J., & Hairston, J. (2011). A better, more diverse Senior Executive Service in 2050. Center for American Progress. Retrieved June 3, 2013, from http://www.americanprogress.org/issues/2011/09/pdf/ses_paper.pdf.

Kotter, J. P. 2001. What leaders really do. *Harvard Business Review*: Dec. 2001, 3-11.

Light, P. 1998. *Sustaining Innovation: Creating Nonprofit and Government Organizations That Naturally Innovate*. Jossey-Bass Publishers: San Francisco.

Linden, R.M. 1990. *From Vision to Reality: Strategies of Successful Innovators in Government*. Charlottesville, Va: LEL Enterprise.

Locke, L. F., Spirduso, W.W., & Silverman, S. J. 2007. Proposals that work: A guide for planning dissertations and grant proposals, 5th ed. Thousand Oaks, CA: Sage.

Lundgren, D. 2010. Taking the Helm: Attracting the Next Generation of Federal Leaders. Senior Executives Association. Accessed on 1-24-2014, at: http://www.seniorexecs.org/images/documents/Full_Report.pdf.

Lynn, L. E. 1997. Innovation and the public interest: Insights from the private sector in M. Moore and J. Hartley Innovations in Governance, *Public Management Review*, 10 (1), 3-20.

March, J. G. and H. Simon. 1958. *Organizations*. New York: Wiley.

Maslow, A.H. 1954. Motivations and Personality. New York: HarperCollins.

Maynard-Moody, S., and M. Musheno. 2003. Cops, teachers, counselors: Stories from the front lines of public service. Ann Arbor: Univ. of Michigan Press.

Mintzberg, H. 1994. The Rise and Fall of Strategic Planning. Prentice Hall: Englewood Cliffs, NJ.

Moore, M. 1995. *Creating Public Value: Strategic Management in Government*. Harvard University Press.

Moore, M., Sparrow, M. and Spelman, W. 1997. Innovation in policing: From production line to jobs shops in M. Moore and J. Hartley, Innovations in Governance, *Public Management Review*, 10 (1), 3-20.

Mumford, M. D. and S. B. Gustafson. 1988. *Creativity syndrome: Integration, application, and innovation*. *Psychological Bulletin*, 103, 27-43.

National Cancer Institute (NCI). nd. About NCI. Retrieved on February 9, 2014, at:

http://www.cancer.gov/aboutnci/overview/mission.

National Cancer Institute (NCI). nd. Congressional Justification Fiscal Year 2013. Retrieved on February 9, 2014, at: http://obf.cancer.gov/financial/congjust.htm.

National Center for Advancing Translational Sciences (NCATS). nd. About NCATS. Retrieved on February 9, 2014, at: http://www.ncats.nih.gov/about/about.html.

National Center for Advancing Translational Sciences (NCATS). nd. NCATS 2013 Budget. Retrieved on February 9, 2014, at: http://www.ncats.nih.gov/files/justification.pdf.

National Eye Institute (NEI). nd. Fiscal Year 2013 Congressional Justification. Retrieved on February 9, 2014, at: http://www.nei.nih.gov/news/congressjust/NEI_CJ2013.pdf.

National Heart, Lung, and Blood Institute (NHBLI). 2009. NHLBI Mission Statement. Retrieved on February 9, 2014, at: http://www.nhlbi.nih.gov/about/org/mission.htm.

National Heart, Lung, and Blood Institute (NHBLI). 2012. NHLBI Office of Management. Retrieved on February 9, 2014, at: https://www.nhlbi.nih.gov/about/oam/.

National Heart, Lung, and Blood Institute (NHBLI). nd. FY 2013 Congressional Budget Justification. Retrieved on February 9, 2014, at: http://www.nhlbi.nih.gov/about/directorscorner/legislativeinformation/congressional-budget-justifications/fy-2013-congressional-budget-justification.pdf.

National Institute on Aging (NIA). nd. About NIA. Retrieved on February 9, 2014, at: http://www.nia.nih.gov/about.

National Institute on Aging (NIA). nd. Fiscal Year 2013 Budget. Retrieved on February 9, 2014, at: http://www.nia.nih.gov/about/budget/2012/fiscal-year-2013-budget.

National Institute of Allergy and Infectious Diseases (NIAID). 2012. FY 2013 Congressional Justification. Retrieved on February 9, 2014, at: http://www.niaid.nih.gov/about/Documents/FY2013CJ.pdf.

National Institute of Allergy and Infectious Diseases (NIAID). 2013. Mission and Planning. Retrieved on February 9, 2014, at: http://www.niaid.nih.gov/about/whoweare/Pages/default.aspx.

