

POLITICS, BUREAUCRACY, AND EMPLOYEE RETENTION:

TOWARD AN INTEGRATED THEORY OF TURNOVER

INTENT IN THE FEDERAL GOVERNMENT

By

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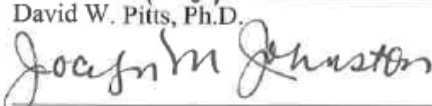
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DEDICATION

To Isabel, Caroline, and Jon

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ABSTRACT

This study begins with a simple idea; if one regards the work of government as fundamentally political, why do researchers so rarely explore how that political world impacts the lives of careerists and their career decisions? So much of the research on job choices is isolated to managerial and demographic variables inside of an organization. Understanding the impact of these internal elements such as pay, mission, and relationships with coworkers are in and of themselves important for managers in building retention plans. However, this approach ignores what the open systems literature makes so clear: organizations and their operations shape and are shaped by their environment, just as people shape and are shaped by their organizations. In the process, it also ignores all that we can learn from public administration and political science literatures on relationships between agencies/individuals and political actors including the White House and appointees, Congress, and interest groups.

My approach to studying turnover intent is novel in incorporating both internal and external organizational factors into an integrative theoretical framework for studying turnover intent, in deriving and testing a baker's dozen of hypotheses derived from that framework, and by "testing" and informing those findings with interviews conducted with federal employees. My study is also unique in integrating three research approaches to explore turnover intent: archival research on agency political environments; statistical analysis using logistical regression techniques of questions culled from iterations of the Federal Viewpoint (FedView) Survey

between 2006 and 2012 and that prior research has found affect turnover intent by employees; and focus group and semi-structured interviews with both careerists and political actors. My analytical focus was on four agencies within the U.S. Department of Health and Human Services with different responsibilities, task environments, and histories: the Centers for Disease Control and Prevention (CDC), the Centers for Medicare and Medicaid Services (CMS), the Food and Drug Administration (FDA), and the National Institutes of Health (NIH). My comparative agency approach is also uncommon in the literature on turnover intent, as is my focus on the perceptions of high-level career civil servants (GS 13-15).

My analysis offered mixed support for the findings of prior research on turnover intent, as well as support for incorporating both internal and external factors in future research. I find that internal organizational factors partially explain decisions to change jobs. However, I also find substantive and statistically significant differences in turnover intent across the four agencies related to the stability-turbulence factors in their political environments. I also find that turnover intent needs to be explored in a more nuanced way than in prior research which treats it as a decision to stay in or leave the federal government. Specifically, it needs to be disaggregated into preferred future jobs—namely, to stay in one’s job, leave the federal government entirely, or change jobs within the federal government but not leave it. In addition, the decision to leave government appears to be driven by different factors than the decision to move to other jobs within the federal government. My findings also suggest that predispositions toward turnover intent vary over time, thus calling into question static measures of variables in favor of ascertaining their cumulative effects over time or the conjuncture of different variables at different points of time.

I conclude by assessing the implications of my findings for practice, future research, and theory building on turnover intent. Most significantly, the finding of environmental differences across agencies and the likelihood that they affect turnover intent directly and indirectly through their impacts on internal organizational variables begs further research. Needed are studies that test and further refine our understanding of the relationships I posit in my integrative framework, with a special focus on identifying the precise causal mechanisms involved. I offer a range of strategies for doing so that involve both quantitative and qualitative analyses, individually or jointly, and that stress the need to disaggregate turnover intent rather than treat it as solely a decision to stay in or leave the federal government. In terms of practice, I discuss the implications of the findings for future human resource management strategies, as well for the need they identify to reframe in more useful ways the “quiet crisis” arguments that have occurred since the first Volcker Commission report in the late 1980s.

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CHAPTER 1
POLITICS, BUREAUCRACY, AND TURNOVER INTENT
IN THE FEDERAL GOVERNMENT

With 60 percent of the white collar federal workers and 90 percent of executives eligible to retire by the year 2016 (GAO 2007), the federal government is at a critical juncture where retaining the best and brightest in federal service is of the utmost importance. The National Commission on the Public Service (Volcker Commission) in 1989 asserted that there was a “quiet crisis” in public service where the highest quality employees were leaving federal service due to pay and opportunities for advancement. When they convened again in 2003, they concluded that the problem had continued to grow (Lewis 2008). By 2008, Light believed that the “quiet crisis” named by the Volcker Commission had become a “deafening crisis” as dissatisfaction levels were high. While we have not yet experienced a mass exodus of federal workers, an improving economy and an aging workforce indicate that high turnover rates among the most experienced federal workers is likely.

At the same time that a large portion of upper-level careerists are eligible to retire, there is a shortage of current careerists who are prepared to take on the roles of those who are likely to leave. The Government Accounting Office (now the Government Accountability Office) suggests that government performance could suffer because of lost institutional knowledge stemming from this shortage and imminent hiring needs (GAO, 2009). Those who do have the knowledge and experience to step into the shoes of those who leave, also have a variety of alternative job opportunities in nonprofits, contracting firms, state and local governments, think-tanks, and other private sector firms.

This perfect storm of exit opportunities through retirement or other jobs, and shortages of qualified employees inside of government creates an important challenge for leaders in federal agencies. We do know that well-executed retention programs can effectively improve job satisfaction and reduce turnover (for an example, see Abbasi and Hollman, 2000). The challenge is to properly design programs for individual agency needs.

But if we rely solely on internal organizational factors in the discussion of retention, which has largely been the case in prior research on turnover intent, we ignore the broader environment that impacts organizations. Moreover, by treating turnover intent as merely a choice between “staying and going,” as most prior research does, we treat predispositions to leave one’s agency as opposed to leaving the federal government as the same when clearly they are not of equal magnitude. Nor are they likely to have similar motivations to exit. Indeed, we may be overstating the “quiet” or the “loud” crises in the federal government by thinking that all turnover intent involves leaving the government entirely. In turn, distinguishing between different exit decisions allows us to better target retention programs, future research agendas, and theory building on this important issue for the US.

To these ends, I offer and test empirically in this dissertation a more integrative model of determinants of turnover intent in public agencies than currently exists in this literature. More precisely, that model incorporates both internal and external organizational variables that distinguish between different types of turnover intent (leaving one’s agency and leaving the federal government), and that posits both direct and indirect effects of agencies’ political environment on these predispositions. I include internal motivational and organizational factors typically identified in studies on turnover, turnover intent, and job satisfaction studies. These include pay, opportunities for advancement, connection to mission, and intrinsic motivation. I

then extend the analysis into the broader environment by using the open systems literature as a bridge that connects internal organizational questions to the political science and public administration literature on the relationships between the bureaucracy and Congress, interest groups, the White House, and appointees. In doing so, I take as my analytical focus four major agencies in the U.S. Department of Health and Human Service (DHHS); the Centers for Disease Control and Prevention, the Centers for Medicaid and Medicare Services, the Food and Drug Administration, and the National Institutes of Health.

To inform the analysis, I use three research methodologies. The first is to conduct archival research on the four agencies in my study. This provides information on the history of the agencies as well as their political environments, in an effort to assess commonalities and differences in the nature of these environments that might directly or indirectly affect employees' turnover intentions. The second approach is a quantitative analysis using multiple binary logistical regression analyses of attitudinal data from multiple iterations of the Federal Viewpoint Survey (previously, the Federal Human Capital Survey). This technique allows me to assess the relative impact of those internal and external organizational factors that can be operationalized to help directly account for employees' turnover intent. The data preclude me from testing the indirect effects. Nonetheless, for theoretical reasons, it is important to understand conceptually the potential for indirect effects of the political environment on internal organizational factors typically studied in the turnover literature. Finally, I conduct a focus group interview of federal employees from across the government and participating in the Key Executive MPA program and American University. I also conduct semi-structured individual interviews with participants from the four agencies in my study, careerists in other agencies including one that is highly politicized and one that is primarily scientific, and with individuals in the political arena with

experience as congressional staff, appointees, and lobbyists. These serve to inform the case analyses of the agencies and the interpretation of the statistical findings more generally.

Consistent with the logic of the turnover intent model I offer and the hypotheses derived from it, I find that internal organizational factors partially explain decisions to change jobs, but agency and time differences remain even after controlling for those factors. I also find that the decision to leave government is driven by different factors than the decision to move to other jobs within government. Through interviews, I see that participants are acutely aware of symbolic messages on how their work is valued sent from the political world. On whole, interviewees are also deeply connected with their agency mission and had a strong desire for the public and political world to recognize the importance of their work. This leads me to conclude that there may be both a direct and an indirect path from frustration with and stress associated with politics to reduced job satisfaction that contributes to expressions of turnover intent. Through interviews and archival research, I also find unique pathologies within agencies that evolve out of their political environment. This information provides a more nuanced approach to practitioners developing retention strategies and builds a new perspective into theoretical explorations of turnover intent by conceptualizing turnover intent in terms of the political environment and distinguishing between future job preferences. A better understanding of these two questions will allow agencies to build retention plans that incorporate their unique environments and recognize that plans need to adjust to the type of turnover an agency most experiences. Such an approach also opens new avenues for researchers on how the political environment influences internal agency operations and thus employees. These connections offer great possibilities for improving our understanding of job satisfaction and turnover intent, but also for understanding how agency work products are altered.

The remainder of this chapter begins setting the stage for analysis. I start with a fuller discussion of why studying turnover intent is important. With this as background, I turn next to a brief overview of why people are thought to want to change jobs. Following this I address what has been a “missing link” in prior research—an agency’s political environment—and suggest how and why this should be an important consideration in studying turnover intent. The chapter concludes with a summary of what follows in subsequent chapters.

Why does it matter if people want to leave?

The study of turnover intent is important, as it is a critical step in the exit process and an indicator of high levels of dissatisfaction or opportunities not available with one’s agency or the federal government that retention policies might be designed to reduce. While not all those who express intent to leave actually leave, a portion of them will convert intent into exit. In fact, some claim that expressing intent to leave is the strongest predictor of actual turnover (Mor Barak, Nissly, & Levin 2001). However, one must view turnover intent as a step in the turnover process. In this process, different elements impact job satisfaction that then correlate with turnover intent. In general, models of turnover find that there is a strong correlation between job satisfaction and turnover intent as well as a correlation between turnover intent and actual turnover (see Podsakoff et al. 2007 for an example). This leads researchers to present turnover as a process where dissatisfaction translates to intent and then turnover.

Expressions of turnover intent also require attention because they can be symptoms of an underlying issue within an organization. Considering a career change is a signal that the factors that an individual dislikes about their job and/or workplace outweigh those that they do like to the extent that they contemplate leaving or that other organizations better accommodate. This level of frustration or perception of comparative disadvantage could impact organizational productivity, even if people do not act on their turnover intent (Kruegman & Killham, 2006).

In cases where turnover intent does translate to actual job changes, turnover can be expensive in terms of replacement and training costs, institutional knowledge, and staff morale (Abbassi & Hollman, 2000; Partnership for Public Service & Booz Allen Hamilton, 2010; Cascio, 2006). From my interviews with upper-level employees from across the government, it appears that in practice, federal agencies are not doing a good job at handling the passage of knowledge from exiting employees to others in the organization, amplifying the expense of employee turnover. In story after story, agencies did not have any continuity when people changed jobs. One interviewee, on describing turnover in a public affairs and congressional relations office said, “It is a churn – there is very little knowledge transfer. They didn’t do exit interviews, they didn’t even do hand-over assignments. People were just burned out and walked away” (9/11/2013). Another recalled his experience in nationwide stakeholder meetings, “The number one problem that was identified was being able to maintain relationships and train up people into these relationships as people moved out of one job and into another one. And there were some times that people were moving within the same organization, just to a different place, but the relationships consistently suffer” (9/11/2013).

Even when agencies do conduct activities to mitigate the costs of turnover, it does not always ensure continuity. As one interviewee described,

“I just had three people choose to retire last year in December and although we had exit interviews, it was really just like, ‘This is where I am leaving my information, you can find it here, here is a copy, and that’s it.’ I don’t even feel comfortable, because we didn’t set up an agreement to call them and question them. So no, we don’t have anything in place in our agency where we will follow up with those who have retired” (9/11/2013).

Turnover can be particularly expensive to organizations requiring special skills. A respondent discussed a new field where the two key experts worked in her agency,

“When people come in, they actually don’t come in with these skill sets. There is nowhere in the United States where they are going to get training in this. They come in with a wide variety of backgrounds and they have to be very analytical. They get trained up by these two guys that are still there. When people decide to leave, it’s almost like you can hear the sucking gap go right out, because now we are on the hunt again for an engineer, statistician, whatever, to start all over again” (9/11/2013).

Exploring questions of turnover intent are also important because of the possible implications of self-selection. If there are fundamental differences between those who stay and those who leave, these differences may show in agency work products and decisions. For example, if the distinction between those who want to leave and those who stay is their tolerance for risk-taking, an agency may become less open to change and driven to maintain the status quo. The cycle of self-selection could, over time, shift an agency culture in much the same way that Down’s described in his “Life Cycle of an Organization” (1967). Down’s argued that organizations are founded by zealots, built by those who wanted to climb the career ladder, and are eventually maintained by “conservers” whose goal is stability over change.

For example, one interviewee said,

“I would say that the phenomenon of why people leave federal employment is less interesting than the question of why so many stay in the same jobs for so many years. It seems that the incentives for personal development that are necessary in the private sector for survival aren’t as present in the federal sector

for some reason. As a result, we see a lot of stagnant people. There are a lot of Feds who talk about never having a desire to leave to a different job, so we have these people that stay in their job doing the same work for years and years with the focus on their retirement” (9/11/2013).

Turnover is a reality in any organization and can be both positive and negative. There are times when staffing changes energize an organization and times when critical skills are lost. The goal for public managers is not to stop turnover. Rather, it is to control turnover by encouraging the best employees to stay, and having systems in place to minimize institutional knowledge losses and hiring/training costs.

Why do people leave or want to change jobs?

But why do federal employees decide to leave their jobs? Academics and the public frequently make behavioral assumptions about federal employees as a group. For example, some say that people do not want to leave federal jobs because of the job security and benefits. This assumes 1) that turnover is significantly lower for federal employees than other groups, 2) federal jobs are more secure than others, and 3) federal benefits are superior to those of other employers. We base these and other assumptions on demographic information, scattered survey results and studies, and anecdotal information.

The motivation literature provides a laundry list of factors that influence one’s desire to change jobs. These include job satisfaction, pay satisfaction, opportunities for advancement, fit with various people in the organization and the organization itself, goal ambiguity, intrinsic motivation, and connection with an organization’s mission (for examples see Ting, 1997; Romzek, 1990; Rainey & Steinbauer, 1999; Ting, Wright, & Davis, 2003; Bertelli, 2007; Kristof 1996). While there is substantial support for these factors, there is not a lot of information about

when any of these factors are more likely to become important to people. This diminishes the practical usefulness of the motivation literature for managers.

In interviews with practitioners, many of these variables are cited as reasons that people leave government. In a focus group interview with high level careerists from across government that I conducted, three factors emerged as frustrations that translate to people wanting to change jobs; stagnation, bureaucracy, and politics. Consistent with academic inclusion of opportunities for advancement and intrinsic motivation for personal growth (for examples see Sigel, 1999; Bertelli, 2007; and Cho and Perry, 2011), many respondents felt that the only way to move forward in one's career or be challenged was to change jobs. One person recalled an exit interview where they were told, "I don't see a future here. I can continue and do this as long as I want to, but there is no career path for me. As a result, if I want to stay stagnant, I stay here. If I want to actually do anything else, I have to go outside of government" (9/11/2013).

The bureaucratic process can also become overwhelming. Another respondent in that focus group said, "Bureaucracy – their [employees who left] expectations were not met. People came in with an idealistic sense of purpose. Then they get in government and experience the bureaucracy, and they get stuck and disenfranchised" (9/11/2013). The political realities of working for the government were a third striking reason that drove people to change jobs, or, at least, express a strong sense of frustration. As one interviewee stated, "I think a lot of people leave because they feel pressured by 'politicals' to control the message. You do your analysis, and that is your analysis. Then you are told to control the message" (9/11/2013).

While the question of people leaving government is important, there is another option for people in federal service; moving within the federal government. Much of the current literature on turnover intent treats the decision to change jobs as a binary choice between staying and

going. However, considering future career preference may provide a richer and more contextual perspective on careerist behaviors. The decision to leave government altogether may be triggered by a different set of factors than to the desire to change within government. For example, because the pay structure is uniform across the federal government, pay satisfaction will probably not be a factor in the choice to move within the federal government. If one does not make the distinction between leaving government and moving within government, the data could show weaker findings for the importance of pay than if one breaks apart future job preferences.

Agency culture also may play an important role in the desire to move within the federal government. Interviewees described a wide variety of cultures impacting turnover patterns. Some described their agencies as having a “family relationship” where there is a strong sense of group and people rarely leave. Others describe agencies where there is a clear path from entry-level positions to grow into leadership jobs. However, many describe situations where the culture of the agency does not allow mobility without changing jobs.

What about agency environment?

As you will read in greater detail in Chapter 2, studies of motivation and turnover intent have focused on internal organizational questions, largely ignoring the recognition by the systems literature that organizations do not operate in isolation. Rather, the open systems literature tells us that an organization actively influences and is influenced by its outside environment (Scott, 1961; Burns & Stalker, 1961; Hannan & Freeman, 1977). Federal agencies are nested in a political environment that includes Congress, the White House and Office of Management and Budget, the courts, other agencies, interest groups, contractors, the media, and

general public. It is reasonable to say, using the open systems perspective, that these relationships influence the operations and culture of an agency.

However, there is little research on how that outside environment filters into an organization's behavior and culture, and then impacts individuals within an organization (but for recent research on the influence of the political environment on organizational effectiveness, see Stazyk and Goerdel 2011; Stazyk, Pandey, and Wright 2011; and Davis and Stazyk 2014). If an organization is truly influenced by its environment, there are two ways that this may appear in quantitative data. First, after controlling for variables commonly associated with turnover intent, there will still be variation among agencies. And second, turnover intent will vary over time, reflecting changes in the environment as well as other organizational changes. Quantitative analysis offers a tool to identify if the environment matters to an organization, but does not allow the nuanced understanding needed to sort out internal from external environmental factors or provide explanations. For this, qualitative data is helpful in categorizing public agencies in order to maximize variation in agency selection. The qualitative data allows me to identify and posit unique elements within agencies stemming from the political environment and identify factors that apply across agencies. Finally, it allows me to indirectly "test" statistical findings to see if they comport with interview data, and to offer help in interpreting statistical results.

Tensions between political appointees and careerists are normal in the American system because of the distinct career incentives and time perspectives of the two groups. Moreover, they can be healthy for a democracy, when tensions are creative: careerists bring institutional memory and expertise (see Gailmard and Patty 2013) while political appointees can bring new perspectives and innovation. Presently, however, careerist relationships with the political world are strained as much as, or even more than, during the highly contentious Nixon and Reagan

presidencies. In the midst of partisan battles over the size of government, sequestrations, furloughs, and full-blown government shutdowns, careerists perceived that they are pawns in a greater political game. Many careerists who feel strongly about their agency's mission and their personal role face being dubbed "non-essential" and are coping with reduced and delayed pay. Moreover, many careerists today are angry at the Obama administration for keeping them in the dark in several policy areas, including health care reform.

A Department of Defense careerist, for example, discussed her reaction to furloughs in the summer of 2013:

"It doesn't really matter if we come to work or not every day if we could just be gone. Everybody was just like, 'Alright, we'll just slide all of the deadlines and we'll just get to it when we get to it'. Personally, I really started questioning the purpose and the mission of DoD, and why I am actually there. I didn't want to leave the federal government, because I still believe in public service, and I knew this was the area I want to work in, but I don't think I want to work for DoD. So when you talk about the impact that Congress has on the federal government, I think that it potentially has a big impact. I heard that DoD leadership furloughed people when we had the money to pay people. We chose to furlough them to make a point to Congress. However, as my boss articulated it, it created a workforce of clock watchers, because now everybody is not willing to give their discretionary time any longer; they are willing to give you eight hours a day which is what you paid for" (Interview 9/11/2013).

The strained relationship with Congress described by interviewees is not only a symptom of the current political environment. Presidential candidates have been "bureaucrat bashing"

since the early 1970s and similar campaigning against the bureaucracy occurs in Congress.

Careerists recognize this tension as an ongoing reality instead of a temporary condition.

According to one interviewee,

“I would say that in my near 30-year career, there has never been a greater chasm between the executive and the legislature. And I think there has been a general lack of understanding of the executive by the legislative because of the greater turnover in the legislative. I’ve encountered numerous times where there is a lack of patience, lack of understanding, on behalf of the legislative branch as far as the executive” (Interview 9/11/2013).

Another interviewee, who had experience as a congressional staffer and a careerist expanded on this point, “I would agree that there is a chasm, but I would say that it goes both ways, because I would say, aside from a few in the upper echelons who in some cases came from Capitol Hill or had a lot of experience, it’s not just a lack of understanding. There is actually a lack of *respect* on both sides [emphasis added]. It goes both ways” (Interview 9/11/2013).

Similar tensions exist between careerists and other components of their environment, most notably the presidency. A key question for research on turnover intent is whether individuals in different agencies experience the political world in a similar way, or if differences in agency relationships with other entities show up in employee perceptions of their agencies and jobs. Key in the interpretation of the political world is to incorporate the findings of the presidential literature. Research indicates that presidents politicize the bureaucracy to control it given that they are held accountable for bureaucratic actions, and to use the bureaucracy to achieve their policy goals (Nathan, 1983; Waterman, 1989; Durant, 1992; Maranto, 1993; Lewis,

2008). This implies that agencies will experience different relationships with the political world depending on the political salience of their work.

Key Research Questions and Approaches

The primary goal of this dissertation is to address existing gaps in our understanding about the factors that lead to turnover intent in federal agencies. As noted earlier, otherwise excellent, important, and informative prior research has relied primarily on testing internal organizational factors to predict and account for turnover intent. While this is certainly an important focus and has leavened our understanding of federal employee turnover, it fails to adequately consider the link between these factors and the political environment of federal agencies. Thus, in contrast to prior research that focuses on management practices in public agencies to determine the sources of variation in employee turnover, I expand the theoretical lens to include both the direct effects of external environments on turnover intent, as well as their indirect effect as a determinant of agency internal operations that then filter into individual employee responses to their job.

In addition, there is not much work about how specific groups of federal employees differ from each other, and research often makes inappropriately broad policy recommendations on the basis of findings that – if disaggregated – would not be advisable for some agencies to implement. For example, the field has produced very little research about how the type of work an agency does – regulatory, research-based, or service delivery – affects employee turnover intent. Similarly, one could consider how the amount of discretion an agency has impacts employees. Vast cultural and operational differences also exist between departments and agencies that are lost when employees and/or agencies are aggregated government-wide. My integrated approach to studying turnover intent using mixed methodologies allows me to bring

disparate literatures and ideas together to create a new, more holistic understanding of the experience of upper-level employees and the impacts of the political environment on their jobs and career choices.

As noted earlier, to address these gaps in our understanding of federal employee turnover, this dissertation explores turnover intent among federal employees by (1) using a more in-depth, agency-specific approach than is conventionally used, and (2) applying leading public management theories, as well as lessons from the literatures on organization theory and behavior, congressional oversight and interest groups, the administrative presidency, and political appointee-careerist relations. Doing so allows me to discuss factors influencing careerist job choices and agency interactions with political institutions in order to understand differences in turnover intent in four agencies within the U.S. Department of Health and Human Services (DHHS). The four agencies are: the Food and Drug Administration (FDA), the Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH), and the Center for Medicare and Medicaid Services (CMS).

I chose these four agencies to maximize variation in agency type (and presumably, differences in external political environments that prior research indicates may directly and indirectly affect turnover intent). Each of the agencies has a different primary function and therefore, is likely to have different relationships with the political world. FDA represents a regulatory agency, CDC is a surveillance and public education agency, NIH is a research and grant-making entity, and CMS is an insurance service provider. I elaborate and extend these ideas in this dissertation in original ways to incorporate employee turnover intent as yet another behavioral trait that is a function of the external political environment adduced from agency differences. Thus, unlike in prior research on federal employee turnover intent, I propose that an

organization's political environment affects the individual's workplace, which in turn, influences upper-level career staff's intent to leave or stay.

DHHS was chosen as the study's analytical focus because it is one of the largest departments in the U.S. federal government. Including Medicare and Medicaid, DHHS accounts for almost 25 percent of federal spending (www.hhs.gov). While all of its over 300 programs are intended to work to improve health and/or human services, the approaches taken by each are vastly different from one program to the next. These programs are housed in eleven operating divisions, in addition to the Office of the Secretary (OS). My focus on four agencies housed in the same department also "controls" for department-level factors that are common to all the agencies. Choosing agencies in different departments would not have let me do that.

After establishing these differences, I then ask whether there is a difference in turnover intent among the NIH, CDC, CMS, and FDA. Then, where differences exist, I ask why this is the case when there are so many similarities: they work for the same department, on the same basic issues (health and human services policies), under similar human resource structures. While DHHS agencies do have commonalities, they also operate both through DHHS as a "holding company" and independently with unique relationships to Congress, the White House, appointees, and interests.

As also noted earlier, the data informing my analysis come from three sources; archival research, semi-structured interviews, and multivariate statistical analyses. More specifically than articulated earlier, I use archival research techniques to review the histories of the four agencies and gather information on their political environment and issues occurring during the time period studied. This information includes the inception and evolution of the agencies, contested issues during the years included in the study, measures of the political environment including changes

in budgets, numbers of full-time employees, congressional testimony, ratios of appointees to careerists, FTEs, and *New York Times* articles.

With this as contextual background, I also conduct a quantitative analysis using the FedView Survey, merging data from 2006, 2008, 2010, 2011, and 2012. Using multiple years is important for three reasons. The first is that multiple years eliminates the question of whether my findings are an anomaly versus consistent across time. The second is that if one believes that their environment impacts organizations, change over time is expected, as an organization is an evolving being rather than a static entity. The third reason is that the years in my study represent different political and economic conditions, ranging from the Bush administration, to an election year, to the Obama administration, and economically from before the Great Recession to the early recovery years. I examine factors that are associated with turnover intent among middle-to-upper level careerists (GS 13-15) in FDA, CDC, CMS, and NIH.

Specifically, I use multiple binary logistic regression analyses to distinguish among those with no turnover intent, those who want another federal job, and those who want to leave the federal government. Retirees are excluded from this study because the choice to retire is based on a more complex set of factors such as age, financial ability, health, and family needs. The distinction among groups is critical because future job preference may be linked to specific management issues. Again, questions in the FedView Survey allow me to control for variables identified and tested in various research literatures on employee turnover that have not been integrated previously in a single study with external environmental factors, including demographics, job fit, satisfaction measures, opportunities for advancement, and goal ambiguity.

It is especially useful to focus on senior leadership because, while all employees are involved with policy and decision-making to some degree, these higher-level employees are

more likely than those at lower levels to be affected by environmental factors. This is because of their direct work with political appointees, higher level of authority, and enhanced discretion. This is also a crucial group to understand because staffing changes at this level are particularly expensive, both fiscally and institutionally. While turnover is always expensive to organizations in terms of hiring and training new employees as well as reduced productivity (Lee and Whitford 2008), GS 13-15 employees provide technical and institutional knowledge that is critical for effective policy-making and particularly difficult to replace.

With the role of the external political environment so central to my analysis, it is important to keep one point in mind. As you will see in Chapter 3, I use a number of measures in my archival research to place the history, work, politicization, and challenges of each agency in context for the reader, and to identify differences among them that might account for variations in turnover intent among their employees. As noted earlier, these include measures of political appointee/careerist ratios, media coverage, congressional oversight hearings, and such.

As you will also see in that chapter, these measures vary greatly over the years under examination and they wind their way through various stages of the policy process. For example, an issue that receives congressional attention in one year may appear in agency budgets and federal register documents the next year, followed by press coverage of implementation, and then revive at another point in time. Nor is there any single point in time where all of them increase or decrease together to give a clear image of political attention, conflict, stability, or politicization. Relatedly, differences in the political appointee/careerist ratio--an accepted indicator of politicization in the presidency literature (Lewis 2004)-- are numerically too small to have substantive meaning, and they too change over time. Likewise, it is more relevant to consider changes in press coverage for one agency than the raw number of stories comparing

agencies because the number of stories per year is often dictated by the nature of agency work. For instance, because of its impact on business, the FDA averages 528 stories a year (just under one and a half stories per day) in the *New York Times*, yet CMS only averages 58 stories per year. All these within-year and across-year combinations render a summary statistic regarding the environment at any one point in time uninterpretable, and even meaningless.