National Institute of Allergy and Infectious Diseases (NIAID). 2013. Organization -

Office of Science Management and Operations. Retrieved on February 9, 2014, at:http://www.niaid.nih.gov/about/organization/odoffices/omo/Pages/default.aspx.

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). nd. Mission and Vision. Retrieved on February 9, 2014, at: http://www.niddk.nih.gov/about-niddk/meet-the-director/mission-vision/Pages/mission-vision.aspx.

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). nd. Executive Office. Retrieved on February 9, 2014, at: http://www.niddk.nih.gov/about-niddk/offices-divisions/executive-office/pages/default.aspx.

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). 2012. President's Budget Request, NIDDK 2013. Retrieved on February 9, 2014, at: http://www.niddk.nih.gov/about-niddk/budget-legislative-information/presidents-budget-request-niddk-2013/pages/presidents-budget-request-2013.aspx/.

National Institute on Drug Abuse (NIDA). 2011. Office of Management Vision. Retrieved on February 9, 2014, at: http://www.drugabuse.gov/about-nida/organization/offices/office-management-om.

National Institute on Drug Abuse (NIDA). 2012. Fiscal Year 2013 Budget Information – Congressional Justification for National Institute on Drug Abuse. Retrieved on February 9, 2014, at: http://www.drugabuse.gov/about-nida/legislative-activities/budget-information/fiscal-year-2013-budget-information-congressional-justification-national-institute-drug-abuse.

National Institutes of Health. 2013. About the National Institutes of Health Website. Accessed on 11-21-2013, at: http://www.nih.gov/about/mission.htm.

National Institutes of Health Clinical Center (CC). 2014. Our Organization. Retrieved on February 9, 2014, at: http://clinicalcenter.nih.gov/about/welcome/organization.shtml.

National Institutes of Health. 2013. Office of Management, Vision. Accessed on 11-21-2013, at: http://om.od.nih.gov.

National Institutes of Health. Office of Budget. 2014. FY 2014 Congressional Budget. Accessed on 1-4-2014, at: http://officeofbudget.od.nih.gov/pdfs/FY14/FY%202014_OVERVIEW.pdf.

National Institute of Neurological Disorders and Stroke (NINDS). 2012. Fiscal Year 2013 Budget Request before the House Subcommittee on Labor-HHS-Education

Appropriations. Retrieved on February 9, 2014, at: http://www.ninds.nih.gov/news_and_events/congressional_testimony/fy_2013_budget_request-house.htm.

National Institute of Neurological Disorders and Stroke (NINDS). 2012. NINDS Staff. Retrieved on February 9, 2014, at: http://www.ninds.nih.gov/find_people/ninds/bio_caroline_lewis.htm.

Osborne, S. P. 1998. Naming the beast: Defining and classifying service innovations in social policy. *Human Relations*, 51: 1133-1155.

Ospina, S., and J. Dodge. 2005a. It's about time: catching method up to meaning—The usefulness of narrative inquiry in public administration research. *Public Administration Review,* 65: 143–57.

Ospina, S., and J. Dodge. 2005b. Narrative inquiry and the search for connectedness: Practitioners and academics developing public administration scholarship. *Public Administration Review,* 65: 409–423.

Papadakis, V. and D. Bourantas. 1998. The chief executive officer as a corporate champion of technological innovation: An empirical investigation." *Technology Analysis and Strategic Management*, 10 (1): 89-109.

Partnership for Public Service. 2011. *Leading Innovation in Government.* Accessed on March 20, 2013 at: http://ourpublicservice.org/OPS/publications/viewcontentdetails.php?id=158.

Payne, S. 1999. Interview in qualitative research. In A. Memon, & R. Bull, *Handbook of the psychology of interviewing,* 89-102. New York: Wiley.

Perry, J.L., Hondeghem, A. & Wise, L.R. 2010. Revisiting the motivational bases of public service: Twenty years of research and an agenda for the future. *Public Administration Review*, 70(5), 681-690.

Popejoy, M. 2009. Teaching special topics in public administration using select episodes of NBC's West Wing to support and supplement class lecture and textbook readings. *Public Voices,*11: 41–50.

Quinn, R. E. 1988. *Beyond Rational Management: Mastering the Paradoxes and Competing Demands of High Performance*. San Francisco: Jossey-Bass.

Rainey, H.G. 2009. *Understanding and managing public organizations* (4th ed.). San Francisco: Jossey-Bass.