Thus, as a proxy measure for the political environment in my logit models, I instead use an agency dummy variable to see if levels of turnover intent vary across them. One learns from the organization theory literature reviewed in Chapter 2 of this study that different types of agencies have different levels of turbulence or instability in their political environments, and that this can affect agency behavior and operations (Lowi 1964 and Wilson 1989). The greater degree of turbulence or instability in political environment an agency experiences, the more difficulty in managing that organization and the greater level of political scrutiny, politicization and micromanagement of that agency by external actors (Burns & Stalker, 1961; Hannan & Freeman, 1977). From this, in turn, I posit that the greater the degree of environmental scrutiny, instability, or turbulence an agency faces, the greater the amount of stress-inducing management challenges they face. And higher levels of stress are likely to translate into higher dissatisfaction that, in turn, increases the desire to exist an agency.

As you will see from the archival research reported in my analysis in Chapter 3, one expects from this literature that the task environments of the DHS agencies examined differ, and that they will experience varying levels of environmental conflict and instability. This, in turn, could lead to varying levels of turnover intent. Thus, if one finds statistically significant differences across the four agencies in turnover intent after controlling for the traditional internal

organizational variables, one might attribute these to differences in the conflict or stress levels of employees occasioned by these different task environments.

Still, finding these statistical differences if they exist does not confirm that the environmental turbulence or instability predicted by the organization theory and policy literature actually exists in the four agencies. Nor does it necessarily follow that statistically significant differences are solely attributable to external political variables. I may merely have underspecified my model (i.e., not included other important internal variables) or the variables operationalized do not fully capture the concept I think I'm measuring. Thus, I return to the measures of turbulence and instability noted above from my archival research to establish the extent of stability or instability each of the four agencies have actually experienced (for example, changes in budgets, FTEs, etc.).

To summarize, then, to the extent that turnover rates do vary across agencies in statistically significant ways even after accounting for the effects of the internal organizational variables in the model, I have sufficient reason to believe that agency environment has some effect on turnover intent. It might be direct ("I'm sick of attacks on government") or indirect (through impacting management operations or agency climate). But differences alone do not mean they are attributable to external political factors, for the reasons just noted. One could accept more confidently the hypothesis that unexplained variance is attributable solely to external rather than internal organizational factors that I could not measure if the indicators (e.g., budgets, news stories, etc.) of unstable political environments in the agency case studies varied across agency types in expected ways. But even if *all agencies* exhibit instability or random patterns over time in these measures, this would not reduce confidence that it could lead to employee stress, dissatisfaction, and turnover intent. Instead, it means that the precise causal

mechanisms—direct and indirect—need better specification and should be the subject of future research.

While the archival and quantitative components of my research merge together to describe on a broad scale internal and external factors that influence careerist job changes, support for their validity would also be gained if the comments of interviewees support the findings. Thus, I use my focus group and semi-structured interviews to gain information on how careerists perceive their environment and why they believe that people change jobs --both by leaving the federal government and moving within government. The interviews include a focus group interview from the Key Executive MPA Program at American University, as well as individual interviews with employees from across the federal government and within the agencies in this case study.

The focus group interview was conducted in September of 2013 with 18 members of American University's Key Executive Program. The program is designed for high-level careerists who want to move ahead and become members of the Senior Executive Service (SES). As such, they have committed themselves to federal careers and are unlikely to want to leave government. They have also generally been with the federal government for many years. Participants came from across the federal government and approximately half of them had worked in multiple agencies. They represented a wide variety of professional and educational backgrounds including people who worked in budget offices, information technology, scientific areas, public affairs, and public outreach and collaboration. Some had worked in the private sector before changing to public service, a few had experience working for members of Congress, and others spent their entire careers with the federal government. The group was demographically mixed with men and women, and racial and cultural diversity. The one

demographic variable that was less mixed was age. Almost all of the participants appeared to be in their forties and fifties. The interview took an hour and a half, 17 out of 18 of the interviewees contributed to the discussion, and the remaining interviewee listened but did not offer any comments.

In addition to the focus group interview, I conducted individual interviews with careerists at the four agencies in the study, from other federal agencies, and with a lobbyist with extensive experience with careerists to gain an outside perspective. I identified interviewees using a snowball approach where I networked to find people to interview and then asked interviewees to identify others that may participate. Because they were talking about their jobs and concerned about confidentiality, many people chose not to identify other people to interview. The interviews were conducted both in person and over the phone. None of the interviews were conducted at anyone's place of employment. Face-to-face interviewees chose locations and often chose coffee shops or their homes.

Overall, I talked to two people at CDC, two people at CMS, four people at FDA, and four people at NIH. Outside of HHS, I interviewed two other careerists. One works for a scientific agency, and the other for an agency that is cited by Lewis (2008) as one of the most politicized agencies in the federal government. To gain a congressional, appointee, and lobbyist perspective, I also interviewed three people with this political experience. One is a former congressional staffer who served on the Obama transition team and now works as a lobbyist. The next currently works for the Senate and has also worked in a federal agency. The third has experience as an appointee, Senate staffer, and is currently a lobbyist. Two affiliated themselves with the Democrats and one with Republicans. In total, I interviewed 35 people.

All of the interviews were recorded then transcribed without any names attached to the transcriptions. Audio recordings were destroyed after the transcription was completed. Questions for all of the interviews focused on perceptions of working for the federal government. Each interview was a semi-structured format where I had a series of topics to ask about, but also pursued additional topics when they arose. About two-thirds of the interviewees spoke to the questions in terms of their specific experience and their agencies, while the other third kept their responses in terms of the federal government as a whole.

The interviews all began by asking why interviewees thought that people initially signed up for federal service, then asked if the reasons that people stayed in the federal government were different than the reasons that they initially joined. I next moved to people's perceptions of relationship between agencies and political entities including Congress, the White House and OMB, appointees, interest groups, and the media and general public. I also asked about their thoughts on internal factors related to job satisfaction and turnover such as pay, supervisor satisfaction, and intrinsic motivation that mirrored the variables used in my quantitative analysis.

What Follows

In the remainder of this dissertation, I first review in chapter 2 the literature drawn from organization theory and behavior, congressional oversight and interest groups, the administrative presidency, and the political appointee-careerist literature that discusses factors influencing careerist job choices, and agency interactions with political institutions. In chapter 3, I use archival research to review the history and nature of the CDC, CMS, FDA, and NIH today. With this as research and substantive context, Chapter 4 offers a theoretical framework for analysis, derives and elaborates the logic of the hypotheses tested, discusses the FedView data set, and explains the quantitative methods used in the analysis. Chapter 5 then presents findings from my

quantitative research paired with information from interviews to give greater understanding and nuance to findings. Finally, the last chapter reviews implications of my findings for practice and future research.

CHAPTER 2

TURNOVER INTENT IN ANALYTIC PERSPECTIVE: TOWARD A SYNTHESIS OF RESEARCH TRADITIONS

As noted in Chapter 1, this dissertation merges multiple streams of literature to extend our understanding of federal careerists' employment decisions. It is also premised on the idea that turnover intent is a function not only of internal management factors identified in prior research, but also on external political factors that have not been incorporated in that literature. As stated earlier, those external factors are posited to directly affect employee attitudes, and thus, turnover intent, and to also indirectly affect those attitudes via their impact on internal management factors.

Fortunately, there is a robust literature on employee turnover intent. Moreover, there is an equally robust literature on how external environments directly and indirectly affect agency management and behaviors. Finally, a significant body of research exists on how presidents and their appointees, as well as the Congress and its committee and subcommittees and interest groups try to politicize agencies in order to pursue what are often competing policy agendas. What is missing so far in the literature on employee turnover intent is an integrating framework that incorporates all of these potentially influential factors in those decisions and identifies the causal mechanisms involved.

Before offering the specifics of such an integrated framework in Chapter 4, hypotheses derived from it, and how my study will test many of those propositions, we need to familiarize ourselves with literatures from these disparate research traditions. Provided in the process will be a more dynamic and contextualized picture of the federal workplace and turnover intent than is given in prior research. In this chapter, I review and integrate this literature. I start inside the organization with traditional approaches to employment decisions, including turnover intent, job

satisfaction, actual turnover, and motivational factors. Next, I bridge these internal organizational theories to the broader external environment of federal agencies by reviewing the open systems literature. I conclude with an examination of the broader environment of federal agencies by exploring the literature on bureaucratic relationships with the Congress, interest groups, the White House, and political appointees. This chapter explores these literatures in theoretical terms so that they can then be applied more specifically to the four DHHS agencies in this case study in chapter 3.

Inside the Organization: Turnover, Turnover Intent,

Job Satisfaction, and Motivational Factors

Importance of Examining Turnover

As alluded to in Chapter 1, in both the private and public sectors, turnover is recognized as an important expense for organizations to bear. Abbasi and Hollman (2000) declare that, “...labor turnover is one of the most significant causes of declining productivity and sagging morale in both the public and private sectors” There are many costs of turnover including “brain drain” where turnover negatively affects innovation, impact work quality, and causes delays. The best and brightest employees are often the most mobile and are more likely to leave than others (Abbasi & Hollman, 2000). Visible costs of turnover can be extremely high. One study by Louis Harris and Associates marks the price of losing a worker at \$50,000. Other studies find similarly high costs to turnover. In the private sector, replacement costs can range from 50 to 200 percent of the employee’s annual salary (Partnership for Public Service & Booz Allen Hamilton, 2010), and Cascio (2006) found that the organizational cost of turnover is more than one and a half times the employee’s annual salary.

In addition to monetary costs, there are also significant “hidden” costs of turnover, including disruptions in relationships and workflow, and low morale among those who remain (Abbasi & Hollman, 2000; Yang and Kassekert, 2009). Institutional knowledge is also at risk. Retaining the best employees maintains institutional memory, which helps to reach organizational goals (Moynihan and Pandey, 2008). The GAO suggests that as Baby Boomers retire, performance could suffer because there are insufficient middle-level careerists to pass along institutional knowledge to new hires (U.S. Government Accountability Office, 2009).

In addition to the cost of actual turnover, there are costs associated with low levels of job satisfaction that are often expressed in turnover intent. Where people are less satisfied with their jobs or upset by a colleague’s decision to leave, employees often disengage or under perform. Studies find that employee disengagements cost organizations an estimated 35% of their payroll costing the entire United States economy \$370 billion annually (Krueger & Killham, 2006).

The study of job satisfaction, turnover intent, and turnover is also important because there is evidence that managers and organizations can improve job satisfaction and reduce turnover. The roots of this are in Blau’s 1964 social exchange theory. Blau asserts that people respond positively to others who provide benefits to them, creating a reciprocal relationship between employers and employees (Eder, 2008; Settoon et al., 1996). Others find that the converse is also true: where employees are treated badly, they react negatively (Chiu et al., 2005; Maertz et al., 2007). Turnover-reduction programs may help organizations retain their most valued employees and given the high cost of turnover, a well-executed plan can be well worth the investment (Abbasi and Hollman, 2000).

Moynihan and Pandey (2007b) explore how organizational factors that managers can influence vary based on individual perceptions and interactions with their environment.

Managers have the greatest influence over job satisfaction and the least influence over job involvement (Moynihan and Pandey, 2007a). Perryer et al. study employees in the Australian Federal Government and conclude that managers need to recognize that making employees feel supported can impact turnover intent (2010). Rivera and Flinck conducted a case study of HHS's Substance Abuse and Mental Health Services Administration (SAMHSA) where the agency initiated an employee led program in 2008 to improve employee engagement after they identified extremely low morale and a passive approach to work. In two years, the agency improved overall job satisfaction from 55% to 68% and satisfaction with SAMHSA went from 39% to 60% (Rivera and Flinck, 2011). However, one must be cautious about the merits of such programs, as the results are not always consistent with the intent. Choi found that effective diversity management improved job satisfaction but did not impact turnover intent in diverse agencies. Still, ineffective diversity management programs decreased turnover intent, contrary to expectations (Choi, 2009).

Turnover Intent

The study of turnover intent is important, as it is a critical step in the exit process. While not all those who express intent to leave actually leave, a portion of them will convert intent into exit. In fact, some claim that expressing intent to leave is the strongest predictor of actual turnover (Mor Barak, Nissly, & Levin 2001). Dalton and his colleagues (1999) cite multiple meta-analyses where the correlation between turnover intent and actual turnover ranges from .30 to .36 and similarly Podsakoff, LePine, and LePine (2007) find weaker but still statistically significant correlation of .24. The correlation between turnover intent and actually leaving may vary based on different demographic factors as well. Cho and Lewis (2012) assess how well turnover intent predicts actual turnover. They find that the probability of leaving federal service

drops with age and experience. They also find that people who are highly compensated for their education and experience are less likely to leave. Turnover is higher among more educated employees, and doesn't vary much across gender and race. (Cho and Lewis, 2012)

However, one must view turnover intent as a step in the turnover process where varying elements impact job satisfaction, which then correlates with turnover intent, and finally with actual turnover (see Podsakoff, LePine, & LePine, 2007 for an example). In general, models of turnover find that there is a strong correlation between job satisfaction and turnover intent, as well as a correlation between turnover intent and actual turnover (see Jackson & Schuler, 1985; Netemeyer, Burton, & Johnston, 1995; Podsakoff, LePine, & LePine 2007). This leads researchers to present turnover as a process where dissatisfaction translates to intent and then turnover. Still, Dalton, Johnson, and Daily (1999) again caution against making the jump that turnover intent can be used as a surrogate variable for actual turnover as the correlation between turnover intent and actual turnover is often unknown.

Job Satisfaction

There is a body of literature that looks specifically at public sector employee turnover/turnover intent and a closely related aspect of behavior, job satisfaction. In 1976, Locke defined job satisfaction as, a "pleasurable or positive emotional state resulting from the appraisal of one's job or job experience" (p.1300). Studies exploring the link between job satisfaction and performance and productivity find mixed results, but the link between job satisfaction and turnover, and other behaviors such as absenteeism is better established (Harrison et al. 2006). Mobley and colleagues (1979) suggest that while overall job satisfaction is an important variable, it only explained 16 percent of variance in turnover and that other factors need examination as well. They recommend considering factors like tenure, primacy of work,

attraction and expected utility of one's job as well as alternatives, profession, pay and promotion, satisfaction with supervision, group relations, and the availability of other jobs.

In looking at the public sector, Ting identifies job characteristics, organizational characteristics, and individual characteristics as determinants of federal employee job satisfaction (1997). Private sector research identifies the same three categories as relevant. Ting believes that viewing all three of these determinants as part of the same model gives a more complete view of employee satisfaction than looking at them in isolation. Findings indicate that both job function and organizational characteristics, including organizational commitment and relationships with coworkers, relate to employee job satisfaction (Ting 1997).

Higher individual commitment to the organization is correlated with higher levels of job satisfaction in multiple studies (Romzek 1990, Ting 1997). Allen and Meyer (1990) define employee commitment as the "sense of loyalty and obligation the employee holds toward the organization". Strong organizational commitment is also defined as the level that one identifies with, and is involved in an organization (Mowday et al., 1979; Meyer et al., 2002; Perryer et al., 2010). Organizational commitment is thought to drive people toward collective goals vs. individual goals (Ellemers, de Gilder, and Van den Heuvel, 1998). Also, one's job involvement can be an indication of how much of one's self image is defined by their workplace experience (Lodahl and Kejner, 1965). Organizational commitment should also be considered both an antecedent and an outcome (Meyer and Allen, 1997; Meyer et al., 2002). Committed people are less likely to leave an organization and more likely to exceed employer expectations. (Meyer et al. 1993 and 2002). Employee commitment is also the result of positive employee experiences and relationships with management (Meyer et al., 2002). Perryer et al. (2010) explore the relationship between organizational commitment, perceived organizational support, and turnover

intent. They found that there is an interaction between organizational commitment and perceived organizational support that predicts turnover intention. When employees have low levels of commitment, but high levels of perceived support, they are less likely to want to change jobs. This indicates that good management practices can impact turnover intent.

One question that arises is whether employees who consider themselves advocates for an issue or group view their role differently than employees who are committed to the organization but not to a specific advocacy agenda. These differences may become more significant when the political leadership of the organization changes. Along similar lines, Romzek recommends the following for organizational socialization: “Socialization processes must effectively communicate and inculcate pivotal agency values to employees (1990)” Effectively indoctrinating employees into agency culture appears to produce benefits for both the employee and employer.

Agency culture is often closely tied to agency mission. In their study of effective organizations, Rainey and Steinbauer (1999) found that an attractive mission and supportive culture were important. Linking an individual’s role to overall organizational purpose and contribution to adding public value is an important motivation tool (Moynihan and Pandey 2007, Pandey and Garnett 2006). However, Moynihan and Pandey (2007) caution that strong group cultures that often result from a strong sense of organizational mission can lead to Janis’ concept of groupthink (1982) where high conformity to group norms discourages dissent, leaving an organization vulnerable to making poorly thought-through decisions. This idea of connecting to mission and a strong group culture may be measured as “team orientation” in the terms of O’Reilly, Chatman, and Caldwell (1991). They identify seven dimensions of organizational culture including innovation, stability, respect for people, outcome orientation, attention to detail,

team orientation, and aggressiveness. Of note, Yang and Kassekert (2009) linked one of these elements, innovation, to higher job satisfaction.

So, too, did Ting, Wright and Davis find that certain job and organizational characteristics are correlated with job satisfaction (2003). Their model creates paths where procedural constraints, organizational goal conflict, organizational goal clarity, salary grade, and feedback affect day-to-day predictability, clarity of duties, and human resource development. Included among these is perception of career growth potential and training opportunities; both are correlated with job satisfaction. Day-to-day job predictability (routineness), clarity of duties (job specificity), and human resource development were all statistically significant variables. Higher levels of job goal specificity and human resource development both positively correlated with higher job satisfaction. Increased routineness correlated with lower job satisfaction (Wright and Davis, 2003).

Pay Satisfaction

Research also examines the relationship between pay and public sector turnover/turnover intent. Lewis (1991) used data from 1973 through 1989 to look at this relationship. His analysis indicated that there was a growing gap between public and private sector pay but that turnover rates had remained stable (Lewis 1991). Also regarding pay, Bertelli (2007) found that increased pay correlated with decreased turnover intent in non-supervisory positions. However the same relationship was not statistically significant for managers. Given these findings, there does not appear to be a strong link between pay and turnover intent. However, Abbasi and Hollman (2000) point out that, “Employers should recognize that a person’s earnings subliminally serve as an indicator of power and prestige and are tied to feelings of self-worth” (p. 338). Pay and pay increases take on symbolic importance indicating how the organization values employee efforts.

Whitford and Lee (2011) find that federal workers who are more satisfied with their pay are less likely to want to leave their jobs. There was one notable exception, however. People who intend to retire appear to be more satisfied with their pay. While pay satisfaction was statistically significant, having a voice in the organization and loyalty to the organization showed greater substantive impact.

Pitts, Marvel, and Fernandez (2011) found that increased pay satisfaction decreased intent to exit among those who wanted a new federal job or to leave the federal government. However, the impact of improved pay satisfaction was minimal; a one-point increase in satisfaction on a 1 to 5 scale yielded a less than 1 percentage point change in predicted probability of turnover intent. Pitts and his colleagues note that some of the impact of pay satisfaction may be captured in measures of overall job satisfaction, thereby reducing the distinct impact of pay satisfaction. In contrast, Langbein (2009) finds that pay satisfaction and job satisfaction are only weakly correlated.

Another element that is often considered in one's decision to look for a new job is the potential for career advancement or professional growth. Like pay, this should be considered on both a literal level where one seeks more out of their pay/career and on a symbolic level where lack of growth potential indicates that an organization does not support an individual. Personal recognition through job growth is critical to retention. According to Sigel (1999), lack of recognition is the primary reason people change jobs.

The importance of pay satisfaction and potential for advancement in the expression of turnover intent is unclear. The literature is mixed as to whether increased pay satisfaction is associated with a substantive decrease in the probability of expressing turnover intent. As this study focuses on upper-level employees who are better compensated than their lower-level peers,

finding pay satisfaction to be an important variable is less likely than in a study that includes all GS levels.

Group, Organization, and Environment Fit

Frameworks focusing on relationships or “fit” recognize that interactions impact individual motivation and decisions. Discord based on one’s relationships with the environment/organization, work group, or supervisor is thought to create stress that impacts the individual’s personal wellbeing and may in turn impact employment behaviors and decisions. Person-environment fit (credited to French & Kahn, 1962; French et al., 1974 by Edwards, Caplan, & Harrison, 1998) requires making distinctions between objective and subjective realities for both the individual and the environment (Edwards, Caplan, & Harrison, 1998). Person-environment fit theories then break into two types of person-environment fit; the first is the match of job demands to one’s abilities, and the second is the match between one’s personal needs and the job’s ability to fulfill those needs (French & Kahn, 1962; Harrison, 1985; Edwards, Caplan, & Harrison, 1998). For the purposes of this study, questions in the FedView Survey allow us to evaluate levels of satisfaction with supervisors, teams, and the organization, but not with the broader environment.

Mobley, et al. found in their early review of literature that there was little empirical support for group-fit as a contributing factor to turnover (1979). In spite of the lack of early findings supporting the importance of groups in the turnover literature, the study of group fit continues. Kristof (1996) discusses the importance of person-organization fit recognizing other forms of person-environment fit including person-vocation fit, person-job fit, person-group fit. She finds support in the literature for reduced turnover intent when person-group fit is higher. A

key in this piece is the recognition that the values and norms of the group may differ from the organization at large.

She also points out that the importance of the group may supersede the importance of the organization; loyalties may be to a work group rather than an organization. While not tested specifically in this paper, it is possible that in a large bureaucratic organization, people are more likely to identify with their group rather than the organization. Kristof also distinguishes between types of fit: supplementary fit where one has similar characteristics to the group or organization and complementary fit where one adds different characteristics to the group. In this context, she suggests that if the goal is to reduce turnover, employers should emphasize supplementary fit. In contrast, if one seeks adaptation and change, increased complementary fit is necessary (1996). Kristof-Brown, Zimmerman, and Johnson studied the impact of fit in their 2005 meta-analysis, finding that person-group fit weakly correlated with reduced intent to quit.

Positive relationships with coworkers are also correlated with increased job satisfaction (Bertelli 2007, Ting 1997). Bertelli (2007) posits that both friendships and perceptions of group productivity are linked to the probability of expressing turnover intent. His study of U.S. Department of Treasury employees found that improved satisfaction with friendships correlates with reduced turnover intentions, but that perceptions of group productivity did not have a significant effect. The impact of friendship was only statistically significant among non-supervisory employees (2007). Friendships and identification with coworkers creates connection with a group, which may be more or less important at different career levels. This is an important consideration for my study as it focuses on upper-level career civil servants. Pitts, Marvel, and Fernandez (2011) examined the role of coworker relationships as well. They found

that in the federal government, group relationships were not a significant indicator of turnover intention.

While the theoretic foundation for group fit as a determinant of turnover intent is plausible, the empirical results do not provide much support. Intuitively, one recognizes that relationships with coworkers can affect one's satisfaction with their job and thus their interest in staying or leaving. Clearly, this is an area where more examination is warranted.

Early studies of the connection between satisfaction with supervisor and turnover found little evidence of a relationship (Mobley et al. 1979). Graen, Liden, and Hoel pursued the question by testing perceptions of leader behaviors rather than general satisfaction with supervisors. They found that perceptions of leader behaviors were better indicators of turnover than general satisfaction measures. They specifically state, "Members tend to remain in the organization when they see themselves actively exchanging support, resources, extra effort, and the like with their leaders" (Graen, Liden, and Hoel 1982)

Kristof-Brown, Zimmerman, and Johnson found in their meta-analysis that person-supervisor fit had a stronger relationship with job satisfaction than organizational commitment. This finding suggests that the immediate relationship with one's supervisor has more of an impact on an individual than the organization at large (2005). Similarly, Pitts, Marvel, and Fernandez observe that the relationship with one's supervisor has a greater impact on turnover intent than the relationship with one's peers or group. They propose two possible explanations: first, the hierarchical structure of government agencies promotes the supervisor's authority and minimizes collaborative team efforts, and second, measurement error generated by the difficulty in gauging group relationships (2011).

Managerial status in and of itself may also be a factor that contributes to people wanting to change jobs. The role of managerial status has elicited mixed findings with job satisfaction. Both Yang and Kassekert (2009) and deLeon and Taher (1996) found that managers reported higher levels of job satisfaction, Kim (2002) did not see any significant effect, and Rubin (2009) found that managers were less satisfied with their jobs. Adding another layer to questions about managerial status, Abbasi and Hollman (2000) found that all managers do not respond in the same ways. They found that manager professional backgrounds influenced their ability to integrate an organization that includes different functions. For example, a manager with a finance background may view an organization as a series of assets rather than recognizing the importance of the personal and social needs of employees.

Intrinsic Motivators

The role of intrinsic motivation among government employees is a major stream of research today in public administration. Intrinsic motivation can be defined as the desire to expend effort based on interest in and enjoyment of the work itself (Grant 2008). People with certain characteristics may self-select into specific positions. One such characteristic is public service motivation—which has potential implications for turnover and job satisfaction as well. For example, some individuals choose public service because of a personal motivation to serve the greater community, so their turnover intention may not be as easily influenced by organization-level extrinsic factors like salary or benefits. In addition to traditional market incentives like pay, benefits, and potential career advancement, public sector employees are often driven by a commitment to public service values (Perry & Wise 1990). In addition to public service values, if one is less extrinsically motivated, there are other personal rewards that may be important factors in turnover intent decisions.

Bertelli (2007) identifies a series of statements used in the Federal Human Capital Survey (now FedView Survey) that capture agreement or disagreement with statements that reflect intrinsic motivators related to one's sense of self. These include "My talents are well used in the workplace", "The work I do is important", and "My work gives me a feeling of personal accomplishment". Bertelli uses these and other questions to create what he calls a JIM index (job improvement and intrinsic motivation). He finds that higher "JIM" scores are correlated with lower probabilities of turnover intent among both supervisors and non-supervisors. Similarly, Romzek (1990) found that if employees feel that their work is valuable and serving the public, they will be more committed to their work.

Cho and Perry (2011) examine the relationship between intrinsic motivators and intent to leave both directly and with intervening variables such as managerial trustworthiness, goal directedness, and extrinsic reward expectancy. They measure satisfaction with intrinsic motivators through agreement or disagreement with the following statements: "My work gives me a feeling of personal accomplishment", "I like the work I do", and "The work I do is important". They find that higher intrinsic motivation correlates with lower likelihood of expressing turnover intent. Cho and Perry suggest that organizations should "cultivate intrinsic motivation" to improve satisfaction and decrease turnover.

Bridge to the Broader Environment: Open Systems Literature

A key element of my study is the link between motivation theories and open systems theory. While the motivation literature focuses on what happens within the organization, the systems literature considers the relationship between the organization and its environment. The open systems approach was first presented in biology by Von Bertalanffy (1950) and extended to organizations in the 1960s (Scott, 1961; Burns & Stalker, 1961; Katz & Kahn, 1966). It

conceptualizes organizations as nested in a broader open system where there is an endogenous relationship between an organization and its environment. Katz & Kahn (1966) give five characteristics for such a system: negative entropy (the constant struggle against chaos), feedback, homeostasis (a relatively steady state of being), differentiation among organizations, and equifinality (the possibility of arriving at the same conclusion through different paths).

While Katz & Kahn (1966) give us characteristics of open systems, not all systems are the same. The stability or lack of stability of the system impacts organizational form and structure (Burns & Stalker, 1961; Hannan & Freeman, 1977). Burns and Stalker (1961) viewed systems on a continuum ranging from mechanistic to organic systems where the stability of the system dictates where it places on the continuum. Stable conditions call for a mechanistic organizational form emphasizing traditional hierarchy and reliance on formal rules and regulations. On the other hand, dynamic conditions call for organic systems with less rigidity and more employee participation. In this way the broader environment impacts the organizational structure and therefore, individual employees. Hannan and Freeman (1977) propose that organizations respond to the stability of their environment by either specializing or generalizing. Where environments are unstable, organizations attempt to cope with instability by taking a more generalized approach, leaving them without the expertise that specialization develops.