Remler, D.K. & G.G. Van Ryzin. 2011. *Research Methods in Practice: Strategies for Description and Causation*, Sage, Thousand Oaks, CA.

Riccucci, N. 1995. *Unsung Heroes: Federal Execucrats Making a Difference*. Washington, DC: Georgetown University Press.

Roe, E. 1994. *Narrative policy analysis*: Theory and practice. Durham, NC: Duke Univ. Press.

Rogers, E. M. 1995. *Diffusion of Innovations*. New York: Free Press. 4th ed.

Rosenbloom, D. H. 2003. *Administrative Law for Public Managers: Essentials of Public Policy and Administration.* Boulder, CO: Westview Press.

Schein, E. 1985. *Organizational Culture and Leadership*. San Francisco: Jossey-Bass.

Schin, J. and G.E. McClomb. 1998. Top executive leadership and organizational innovation: An investigation of nonprofit human service organizations. *Social Work Administration*, 22 (3): 1-21.

Seidman, I. 2006. *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York, NY: Teachers College Press Columbia University.

Selznick, P. 1957. Leadership in Administration: A Sociological Interpretation. Harper and Row.

Shafritz, Jay M., Jr. 2004. *The Dictionary of Public Policy and Administration.* Westview Press: Boulder.

Shafritz, Jay M. & Albert C. Hyde. 2004. Classics of Public Administration, 5th edition. Harcourt Brace College Publishers: Forth Worth, TX.

Shafritz, J. M., J. S. Ott, and Y. Suk. 2010. *Classics of Organization Theory*, Belmont, CA: Wadsworth, Thomas Learning.

Simon, H. A. 1997. Administrative Behavior, 4th Ed. Free Press, March.

Singer, M.S. & Singer, A.E. 1990. Situational constraints on transformational versus transactional leadership behavior, subordinates' leadership preference, and satisfaction. The Journal of Social Psychology, 130 (3): 385-396.

Sladppendel, C. 1996. Perspectives on innovation in organizations. *Organization Studies*, 17 (1): 107-129.

Specter, A. 2008. Backing Medical Research and Battling Lymphoma. *NIH Medline Plus*. Summer Issue. 3 (3): 6-7. Accessed on 1-4-2014, at:

http://www.nlm.nih.gov/medlineplus/magazine/issues/summer08/articles/summer08pg6-7.html.

Sorensen, E. and J. Torfing. 2012. Collaborative innovation in the public Sector. The Innovation Journal: *The Public Sector Innovation Journal*, 17 (1).

Taylor, F. 1912. Scientific Management. In Shafritz, J. M. & Hyde, A., Classics of Public Administration, 5th Edition, 36-38. Fort Worth, TX: Harcourt Brace College Publishers.

The White House. 2009. *Transparency and Open Government: Memorandum for the Heads of Executive Departments and Agencies.* Accessed at: http://www.whitehouse.gov/the_press_office/TransparencyandOpenGovernment.

The White House. 2012. Remarks by the President in State of the Union Address. Accessed on 11-25-2013, at: http://www.whitehouse.gov/the-press-office/2012/01/24/remarks-president-state-union-address.

Thompson, V. A. 1976. Bureaucracy and Innovation. University of Alabama Press.

Tierney, P. Farmer, S.M., & Graen, G. B. 1999. An examination of leadership and employee creativity: The relevance of traits and relationships. Personnel Psychology, 52, 591-620.

Trottier, T., M. Van Wart, and X. Wang. 2008. Examining the nature and significance of leadership in government organizations. *Public Administration Review*, 68 (2): 319-333.

Tung, R. L. 1979. Dimensions of Organizational Environments: An Exploratory Study of Their Impact on Organization Structure. *Academy of Management Journal 22*, (4): 672-693.

U.S. Government Accountability Office. 2011. *Government Performance: GPRA Modernization Act Provides Opportunities to Help Address Fiscal, Performance, and Management Challenges.* Accessed on May 15, 2013 at: http://www.gao.gov/assets/130/125777.pdf.

U.S. Office of Personnel Management. 2012. *Senior Executive Service: Facts and Figures*. Accessed on 1-26-2014, at: http://www.opm.gov/policy-data-oversight/senior-executive-service/facts-figures/.

U.S. Office of Personnel Management. 2013. *Overview: Senior Executive Service: Executive Core Qualifications*. Accessed on 4-2-2013 at: http://www.opm.gov/policy-data-oversight/senior-executive-service/executive-core-qualifications/.

Van de Ven, A. H. 1986. Central problems in the management of innovation.

Management Science, 32 (5): 509-607.