If the political environment that DHHS agencies function within varies from one agency to another, it is possible that the environment requires agencies to adjust their working styles/structures and thus influences individuals. This, in turn, may explain differences in turnover intent rates. Weick (1979) extends the discussion of the circular feedback loop where organizations influence individuals and are also influenced by individuals. Structures are a

product of the previous experiences of individuals within the organization. These structures then impact how individuals think about organizations.

Wilson (1989) offers perhaps one of the most widely recognized applications of systems theory to the study of public agency behavior. Wilson proposed a typology where an agency's ability to measure and report outcomes and outputs to Congress, the White House, and other interested actors, alters agency relationships with the political environment. Beyond simply stating that an agency's ability to define outputs and outcomes determine agency relationships, Wilson goes on to argue that more controversial or uncertain the causal theory informing an agency's mission or task, the more external political scrutiny it is likely to get from a variety of actors. Agencies with controversial tasks are also more likely to have politically turbulent or complex environments rather than placid and simple environments, thus making for less standardization, routinization, and stability of work environments. As a result, agency management is conditioned on responsiveness to environmental demands, thereby pushing agencies to adjust their internal management approaches. Wilson asserts that each agency typology will drive managers to use different sets of incentives, which potentially can affect employee turnover decisions.

Production agencies have highly measurable outputs and outcomes. This facilitates an emphasis on efficiency: exploring whether results are achieved with the minimum necessary resources. Measures of efficiency are applied on both the programmatic level and to individual assessments of performance. The conflict in production organizations lies in whether the agency is given the proper resources, or more cynically, if external political actors intentionally withhold resources to prevent the agency from becoming too effective (Wilson 1989, p. 174). Mostly, however, routinization makes for less politicized work environments (e.g., fewer political

appointees, less congressional oversight, lower permeability of agency operations by outside actors, and thus more deference to employee expertise.

Procedural agencies can easily measure outputs but are challenged to measure outcomes. Because all that can be measured is outputs, managers tend to supervise specific tasks closely to maximize outputs. These agencies become dominated by standard operating procedures and close monitoring of employees. Wilson asserts that this relentless surveillance takes its toll on staff morale (Wilson 1989, p. 174). This surveillance can be both internal (in the form of political appointees closely controlling decision rules, structures, budgets, and promotions) and/or external (in the form of heightened congressional scrutiny or external actor influence). Moreover, these can be especially disruptive if the outcomes are controversial (e.g., quality education).

Craft organizations face the opposite set of circumstances: outputs are difficult to measure, but outcomes are highly visible. Because it is difficult to routinely measure staff outputs, and managers have little ability to recognize a problem early in an effort, managers must rely on professionalism. Wilson finds that craft agency success depends upon professional norms, a strong sense of agency mission, and a commitment to craftsmanship to prevent staff abuses of power or poor uses of discretion (Wilson 1989, p.175). As such, external political actors tend to focus less on overseeing internal agency operations than upon outcomes, making their deference to professional norms disrupted infrequently. Only a focusing event like dramatic increases in ecosystem damage from timber harvesting brings enhanced scrutiny to professional norms, and with it more efforts to change professionals in the agency and monitor their operations. These agency types generally, however, are left alone from political interference because of deference to the expertise of these professionals; as Lewis (2008) notes,

they experience less politicization because elected officials want to ensure the health and safety of constituents. In these instances, interference is too risky a strategy for politicians to take.

Finally, coping agencies face the double obstacle of difficult to measure outputs and outcomes. In this situation, managers have little information to work with in evaluating and supporting their staff. The tendency becomes to give feedback to staff when outside alarms are set off. So when a citizen, congressman, or interest group complains, staff are promptly punished in order to send a strong message. However, the fire alarm may be a false one or an outlier rather than a consistent behavior. Eventually, staff feel unsupported and mistreated by management (Wilson 1989, p.175).

Alternatively, their lower morale stems from the high levels of attention by interest groups, elected officials, and citizens. As Wilson notes, these types of agencies are (in Heclo's terms) the epitome of issue networks, with opposing interests lined up on all sides of issues. As such, they are buffeted by competing forces, and subject to swings in program emphasis (and pitched battles over priorities). Consequently, they are highly susceptible to electoral outcomes, with the appointees of one party taking them in one direction, while appointees from the other party pull them in another. Not only can this result in budget swings, policy priorities, shifting reporting and organizational structures, and conflicts between appointees and careerists, but it also can set the conditions for micromanagement by those appointees. And all of these factors can produce the kind of turbulence, disaffection, and morale-sapping conflict that could lead to turnover.

The typology presents an interesting tool for interpreting agency life. However, as the following review of the literature illustrates, it must be considered a simplification of agency reality. Agencies perform multiple tasks, making neat packaging of agencies into Wilson's

categories in practice very difficult. Moreover, they may be affected by the efforts of multiple principals. And the interaction of these various actors defies a simple two-by-two categorization of agencies. Still, it's emphasis on turbulence and instability is a useful heuristic device when differentiating between agencies and programs.

Unpacking Agency Relationships within the Broader Political Environment

As agencies are the product of the political world and have ongoing political relationships, these relationships warrant further investigation. This section reviews the literature on the political nature of agencies and agency relationships with Congress and interest groups, the White House, and appointees. To understand how the environment impacts agencies, it is important to assess their interactions with the political world. While much of this literature focuses on tools used by each set of actors to move the policy agenda or prevent bureaucratic discretion from straying, it gives insight to how agencies are treated and how they tend to respond. Embedded in techniques for control are clear messages to bureaucrats about how their work is perceived and valued. There is also literature that discusses how bureaucracies function as their own political entities. Managing political relationships either directly or indirectly alters the daily work environment for staff and may, in turn, influence turnover intent.

Agencies as Political Entities

Moe states, "American public bureaucracy is not designed to be effective. The bureaucracy rises out of politics, and its design reflects the interests, strategies, and compromises of those who exercise political power" (1989, p. 267). This concept of bureaucracies as fundamentally political can be traced to the founding debates. By not mentioning the bureaucracy in the US constitution, nor of course anticipating the scope of today's administrative state, the Madisonian system they designed of separated powers, checks and balances, and

federalism guaranteed that federal agencies would reflect the political world with all of its partisan disagreements and varied interests (Lewis, 2003). They are, essentially, a battleground for control between the president and Congress, with the courts the ultimate arbiter if brought into the fight (Durant 1992). Therefore, we must consider agencies as political entities beginning with agency conception, and continuing over the years as they evolve.

The nature of our separation of powers system is evident in agency design, as the conflict between Congress and the president shows up in the battle over structures. Lewis (2003) discusses how the structural choices made while establishing an agency dictate who has control of the agency – the White House or Congress – and how much control they have. In his words, and building on the classic work of Harold Seidman (1970), “Agency design is fundamentally and inescapably political” (Lewis, 2003), and has substantive impacts on policy (Canes & Wrone, 2009; Lewis, 2003). The key to understanding the pathologies of the administrative state is to understand the politics of its creation. Lewis proposes that when agencies are born as a response to a political concern, they are more likely to house conflicting goals. For example, the Department of Agriculture both promotes farming and regulates farming activities (2003).

Presidents view agency design in terms of how to increase executive control, while members of Congress are looking to respond to the short-term desires of their constituents (Lewis, 2003). All politicians wish to see their policy goals and accomplishments survive political fluctuations. When designing agencies, Congress often seeks to insulate them from political shifts by creating administrative procedures, statutory approaches including extended reauthorization bills and mandatory spending accounts, and structural devices such as creating a commission with limited numbers of political appointees (Lewis, 2003). Presidents seek control by placing agencies within the traditional executive-branch department structure, thereby

allowing for political appointments and information to move through a clear hierarchy (Lewis, 2003). Presidents oppose congressional efforts to insulate agencies from presidential influence (Lewis, 2003).

In considering agency design, politicians thus consider how to minimize the damage that an agency can do in implementing statutes from their original goals when it falls into the hands of the opposite party (Lewis, 2003). Some refer to this as “bureaucratic drift” and “congressional drift”. When congressional and presidential policy preferences match, agencies are designed to allow greater amounts of executive influence. Similarly, when Congress is substantially divided and cannot muster cohesive opposition to the president, resulting agencies have strong executive influence (Lewis, 2003).

To bypass Congress, presidents often create agencies through executive actions including executive orders, departmental orders, and reorganization plans, once again creating agencies with little insulation from the executive branch and politics (Lewis, 2003). This political openness may not bode well for an agency in the long run. Agencies that are insulated from political influence are more likely to last than those with more politically volatile environments (Lewis, 2003).

The White House and the Administrative Presidency

The application of executive tools to direct the bureaucracy was labeled the “administrative presidency” by Richard Nathan in 1983 (Durant 1992 and 2009, Rockman 2009), where presidents use their administrative powers over the bureaucracy as a key tool in trying to influence how agencies exercise their discretion. Given that the bureaucracy has multiple masters and that the president’s primary ability to impact the implementation of policy is through the bureaucracy, presidents try to exert as much control as possible over it (Aberbach &

Rockman 2009, Lewis 2003, Lewis 2008). In addition to policy purposes, presidents seek to control the bureaucracy because they are held accountable for agency actions (Lewis, 2003). In the face of our separation of powers system where agencies must respond to Congress and the Courts as well as the president, presidents struggle to learn to effectively utilize careerists to achieve administrative and policy goals.

Scholars explore the relationship among agency careerists, appointees, and the White House in multiple ways. The key point in the study of the administrative presidency is that because passing legislation is so difficult, presidents use administrative tools to influence change. In this process, presidents and appointees also confront concerns that career bureaucrats will either actively oppose or be indifferent to the presidential agenda (Durant and Resh 2011). There are two sets of tools that presidents use to influence change within the bureaucracy: “unilateral tools” including executive orders and signing statements; and “contextual tools” such as reorganization, appointments, and budgetary influence (Durant, 1998; Durant, 2009; Waterman, 2009; Durant and Resh, 2011). For these purposes, the literature on the administrative presidency is divided into the following categories 1) structurally by exploring technical methods of executive control, 2) literature that focuses specifically on appointees, 3) and appointee-careerist relations. Each perspective yields a unique body of thought about the impact of the political world on career staff, generating a complex picture of executive influence on the daily life of senior career staff that can be more or less conducive to employee turnover.

Presidential efforts seek to overcome the organizational and environmental complexities of the political world, recognizing that the success of presidential efforts is contingent on the wider political environment (Rudalevige 2009). Moreover, organizational complexities create a variety of problems including (1) vertical coordination between presidents and their

subordinates, (2) horizontal coordination, and (3) challenges arising from presidential and appointee short tenures. In addition, presidents face a challenge in that agency actions are already in motion when they take office, emphasizing continuity over change. Outside interests support the existing structure of an agency if it favors their access and influence and the status quo, creating another obstacle for appointees to act as change agents (Edwards 2001). These factors limit the president's ability to be effective (Krause 2009). However, the Reagan administration's success in controlling the bureaucracy shows that the White House can exert significant influence over the bureaucracy (Golden, 2000; Stehr 1997; but see Durant 1992).

Executives also try to control the bureaucracy through agency reorganization and centralization. The White House can "rearrange the furniture" into White House offices to control the bureaucracy and impact policy (Aberbach & Rockman 2009). Such centralization includes shifting agency functions and policy making to the White House where the White House acts as a "counter bureaucracy" to control agency behavior (Rudalevige 2009). This can be quite debilitating of morale in agencies as they have little input into policy formulation and are seen only as implementators of policies designed elsewhere.

A prime example of executive control created in the Reagan administration and continued today is to require a cost-benefit analysis for every regulation where expected costs are high. The White House uses these analyses to slow or stop undesirable regulations (Rudalevige 2009). Presidents also use the budget to control agencies. They work with Congress to enact spending limits, as well as to defer or rescind spending (Waterman 2009). The use of these tools can fundamentally change careerist roles and their ability to fulfill their responsibilities, ultimately influencing careerist perceptions of their jobs.

Politicization of Agencies

The political nature of an agency continues as time passes (Nathan, 1983; Waterman, 1989; Durant, 1992; Maranto, 1993; Lewis, 2008). Lewis in 2008 found that presidents have politicized agencies over time by increasing the ratio of appointees to careerists based on controlling the bureaucracy where agency work is more political and technical. Building on Heclo (1977) and Seidman's work (1970), Lewis (2008, p. 6) asserts that given the large amount of discretion delegated to administrative agencies and the expanded scope of government including highly technical issues, Congress and the President must rely heavily on careerists. Lewis (2008, p. 82) goes on to show that the level of politicization can vary greatly from one agency to another. For example at the high end, the staff at the Office of Management and Budget (OMB) is 7.21% appointees and the Department of Education is composed of 3.47% appointees. On the other end of the spectrum, in the Department of Defense, Social Security Administration, and Department of Veterans Affairs appointees hold fewer than 0.05 percent of the positions. The Department of Health and Human Services is made up of 0.21% appointees. He also finds that the ratio of appointees to careerists is not stable over time. When moving from 1960 to 2004, he finds that the greatest growth in the agencies he examined was a 4.7% increase in the proportion of appointees in the OMB and the greatest losses at the Export-Import Bank with a 3.15% decline (Lewis, 2008; p. 85).

The choice and placement of appointees is a critical method of executive control (Lewis 2003). Wood and Waterman (1994) discuss the signaling process where presidential appointees communicate administration preferences to the bureaucracy. When signals are clear, agencies adapt. However, it is often the case that signals are "confused, confusing, ambivalent, or even downright conflicting" (see Durant 2009 for an example) (Aberbach & Rockman 2009). Appointee positions are also placed deeper into the bureaucracy as a means to exert greater

control over career staff, thereby increasing the politicization of an agency (Lewis 2008). This politicization involves staffing the bureaucracy such that it will be responsive to the president (Rudalevige 2009) and at the end of a president's term, they then try to convert appointee positions into career positions to have a more lasting ideological impact on the bureaucracy (Edwards 2001). Presidents often choose to increase politicization of an agency when agency perspectives differ from presidential values (Lewis 2008).

While presidents politicize the bureaucracy for both patronage and policy purposes, Lewis asserts that this politicization can hurt agency performance (Lewis, 2008, p. 73; also see Light 1999, but see Durant, Maranto, and Durant and Warber for a different perspective and Durant 2011 for a critique of the PART score evidence Lewis marshals). Politicized agencies do not perform as well as their politically insulated peers. He calls this the “key irony of bureaucracy in a democratic government” where, “Some insulation from political control is necessary to make the bureaucracy effective – to help it cultivate experience, develop long-term perspective and planning effectiveness, and to provide the institutional memory that keeps the government running from election to election. What makes it effective makes it less subject to political control and less useful as a source of political power” (Lewis, 2008, p. 202).

Lewis (2008) points out that appointees often are poorly prepared for their jobs and stay for short tenures, making teamwork challenging. Appointees avoid long-term planning and career staff respond slowly after watching a series of appointees leave as quickly as they arrive. He identifies two types of effects of politicizing the bureaucracy: first by influencing the type of people selected for appointments, and second by creating “hidden effects” on morale, tenure, and incentives of career managers. Short-term political gain from politicization can lead to longer-term destructive consequences (Lewis 2008, Lewis 2009).

One can argue that presidential attention and politicization of agencies can contribute to or decrease turnover intent. It is possible that increased attention corresponds with increased workloads, stress, and instability within agencies increasing the likelihood that people will want to change jobs. However, it is also possible that presidential attention increases the mission saliency, thereby motivating people who support their agency's mission.

In many cases where the President's views differ from agency missions and goals, appointees are placed in their positions to undo agency actions instead of to promote the agency (Auer 2008). This can create great strains in careerist-bureaucratic relations as career staff have often self-selected into an agency because they support agency programs and policies (Edwards 2001). The result is that agencies that have controversial goals or policies are more likely to have appointees burrowed deeper into their organizations (Maranto & Hult 2004; Lewis 2008). The dominance of appointees in such agencies may create conflict with careerists as the latter have less discretion and may be asked to perform functions that differ from their personal preferences. Still, Lewis' work also suggests that presidents are less prone to put appointees with lower qualifications into science-based agencies.

Executives also seek to control agencies by altering the role of career staff through limitations on their influence both inside and outside of their agency. Presidents minimize career staff contact with Congress by making appointees the liaisons between the bureaucracy and Capitol Hill. Moreover, members of Congress give little stock to career civil servants who fill in when political appointee vacancies occur. Similarly, career staff are less likely than appointees to work directly with White House staff. This finding challenges old conceptualizations of bureaucrats as a part of "iron triangles" given that political appointees dominate relationships with Congress (Dolan 2000). Within agencies, executives weaken career staff by leaving career

SES positions unfilled and moving SES into unimportant positions or obscure agencies (Ingraham et al. 1995, Maranto 1993). By isolating and minimizing the role of careerists, careerists may decide that their skills are underutilized and wish to move to more rewarding positions.

The Appointee Perspective

To this point, I have reviewed literature that discusses appointees as a primary mode of influence for the White House in a complex system that provides a motivation for political control. This leads to a presidential desire for loyal appointees that then need to be controlled by a centralized White House (Aberbach & Rockman 2009, Lewis 2009). In addition to commitment to the president's agenda, appointees enter with their own personal motivations. If appointees are primarily interested in their personal short-term gain, and are only in positions for limited time, they may resist higher-level efforts to control their behaviors (Aberbach & Rockman 2009). Because of multiple motivations, appointees need to be monitored once in the agency to be sure that their allegiance remains with the president; the White House fears that appointees may "marry the natives" or replace administration positions with the views of the career bureaucracy (Aberbach & Rockman 2009).

One benefit of loyal appointees is that they may be more likely to stay in office longer (Cohen 1986). It is widely cited that appointees only stay in office for an average of about two years (Dull & Roberts 2009, Gill & Waterman 2004, Michaels 1995, & Auer 2008). This short tenure, gives rise to an assortment of nicknames for appointees including, "in-and-outers", "short-termers", and "birds of passage" (Auer 2008, Lewis 2009). Similarly, short appointee tenure led Heclo (1977) to refer to our system as a "government of strangers". Short tenure of appointees can have long-term consequences for agency performance and stability (Auer 2008,

Michaels 1995). For example, employee duration and continuity are important to agency success; duration is critical to leadership, and continuity to maintaining knowledge (Dull & Roberts 2009). And while the legitimacy of PART scores as a measure is questionable (see Radin 2006 and Durant 2011), Lewis (2008) found that programs run by careerists scored better than those run by Senate approved appointees. This finding lends credence to those who argue that longer tenure provides stability and institutional knowledge needed for institutional success, still noting that the same stability can limit agency ability to adapt to changing environments (Dull & Roberts 2009). If short appointee tenure is linked to limited institutional success, careerists may feel that their efforts are futile. In which case, careerists may seek more fulfilling positions elsewhere.

Short tenure also implies that there are periods of time where political positions are left vacant and that vacant positions impact agency performance (Dull & Roberts 2009). Gill and Waterman (2004) identified what they term the presidential appointment contradiction: appointees are supposed to effectively manage the bureaucracy to support presidential goals, but leave so quickly that they can't make a full impact. According to Lewis (2009), short appointee tenure disrupts policy implementation and executive monitoring, breaks up interagency teams, and leaves important programs without representation in the political and budget process. Short tenure of appointees impedes their ability to constructively plan and build team relationships within and outside of their immediate offices (Lewis, 2008, p. 4).

This is consistent with Derthick's (1990) finding that appointee turnover is a source of stress for staff in that appointees acted as a buffer between elected officials and the bureaucracy. Appointees need to learn to trust every time. If there is high turnover, there is little time for appointees to build relationships before leaving and placing the bureaucracy in the position of

never moving beyond questions of trust (Resh, 2011; Yang and Kassekert, 2009). In the process of building trust, given some time, appointees with extreme views of career staff softened their views (Pfiffner, 1996; Garrett et al. 2006).

In considering why appointees have such high turnover rates, one must recognize that appointments are associated with high levels of stress that can lead to lower levels of job satisfaction (Gill and Waterman 2004). Michaels (1995) identified eleven stressors faced by appointees: 1) lack of control, 2) lack of sense of accomplishment, 3) red tape, 4) inability to remove career staff, 5) constant criticism from the press and public, 6) not being able to manage independently, 7) financial limitations, 8) turf battles, 9) conflicting demands, 10) time pressures, and 11) personal and family stress.

When one views this series of stressors faced by appointees, one has to ask whether the list for appointees differs from those of upper-level career staff. The question for me in this study, however, is whether appointees act as a sufficient buffer between the political environment and upper-level bureaucrats to reduce the stresses inherent to high-level agency positions, or if those who are in higher career positions are more capable of coping with stress. Moreover, if appointees express stress, they may make life more stressful for their subordinates, thus increasing job dissatisfaction which can translate into turnover intent.

All of that being said, certain factors may contribute to appointees staying longer than the two-year average. Highly technical positions may encourage longer appointee tenure as knowledge and ability to impact grows over time, and the culture of an organization may encourage or discourage appointees to leave (Dull & Roberts 2009). They may also face less political pressure. Loyalty to the administration may also contribute to appointee tenure. Dull and Roberts observed that under Clinton and George W. Bush in DHHS and Commerce, the

Secretaries stayed in their positions for longer periods when agency issues matched the ideological views of the president. These observations cannot be seen as conclusive evidence, but they propose that ideology matters. They also posit that high conflict agencies may attract ideologues set on pushing policy goals and staying as long as possible, or may discourage appointees resulting in high turnover (Dull & Roberts 2009). If ideology links to appointee tenure, then it is also likely to link to appointee-careerist relations and careerist exit decisions. Where ideological appointees are placed deeply inside of the bureaucracy, careerists may be more likely to consider career changes.

Appointee-Careerist Relations

As the preceding suggests, the relationship between career staff and appointees is fraught with tensions; some of which are based in ideological differences. Where party affiliations between career staff and appointees correlate, career staff are more likely to trust appointees, find them competent, and approve of their decisions (Maranto and Hult 2004, Michaels 1995). While overall ideological congruence matters, the bureaucracy tends to be more politically centrist than their appointee counterparts. Bureaucratic compliance is probably a result of policy changes landing within bureaucratic “zones of indifference” (Maranto & Hult 2004).

Related to this point, Golden (1992) found that bureaucrats expressed that it was extreme ideology in appointees rather than partisanship that impacted appointee-careerist relationships. While extreme ideology may matter more than partisanship, there may be heightened impacts and setbacks in appointee-careerist relationships when there is a change in party control of the White House as new appointees will see existing careerists as affiliated with the previous administration (Michaels 1995), which could in turn lead to more turnover.

Friction between appointees and career staff often has more to do with management styles than policy differences (Auer 2008). Appointees may not relate to career bureaucrats; even among those with prior government experience, that experience is often as an appointee (Auer 2008). This can be seen in examples from the Reagan and George H. W. Bush administrations, where party did not change but leadership styles did. George H. W. Bush offered a break from Reagan's bureaucrat-bashing approach by encouraging collaboration between non-careerists and careerists (Auer 2008). At NHTSA, Reagan administration delays in work demoralized staff whereas the energy from appointees under George H. W. Bush invigorated staff, showing that political leadership can directly impact careerist motivation (Golden 1992).

In addition to the direct impacts of appointee actions, careerists often have to reconcile working for administrations that have actively engaged in bureaucrat bashing during campaigns. Bureaucrat bashing influences how bureaucrats perceive themselves, their agencies, programs, and supervisors. Bureaucrat bashing negatively affects appointee-careerist relationships on both emotional and programmatic levels. Garrett and his colleagues (2006) find that on an emotional level, careerists experienced frustration and hostility toward the White House, appointees, and the media; and on a programmatic level, bureaucrat bashing fostered low morale, difficulty with training, and poor recruitment.

All of this friction can lead to administration efforts to encourage careerists to quit. While there is not a large-scale change in the bureaucracy when administrations change, new leadership does have ways to move careerists that they perceive as being problematic. Administrations can push careerists to leave their jobs through three mechanisms: (1) the "frontal assault" where a careerist is told that they can leave their job or transfer elsewhere and be given

assistance, or if they stay, their performance reviews will be damaging, (2) transferring an employee to an undesirable position to encourage them to leave (often involving relocation to a different part of the country), or (3) transferring an employee to a job with no responsibility, referred to as being sent to a “turkey farm” (Lewis, 2008, p.33). Additional mechanisms for moving politically undesirable careerists can be to utilize reductions in force (RIFs) or reorganizations where an individual can be buried in a hierarchy (Lewis, 2008, p. 39).

All of these factors contribute to a hostile work environment. Additionally, it may encourage early retirement decisions and implementation delays as government employees become more risk adverse (Garrett et al. 2006). While careerists may not leave because of one set of appointees, such a hostile work environment may contribute to employee disillusionment that eventually builds to exit desires.

Golden (1992) identified a number of reasons for careerists to resist political control including, 1) ideological differences with the administration, 2) policy disagreement, 3) resistance to change, 4) protection of budgets and turf, and 5) preferences for autonomy. If one then asks what influences bureaucratic decisions to respond or resist, Durant (1990 & 2009) offers a contingency perspective where bureaucratic responsiveness is a function of 1) the amount of change involved for bureaucrats, 2) clarity of presidential goals, 3) perceived impact of a delayed compliance with presidential direction, 4) agency type, 5) agency culture, 6) administrative leadership style, 7) the reward systems, and 8) the availability of external employment.

Careerists respond to their environment in a number of ways. Golden (1992) examines bureaucrat responses to control by adding Hirschman’s concepts of exit, voice, and loyalty to approaches emphasizing the choice between cooperation and resistance. Also added is the

concept of neglect: a passive-aggressive approach where careerists quietly do not do what is asked of them to undermining actions. Auer (2008) similarly found that assuming the guise of neutrality helped civil servants cope with disconnects between personal preferences and administration policy. When civil servants oppose administration actions, they may take a neutral stance and emphasize statutory requirements over exit or voice.

Voice may act as a precursor to turnover or an alternative. Voice appears in multiple ways including arguing back but going along with the final decision, collective action, and leaks. In the Justice Department (DoJ) under Reagan, a number of careerists differed so much from political views that they felt that they had no choice but to leave the agency. Exit was rare because it was viewed as extreme. Exit is also tempered by the availability of other jobs and losing one's voice within the government. Employees at both DoJ and the National Highway Traffic Safety Administration were willing to exercise dissent up to the point of decision-making and then complied with final decisions (Golden 1992).

A number of individual and agency traits temper how people decide if/how to exercise voice. Individual careerist behaviors are influenced by their backgrounds and experiences at the agency. A dominant agency profession fosters forms of communication. For example, Golden (1992) makes the case that attorneys are more likely to argue than scientists and technicians based on their professional training in preparation for an adversarial career. Golden (1992) offers five factors explaining agency differences. These are 1) careerist ideology, 2) dominant agency profession, 3) agency esprit, 4) agency history, and 5) careerist confidence. Thus, turnover intent in the four agencies I am studying would be very significant, given their scientific bases and the difficulties of replacing such expertise.

Bureaucratic Responsiveness

In general, the literature on bureaucratic responsiveness to elected officials shows that bureaucrats are responsive, but that their responses can be tempered by other factors. Headrick, Serra, and Twombly (2002) find that bureaucrats recognize that Congress actively uses the budget as a control measure and that budgetary decreases remove resources needed for enforcement and increases serve as recognition that an agency's work is important. Bureaucrats from the street-level up have an interest in placating congressional committee members to gain resources and avoid negative repercussions. Similarly, Scholz and Wei (1986) find that pragmatic agencies respond to the politicians representing districts where the agency is active. The bureaucracy is responsive to the complex political demands coming for across the federalism system. In such a system, it is difficult for bureaucrats to assess who is in charge.

Moe points out that Niskanen and other proponents of principal-agent theory say that the bureaucracy dominates the relationship between bureaucrats and elected officials, whereas Weingast and others place legislators in the more powerful position (Moe, 1983). Wood (1988) bridges these perspectives by saying that the top-down hierarchical model of elected institution control of bureaucracies is limited when bureaucrats have substantial resources and zeal. Both top-down and bottom-up controls are relevant; for principal-agent theory to work, the agents must be given more consideration.