Van Wart, M. 2003. Public Sector Leadership Theory: An Assessment. *Public Administration Review* 63(2): 214-228.

Van Wart, M. 2013. Lessons from leadership theory and the contemporary challenges of leaders. *Public Administration Review*, Vol. 73(4), 553–565, July/August.

Waldo, D. 1968. The novelist on organization and administration: An inquiry into the relationship between two worlds. Berkeley: Univ. of California, Berkeley Institute of Governmental Studies.

Walker, R. 2008. An empirical evaluation of innovation types and organizational and environmental characteristics: Towards a configuration framework. *Journal of Public Administration Research and Theory,* 18 (4): 591–615.

Weber, M. 2001. *Bureaucracy*. In W. E. Natemeyer & J. T. McMahon (Eds.), Classics of Organizational Behavior, 3rd ed., 351-357. Prospect Heights, IL: Waveland Press.

Wilson, J. Q. 1989. *Bureaucracy: What Government Agencies Do and Why They Do It*. New York: Basic Books.

Zegans, M. D. 2002. Innovation in the well-functioning public agency. *Public Productivity & Management Review*, 16(2), 141-155. Winter.

Zients, J.D. 2010. Memorandum for the Senior Executive Service. The Accountable Government Initiative – an Update on Our Performance Management Agenda. Accessed on 1-11-2014, at: http://www.whitehouse.gov/the-press-office/2010/09/14/presidential-memorandum-accountable-government-initiative.

APPENDIX A

Interview Guide

Background

1. Why did you choose to become a Senior Executive Service member?
2. How long have you served in this capacity?
3. Please tell me about your position. What do you like the most about your position? What do you like the least?
4. Have you moved across the government as a Senior Executive? Why or why not?
5. What three experiences, if any, do you believe were the most important experiences that helped to prepare you for your current position?
6. Is there any unique quality you feel you bring to this position?

Leadership Approach

7. Do you consider yourself a transactional or transformational leader? What does that mean to you?
8. What is your style of leading? How would you describe your approach to leadership?
9. What do you consider to be your greatest strength as a leader? Weakness?
10. How did you learn your approach to leadership? Where does your approach to leadership come from?
11. What do you consider to be the most important motivating factor for your subordinates to accomplish a task? Why?
12. What three things, if any, do you value the most in life? Do they play a role in your leadership style? If so, how?

Innovation

13. Is administrative innovation important to you as a leader in your organization?
14. What does it mean to innovate?
15. Do you believe innovation is mandated, created, or self-initiated and regulated?
16. How would you characterize it?
17. What are the terms and conditions of innovation?
18. Do you have an innovation strategy for your organization?
19. How would you characterize innovation if you saw it in your staff, outputs, and outcomes?
20. What would you say about your role in supporting innovation within your organization?

APPENDIX B

INVITATION E-MAIL

Doing More with Less: An Assessment of Senior Executive Attitudes and Behaviors toward Innovation in a Federal Agency

TO: NIH SES member

SUBJECT: NIH Senior Executive Service Study

Dear NIH SES Member,

I am conducting a research study on NIH senior executives' attitudes and behaviors towards innovation within the administrative management of your Institute/Center. This study is being conducted as part of my University of Baltimore Doctor of Public Administration program requirements. I invite you to participate in this study.

As an Administrative Officer, I understand the importance to you of having knowledge and understanding of how to identify, disseminate, and act on innovative ideas. The data generated from the study has the potential to improve the use of innovative practices while enhancing NIH executive training and development programs.

An e-mail will be sent to you soon with the meeting details of your interview with me. The interview will take about an hour to complete.

Your participation will be greatly appreciated. Please contact me if you have any questions.

Respectfully,

Mark D. Stevens
Doctoral Candidate

John J. Callahan, Ph.D.
Dissertation Chair

APPENDIX C

QUALITATIVE DATA PREPARATION AND TRANSCRIPTION PROTOCOL

Doing More with Less:
An Assessment of Senior Executive Attitudes and Behaviors
Towards Innovation in a Federal Agency

Interviewer: Mark D. Stevens, DPA Student

Interviewee: NIH SES Member Participant

Location: NIH, Bethesda, MD

Date:

Time:

(Start of Interview)

I: As a volunteer in this study, do you agree that you have read the consent form and understand the terms of your voluntary participation?

P: Yes, I understand and consent to the terms.

I: Thank you.

TAPE RECORDER IS STARTED.
RESEARCHER BEGINS TO USE INTERVIEW GUIDE.