Wood and Waterman (1998) provide an important perspective on the role of bureaucrats. Bureaucrats need to respond to current political coalitions, previous political coalitions by implementing existing statutes, and the general public. At the same time, they are guided by professional norms and values. Street level bureaucrats also have discretion and adjust policies to meet the needs of their communities. Congress may take these varying demands into account when conducting oversight and alter their demands accordingly. Golden (2000) found that

bureaucrats were responsive to the political world, even in extreme situations. In her case study of federal agencies under the Reagan administration including the Environmental Protection Agency, she discusses how careerists were responsive to appointees and the administration when they sought to completely reverse the course of the agency.

Congress and Interests

Congressional Relationships

In 1984, McCubbins and Schwartz redefined thinking on congressional oversight of the bureaucracy. Previous perspectives viewed congressional oversight as constant, analogized by McCubbins and Schwartz as “policing” systems. They offered “fire alarm” approaches as a more realistic interpretation of congressional oversight. Under fire alarms, Congress relies on interest group alarms to notify them of bureaucratic problems. They assert that Congress can delegate authority to the bureaucracy because Congress knows that alarms will go off if agencies stray too far from legislative intent. Meier, Polinard, and Wrinkle propose that the system is more one of smoke detectors than fire alarms (1999). Where issues gain less public attention, Congress is free to conduct less oversight. They state, “As long as the bottom line [in terms of public attention] is positive, Congress plays no active role. When the bottom line turns negative (a crisis), however, Congress intervenes with legislation designed to shore up the agency at risk”

While the fire alarm metaphor offers descriptive power, authors have found that it is an incomplete picture. MacDonald (2007) cites Aberbach (1990) as noting that in addition to fire alarms, oversight committees foster information networks to allow for continuous oversight. Congress also understands the basic positions of interest groups, tempering their responses when groups sound alarms. Balla and Wright (2001) point out that interest group endorsements give Congress a clear understanding of the ideological direction of information.

The fire alarm approach disregards the complexity of the relationships among Congress, interest groups, and bureaucracies. Epstein and O'Halloran (1995) state that the metaphor fails because it ignores both adjustments made in the bureaucracy to interest group preferences, and Congress' interpretation of interest group activity. Bureaucracies have sufficient information to adjust to avoid fire alarms.

Agencies moderate their proposals to gain interest group support, knowing that interest groups will support any proposal that is better than the status quo. The result is that moderate interest groups resolve issues within the bureaucracies and it is only extreme groups that sound alarms to Congress. Congress tends to discount the claims of interest groups, recognizing that claims are motivated by particularistic concerns. Therefore, fire alarms called by interests may not spur congressional action as readily as the metaphor implies, and when it does, competition among interests prompts groups to propose alternatives that are close to congressional preferences. Epstein and O'Halloran suggest merging the fire alarm approach with the iron triangle, emphasizing a cozy relationship between Congress, interests, and the bureaucracy. Huber and Shipan (2000) assert that an agency's responsiveness varies depending on the relative position of an agency's preferences relative to Congress.

Congress uses various controls to gain information about agencies and direct agency activities. These controls include administrative procedures, hearings, budgets, political appointments, executive orders, legislation, agency reorganizations, informal contacts, and the bully pulpit (see May, Workman, and Jones, 2008; Furlong, 1998; Headrick, Serra, and Twombly, 2002). Additionally, Congress creates advisory committees (see Balla and Wright, 2001) and limitation riders (see MacDonald, 2010).

Controls are thought of as either *ex ante* (designed before implementation) or *ex post* (used after a statute is passed) (Scholz and Wei, 1986; Furlong, 1998). *Ex ante* controls take multiple forms such as procedural requirements, agency structure, or reporting requirements (Furlong, 1998; McCubbins, Noll, and Weingast, 1987). *Ex ante* controls may be more deeply embedded than the immediate statute as well: institutionalists argue that the form of the organization alters congressional control. Decentralization diminishes congressional control while strict hierarchy improves Congress' ability to conduct oversight (Whitford, 2002), as well as agency responsiveness (May, Workman, and Jones, 2008). Anticipating the efforts of future politicians to change an agency's policy, enacting coalitions adjust the structure of the agency to alter transaction costs required in the future (Wood and Bohte, 2004, but see Durant 2007).

A survey of the federal bureaucracy by Furlong (1998) shows that *ex post* controls (budget changes, hearings, limitation riders, new legislation, among others) are thought to be used more often and more effectively than *ex ante* controls. While these may be the most effective forms of control, McCubbins (1999) warns that use of *ex post* control is challenging because it often requires legislative support. An agency only needs to gain the favor of the president or one chamber of Congress to derail control efforts.

Another approach to considering congressional oversight is to distinguish between formal and informal means of control. Formal methods are public and clear methods while informal control is more discrete. For example, a member of Congress may place a private phone call to an agency official. Researchers have little current information on how prevalent this form of communication is and whether it is effective (Furlong, 1998).

The political environment also impacts how Congress chooses to exert power over the bureaucracy. Huber, Shipan, and Pfahler (2001) believe after studying state legislatures that the

choice of control tools depends on four factors: conflict between legislators and bureaucrats, bargaining costs of institutions for controlling bureaucrats, professional capacity of legislators, and the impact of political institutions on the costs and benefits of statutory and non-statutory control. They find that legislatures are more likely to use statutory controls when government is divided within Congress, Congress is unified but has a different party than the executive, the legislature is more professionalized, and the legislature does not have realistic options for non-statutory controls. Similarly, MacDonald (2007) finds that where interest groups are less active, Congress has less information and may be more likely to use ex post restraints on discretion.

The general consensus of recent literature is that Congress does exert control over the bureaucracy, and that the bureaucracy is responsive (Chubb, 1985; Scholz and Wei, 1986). However, there is also an argument to be made that Congress creates the appearance of oversight without any substance. Farrier (2010) finds that Congress delegates its power to the executive branch, saying that in the “national interest” partisan feuding shouldn’t stop activity. Then, when the delegated power becomes controversial or expires, Congress criticizes the outcomes and claims to want the power back. When Congress has another opportunity to gain power, limit discretion, or control oversight, they once again delegate to the bureaucracy resulting in a cycle of granting discretion and bureaucrat bashing.

Gailmard and Patty (2013) add to the discussion of bureaucratic discretion the concept that much of the knowledge that careerists hold is learned on the job and shaped by the political world and institutional knowledge. Instead of conceptualizing careerists who are hired as experts, they see careerists as people who became experts through institutional training. Gailmard and Patty propose that elected officials should provide more autonomy to agencies while being sure that agencies do not stray too far from administration policies and preferences.

Furlong (1998) found that bureaucrats believed that Congress controls most often through the budget, second through hearings, and finally through staff communications to agencies. They ranked the effectiveness of oversight tools in the same order. Both budgetary changes and hearings send unambiguous messages to agencies, with hearings offering one of the only public opportunities for agency officials to have direct contact with members of Congress (Furlong, 1998). The impact of congressional hearings also filters throughout the federalism system. Baumgartner and his colleagues (2011) found that congressional hearings stimulated interest group mobilization at the state level.

Congress also adjusts its activities based on the president. Steunenberg (1992) outlines in theoretic terms how preferences of the president, congressional committees, and the bureaucracy create different policy equilibrium points. The alignment of these three groups alters congressional decisions on whether to act as watchdogs or to introduce new legislation when they want to impact agency activity or policy. Wiseman (2009) proposes a different perspective on the question of congressional or presidential control of the bureaucracy: he asserts that instead of the traditional view of Congress and the president battling for control of the bureaucracy in a zero-sum game, institutions are designed so that both Congress and the president can represent different and conflicting interests through the bureaucracy. That bureaucratic institutions can address multiple needs suggests an explanation for the stability of organizations.

Wiseman's view compliments Steunenberg's variable equilibrium proposition in that he shows through game theory that there are times when Congress will favor the president's Office of Information and Regulatory Affairs (OIRA) regulatory review because the executive branch intervention, under certain conditions, moves policy outcomes towards congressional preferences. These perspectives paint a picture of Congress and the White House employing a

variety of tools to serve political needs placing the bureaucracy in the position of being pulled in multiple directions by various actors. To the extent that these pushes and pulls require agencies to adapt, so too will they require high-level career staff to adjust to environmental demands. Where these pressures are transmitted inconsistently, negatively, and in the form of devaluing messages, it is possible that agency turnover intent will increase through frustration, anxiety, or decreased morale.

While some political science literature focuses primarily on top-down political control of the bureaucracy, there are scholars within the field who present a more dynamic approach where the bureaucracy acts as its own political entity. Waldo's 1948 assertion that administration *is* politics stood as a foundation for many scholars to explore the political nature of administration. More recently, George Krauss (1999) portrays the relationship between the bureaucracy and Congress as a "two-way street" where communications flow both from Congress and the White House to the bureaucracy, and from the bureaucracy out to Congress and the White House.

Earlier works exploring bureaucracies as political entities in their own right include Seidman's work (originally published in 1970) asserting that agencies represent pieces in a larger political game. Their placement and structure represents a series of political choices reflecting power dynamics of the complete political environment including Congress, the White House, interests, states, and localities. Seidman (1998) also makes the case for the distribution of resources within agencies reflecting the balance of power within an agency. At the same time as Seidman's original work, Allison (1971) in his study of the Cuban Missile Crisis presented a new way of interpreting bureaucratic action as the result of political negotiations within the bureaucracy, where separate parts each had their own interests.

Public administration's representative bureaucracy literature continues along these lines by asserting that the bureaucracy itself acts in the interest of the general public in its use of discretion. The central argument they offer is that a bureaucracy that reflects the diversity of the population will respond to the population and represent its interests (Krislov, 1974; Rosenbloom & Featherstonhaugh, 1977; Selden 1997).

Much of the research by Meier and O'Toole explores bureaucratic actions from this perspective as an alternative to literatures emphasizing top-down controls of the bureaucracy. For example, in their 2006 book, they discuss how it is through shared values with the public that bureaucrats are most responsive, in addition to controls from elected officials (Meier and O'Toole, 2006). This perspective of bureaucrats as political actors helps to link how the influences of the political world can impact careerist job perceptions and preferences.

Interest Group Actions

In addition to their role of pulling the fire alarm and informing Congress when agencies stray from congressional intent, interest groups actively work to influence both Congress and the bureaucracies through other avenues. The presence of lobbyists is extensive: in the food industry alone there were an average of 74 interest groups and 118 registered lobbying firms between 1996 and 2004 (Baumgartner et al., 2011). It is widely thought that there is bias in the interest group system toward business, but it is difficult to measure empirically. What is apparent is that business groups are well represented, if not overrepresented. Business groups face fewer barriers to mobilization in that they are rallying organizations with a great deal of funding compared to individual donors (Baumgartner and Leech, 1998, p. 93). In fact, various studies find that over seventy percent of groups represented in Washington are affiliated with business (Baumgartner and Leech, 1998, p. 96).

While the quantity of business interests fluctuates over time, business interests exhibit more stability and longevity than opposing groups (Kraft and Kamieniecki, p. 19). Gordon and Hafer (2005) found that in the case of regulatory agencies, in addition to traditional reasons for campaign contributions, corporations use political spending to send agencies signals that they will launch expensive battles over increased regulation and/or inspection. Therefore, agencies must prospectively factor in additional political and budgetary expenses when considering regulatory and inspection activities.

Both Smith (2000) and Witko (2006) find that interest groups alter their action depending on the political climate. Witko finds that while PACs are able to influence voting on non-ideological and non-visible issues, they are even more effective when issues involve ideology and are visible. Smith's 2000 typology offering three categories of issues (unifying, particularistic, and conflictual) gives a perspective on how interest groups may respond to an event. Industry may unify in an effort to prevent government from expanding its role, industry may allow the small portion of participants that are directly impacted to act on their own if government intervention would only impact that segment, or interests may compete if the result of government intervention would support one segment of the industry over another.

Interest group pressures on agencies not only result in structures and operating procedures that allow them access and influence in future decision making (Skowronek 1982); they may push agencies into either cooperative or defensive positions, either of which may cause dissatisfaction and turnover intent among employees who don't share similar sentiments. Where interest relationships are contentious, agencies may need to adapt their structures to protect against agency slips that will then be reported to Congress and/or the White House.

It is easy to envision interest group tensions forcing tightening of bureaucratic controls and restricting communication, leading organizations to become more rigid and hierarchical, further exacerbating employee discontent, leading to turnover intent. Conversely, more collaborative relationships may promote an open organizational culture fostering less structured lines of communication and encouraging innovation. In either case, interest group interactions may influence organizations, which then can influence individual exit decisions. Moreover, in today's networked or contracted state, agency structures and operations may also be accommodated to the needs and preferences of powerful contractors. Also, as Selznick (1957) argues, agencies bent on coopting interests in their environment are also co-opted to accommodate their needs.

The political nature of an agency can alter employment options for upper-level careerists as well. Borjas (1982) discusses how job experience in politically important federal agencies is highly valued in the private sector. Therefore, high-level careerists at these agencies have higher turnover probabilities. Understanding high-level turnover rates is a function of pay differentials and career opportunities that are influenced by an agency's political environment. Labor economists propose that turnover occurs when an individual's discounted stream of earnings in an alternative job exceeds the discounted stream of earnings in their current job where earnings represents one's concept of utility rather than pay alone (Borjas, 1982). In 1980, Borjas hypothesized that if federal agencies function as political bodies that seek to maximize political support by being responsive to key constituents, government will assign different wage/employment packages for agencies that are politically valued. This holds true to recent events where post 9/11 security agencies including the newly formed Department of Homeland Security were exempted from federal hiring laws.

Agency constituents understand that to maximize their benefits from an agency, they need to lobby the agency effectively. To do this, they need to understand how the agency works and benefit from the experience and connections that agency insiders offer. Therefore, constituent groups are likely to seek to hire agency employees. Because of this, managers and upper-level employees are more likely to have higher turnover probabilities because they have opportunities from private sector constituents. When Borjas held wages constant, he found that turnover likelihood was higher among agencies with greater political value. When pay and agency political power were interacted, highly paid employees in politically valued agencies had greater turnover propensities. Overall, turnover among careerists was inelastic to changes in federal wages. Borjas (1982) concluded that political factors need to be incorporated into models of federal turnover.