END OF INTERVIEW—(1 TAPE TOTAL); VERIFIED THAT SIDE B OF TAPE 1 IS BLANK.

APPENDIX D

INFORMED CONSENT FORM

Doing More with Less: An Assessment of Senior Executive Attitudes and Behaviors towards Innovation in a Federal Agency

Whom to Contact about this study:
Principal Investigator: Mark D. Stevens
Department: College of Public Affairs
Telephone number: 240-601-3337

CONSENT FORM FOR PARTICIPATION IN RESEARCH ACTIVITIES
Doing More with Less: An Assessment of Senior Executive Attitudes and Behaviors towards Innovation in a Federal Agency

I. **INTRODUCTION/PURPOSE:**
I am being asked to participate in a research study. The purpose of this study is to share my views and experiences as a Senior Executive Service (SES) member in supporting administrative innovation within my agency. I am being asked to volunteer because I serve in an executive role in my agency's administrative management operations. My involvement in this study will begin when I agree to participate and will continue until May 2014 when the research is complete. 10 individuals will be invited to participate in this study.

II. **PROCEDURES:**
As a participant in this study, I will share my experiences as a senior executive in an interview that will last approximately 45 minutes to 1 hour, and detailed note-taking will also occur. During that time, the researcher will explain what that the research is about and the potential risks and benefits. The researcher will also go over a consent form with me, after which I will be free to consent to the interview via signature or decline. Following this, the researcher will outline that the interview will be tape recorded and with my consent, proceed into questions and answers using an interview guide. As the participant, I will be informed by the researcher that I have the option to refuse the tape recording. If I decided to refuse the tape recording, the interviewer will take detailed notes as an alternative. At the conclusion of the interview, I will be asked to complete a brief follow-up interview of 30 minutes to read a typed transcript of the interview to ensure that my thoughts and ideas are being represented accurately by the researcher. The interview(s) will be tape-recorded and transcribed by the researcher. The interviews will be conducted in a private location of my choice, including work office or conference room, or by phone if needed. I have read this form prior to giving consent to participate.

III. RISKS AND BENEFITS:

My participation in this study does not involve any significant risks and I have been informed that my participation in this research will not benefit me personally, but the potential benefits of my participation are to learn: 1) What Senior Executive Service members are doing in supporting administrative innovations within an agency. How they relate to the emotions that managing or being successful can produce. 2) What bearing a particular leadership style has upon a project and/or process and if that style produces administrative innovations in the federal government and; 3) How these responses can contribute to enhancing innovation aspects within training and development programs for current and rising SES members.

IV. CONFIDENTIALITY:

Because of the unique sample size of Senior Executives at the National Institutes of Health, anonymity cannot be guaranteed. The information learned from this study will be reviewed thoroughly by the researcher and me during the follow-up interview to ensure my views and comments are recorded accurately before publishing. I am free to withdraw this consent and discontinue participation in this project at any time. All information collected in this study will be stored in a locked file cabinet in a locked room. Only the investigator will have access to these records. By signing this form, however, I allow the research study investigator to make my records available to the University of Baltimore Institutional Review Board (IRB) and regulatory agencies as required to do so by law. Consenting to participate in this research also indicates my agreement that all information collected from me individually may be used by current and future researchers.

V. SPONSOR OF THE RESEARCH:

This research study is for a doctoral dissertation.

VI. COMPENSATION/COSTS:

My participation in this study will involve no cost to me. No compensation is available for my participation in this research.

VII. CONTACTS AND QUESTIONS:

The principal investigator, Mark D. Stevens, a doctoral student from the College of Public Affairs at the University of Baltimore, has offered to and has answered any and all questions regarding my participation in this research study. If I have any further questions, I can contact Dissertation Committee Chair/Faculty Advisor Dr. John Callahan, Executive in Residence, University of Baltimore, via e-mail at jcallahan@ubalt.edu.

For questions about rights as a participant in this research study, contact the UB IRB Chair: Eric Easton, Chair, University of Baltimore Institutional Review Board, 410-837-4874, eeaston@ubalt.edu.

VIII. VOLUNTARY PARTICIPATION

I have been informed that my participation in this research study is voluntary and that I am free to withdraw or discontinue participation at any time.

I will be given a copy of this consent form to keep.

IX. SIGNATURE FOR CONSENT

The above-named investigator has answered my questions and I agree to be a research participant in this study. By signing this consent form, I am acknowledging that I am at least 18 years of age.

Participant's Name: ______________________ Date: ____________________

Participant's Signature: ____________________ Date: __________________

Investigator's Signature: ____________________ Date: __________________