Conclusion

In this chapter, I have reviewed a disparate range of literature that has something to say about the factors that may affect turnover intent in federal agencies. Unlike in prior research, I incorporate literatures dealing not just with internal agency factors, but also external agency factors, portraying a decidedly complex work environment for federal careerists. In the next chapter, I use archival research to understand the political environments of the four agencies in my case study. In doing so, I give a brief overview in Chapter 3 of agency histories, discuss major issues that were relevant during my period of study (2005 to today), and present agency information on a series of variables that are used to measure the stability-turbulence factor for each agency. With this as background, we will then be ready to develop a fully integrated model in Chapter 4 that considers both internal management and external environmental factors of employee turnover intent, a model that is lacking in current research.

CHAPTER 3

AGENCY HISTORY AND POLITICAL ENVIRONMENT

Each of the four agencies in this case study, the Centers for Disease Control and Prevention (CDC), the Centers for Medicare and Medicaid Services (CMS), the Food and Drug Administration (FDA), and the National Institutes of Health (NIH) operate in distinct political environments with unique histories that shape how they function both internally and externally. The previous chapter discussed multiple literatures that I use to understand how agencies operate and what drives career choices for individuals. Among those literatures were the open systems literature discussing how the political environment alters organizations, and political science and public administration literatures on bureaucratic relationships with the White House, Congress, interest groups, and appointees.

Drawing from this knowledge base, this chapter uses archival research to give the political context for each agency by examining its political environment and history. The chapter addresses each agency in depth by looking at agency history, major issues from 2005 to 2013 (the time frame of this study), and a discussion of the various measures of stability-turbulence in the political environment that is specific to the agency (See Appendix A). These include measures and trends for the number of federal register documents published annually, congressional testimony, congressional bills introduced, presidential documents, mentions in the State of the Union Address, the ratio of appointees to careerists, and *New York Times*. Descriptive statistics for each of these variables can be found in Appendix B: Cross-Agency Comparison Tables, Descriptive Statistics on Political Environment Measures in Tables 10 through 19.

The chapter concludes by integrating all of this material to see what is both similar and unique for all of the agencies. Noted also are the inherent difficulties of measuring and typifying

agencies using cross-sectional data, “agency” as the primary unit of analysis, and multiple measures to establish a single stability-turbulence metric for public agencies. Discerned, nonetheless, are significant differences in the political scrutiny each agency experienced, and thus in stability-turbulence factors that might affect employee turnout intent directly and indirectly in each of the four agencies.

The Centers for Disease Control and Prevention (CDC)

The CDC conducts two core tasks, epidemiological studies and public education, and is primarily a scientific agency. Epidemiology for the CDC may be tracing an event or outbreak, or conducting research on broader health trends such as population changes in tobacco use or obesity. Information collected by the CDC is used in public education campaigns and is widely cited in newspapers, academic research, and by politicians. CDC maintains a leading role in various government efforts including identifying the sources of pathogen outbreaks, reductions in teen smoking, and changes in recommended health screenings. CDC is also uniquely positioned among HHS agencies in that its physical headquarters is located outside of the Washington, DC metro area altering the agency’s ability to have face-to-face contact with elected officials and limiting the ability of employees to move to other agencies without geographically relocating.

Agency History

The story of today’s Centers for Disease Control and Prevention begins with the League of Nations and Rockefeller Foundation leading efforts both domestically and internationally to control malaria. However, the Rockefeller Foundation envisioned and sought a public-private partnership to fight the disease (Stapleton, 2004). With the onset of World War II, the federal government saw the need to control malaria in areas where the military had bases and maneuver

areas. The program was called the “Malaria Control in War Areas Program” and was operated by the Office of National Defense Malaria Control Activities. Given that most of the domestic U.S. military bases and areas concerned with malaria were located in the south, the program was headquartered in Atlanta, Georgia. As the war progressed, the malaria program was extended to address other communicable diseases including yellow fever, dengue, and typhus. (Centers for Disease Control and Prevention; Parascandola, 1998)

Because CDC’s original purpose was malaria control primarily through mosquito abatement, many of the original staff were entomologists and engineers. Only seven of almost 400 employees were medical officers. CDC leadership recognized that to grow its role in controlling communicable disease, efforts needed to shift to epidemiology. In 1947, CDC took over the Public Health Service’s Plague Laboratory in San Francisco shifting away from abatement and toward epidemiology. (Centers for Disease Control and Prevention)

By 1949, the head of the epidemiology branch, Dr. Alexander Langmuir, began disease surveillance programs. As part of this, CDC determined that malaria was virtually eradicated in the U.S., allowing the agency to shift its work and priorities to surveillance and epidemiology. The onset of the Korean War provided another opportunity for CDC to redefine itself. The threat of biological weapons was the impetus for CDC to form the Epidemiological Intelligence Service. This elite team of “disease detectives” could be deployed around the world to identify the cause of outbreaks. (Centers for Disease Control and Prevention)

While the CDC had successfully reinvented itself from mosquito control to advanced epidemiology tracking diseases and outbreaks, it still had to compete for resources and position within the Public Health Service (PHS). At the time, the PHS was firmly backing the research approach taken by the National Institutes of Health, given the explosion of scientific advances in

the early and middle of the twentieth century, but two CDC achievements cemented its public health role. The first was when epidemiological work in 1955 proved the effectiveness of the new polio vaccine, and the second was when epidemiology surrounding a 1957 influenza epidemic led to developing guidelines for influenza vaccines. (Centers for Disease Control and Prevention)

In the late 1950s and 1960s, CDC grew through reorganization. Programs were moved from across the PHS to CDC. These programs included immunizations, venereal diseases, tuberculosis, the Foreign Quarantine Service, nutrition programs, and the National Institute for Occupational Safety and Health. The CDC also took control of the *Morbidity and Mortality Weekly Report* that serves as an important tool for CDC to communicate with healthcare professionals and the public. Existing CDC programs broadened their role with the epidemiology branch adding chronic disease surveillance and family planning to its repertoire. (Centers for Disease Control and Prevention)

The CDC did not just grow domestically. CDC took on a greater international role during this time as well. CDC scientists participated in international malaria-eradication programs, went to Southeast Asia to help with cholera and smallpox epidemics, and played a critical role in eradicating smallpox while working in the Pacific islands, South America, and Africa. CDC also investigated and identified the deadly Ebola virus when it was first identified in 1976 in Zaire and Sudan. Its international role continues today as a critical part of CDC's mission. In addition to the accomplishments already discussed, CDC epidemiology has accomplished a number of other major achievements. In the 1970s and 1980s, CDC identified the causes of Legionnaires Disease and Toxic Shock Syndrome. In 1981, CDC first identified acquired immunodeficiency syndrome (AIDS), three years before NIH began research on AIDS.

Next, CDC identified folic acid deficiency in pregnant women as a source of birth defects. All of these discoveries have led to both prevention approaches and treatments that have impacts countless lives. (Centers for Disease Control and Prevention)

While CDC's history is full of accomplishments that have changed the public health world, its history is not without scandal. From 1932 to 1972, the PHS (CDC from 1957 to 1972) with the Tuskegee Institute conducted a study of the progression of syphilis when left untreated. Conducted in Macon, Alabama, study participants were a group of poor African American men who believed they were receiving free medical care from the federal government. Six hundred men were enrolled in the study in 1932. At the time, two-thirds had syphilis and the other third did not. Those with syphilis were never told that they had the disease. Instead, the government told them that they were being treated for "bad blood".

In 1947, the standard and effective treatment for syphilis was penicillin. Ethically, one would expect that the researchers would give participants penicillin to treat their syphilis. Instead, the participants went on untreated until the press learned about the story in 1972. In addition to the damage done to the study participants, family members of the participants also ended up with syphilis unnecessarily. The violations eventually led to the establishment of the Office of Human Research Protections in the Department of Health and Human Services and federal rules requiring Institutional Review Boards for any research involving human subjects. In 1997, President Clinton issued a public apology from the U.S. government for the Tuskegee Study (Centers for Disease Control and Prevention).

The CDC made a deadly error in judgment again in 1976 when it responded too quickly to fears of a swine flu outbreak. After one case of a young man dying at Fort Dix, NJ from a form of influenza that appeared to have jumped from swine to humans, public health officials

initiated a widespread campaign to prevent the virus from becoming a pandemic including vaccinating 40 million people (McNeil, 11/6/2005). In their efforts to be vigilant, the CDC encouraged widespread vaccinations. The influenza never materialized, but the vaccination was thought to have dire side effects. Shortly after inoculation, several hundred people developed Guillaine-Barre Syndrome causing temporary muscle weakness or paralysis. Of those who developed the syndrome, over 30 people died. Once the potential problem was identified, the CDC immediately stopped use of the vaccination. While the link between that particular influenza vaccination and Guillaine-Barre Syndrome was never conclusively proven, the risks of moving to quickly on a potential outbreak exemplified in this case are still present in CDC's response plans (Pollack, 5/9/2009).

Major Issues - 2005 to Present

Pandemic Flu

Fear of a pandemic influenza is always a critical concern for public health officials. In 1918, the Spanish Influenza swept through the world killing approximately 50 million people. Since then, U.S. officials worked to develop pandemic influenza plans to combat an outbreak quickly and effectively (<http://www.cdc.gov/flu/about/qa/1918flupandemic.htm>). After the 1976 swine flu scare and subsequent deadly side effects of the vaccination, the CDC has worked to balance the need for a rapid response with the potential dangers of an intervention (Pollack, 5/9/2009).

In 2003, pandemic flu plans came to the public's attention again as patients in Southeast Asia appeared in hospitals with an unusual form of pneumonia. When a similar case was reported in a Canadian hospital, world health officials including the CDC immediately took action. Scientists determined that the pneumonia was caused by a new variant of the corona

virus that they named severe acute respiratory syndrome (SARS). The virus quickly spread across the world infecting over 8,000 people and killing 774. The CDC quickly placed 850 employees on the issue, deploying many of them internationally and to U.S. points of entry. Collaborative efforts between the World Health Organization, CDC, and governments across the world contained the outbreak. (<http://www.cdc.gov/about/history/sars/feature.htm>)

The SARS outbreak in 2003 highlighted the need for pandemic flu preparations. While CDC had worked for decades on this issue, it drew public attention again in 2005 when President Bush requested \$7 billion to prepare for a pandemic flu outbreak. The plan involved stockpiling antiviral medications, building infrastructure to quickly produce vaccines, and money for research (Harris, 11/2/2005). Scientists and public officials had braced themselves for a full-blown outbreak of an avian flu since it had begun appearing in Southeast Asia in 1997, although ten years later, only about 200 deaths were linked to avian flu viruses (McNeil, 3/27/2007).

In April 2009, the U.S. faced the beginnings of its first large-scale pandemic flu in decades. The new swine flu was named H1N1 by World Health Organization officials and began in Mexico. Because of President Bush's investment in pandemic flu preparation, and lessons learned from Hurricane Katrina, CDC officials and agencies across government moved when the beginnings of a pandemic were apparent and kept the White House involved at all stages (Pear & Harris, 4/28/2009). With rising fears of the danger of H1N1, details of the federal pandemic plan emerged that were unsettling to the public. For example, the plan specified in the case of a vaccine shortage who should receive shots first (healthcare workers, pregnant women, and children) (Grady, 7/30/2009).

The CDC was placed in an awkward disagreement with the White House when the President's Council of Advisors on Science and Technology reported alarming predictions for

the spread of H1N1 that included 1.8 million people hospitalized, 50-100% of intensive care hospital beds taken up by H1N1 victims, and 90,000 deaths in the U.S. The CDC cautioned that they believed the numbers were far higher than they anticipated, but needed to walk a fine line to not contradict the White House. (McNeil, 8/26/2009)

In October, H1N1 appeared in 46 states and President Obama officially declared swine flu an emergency allowing additional funding and initiating the next stage of the pandemic flu plan (Calmes & McNeil, 10/25/2009). But public efforts hit a bump when it became clear that insufficient quantities of the swine flu vaccine were produced and manufacturers rushed to overcome the shortfall (Pollack & McNeil, 10/26/2009). As the virus hit children particularly hard, the government released a stockpile of the antiviral, Tamiflu, for kids (McNeil, 10/31/2009). Remembering the disastrous 1976 swine flu vaccination, CDC reviewed safety information after two months of large-scale vaccination efforts to find that the 2009 vaccine appeared safe (Grady, 12/5/2009).

By January, the worst of the pandemic had passed with approximately 11,000 deaths (McNeil, 1/16/2010) and over 60 million people vaccinated. The CDC held public meetings to discuss what had worked and not worked in the government response. The agency generally won praise for their efforts with the exception of the shortfall in vaccinations (McNeil, 1/2/2010).

Vaccine Safety and Autism

While vaccination safety is always a concern at CDC, the idea that the childhood measles, mumps, and rubella (MMR) vaccine was linked with rising autism diagnosis rates in 1998 brought the issue to the public's attention. A paper that was later proven fraudulent in the highly-regarded British medical journal, *The Lancet*, claimed that otherwise healthy children

began displaying autism like behavioral problems soon after receiving the vaccination. Hearing the stories about the risks of vaccination, many parents jumped to blame their children's health concerns on vaccinations, while others began refusing vaccinations for their children. A mercury-based preservative, thimerosal, in the vaccines was thought to be the culprit of vaccine side effects and removed from vaccine formulation (O'Connor & Harris, 2/25/2005).

As the controversy grew, CDC's dual role of encouraging vaccinations for public health and monitoring the safety of vaccinations came into question. In 2003, CDC had a key report outlining the side effects of thimerosal that the agency did not release to the public. By 2005, amidst calls for greater CDC transparency, the agency decided to split the two functions, encouraging vaccination and monitoring safety, to reduce the perception of a conflict of interest (O'Connor & Harris, 2/25/2005).

The issue of autism and vaccinations continued even as the original article connecting the two was partially redacted, mainstream medical researchers found no link, and the suspect ingredient was removed. By this point, politicians were actively involved. In 2008, Senator McCain announced that there was strong evidence that the increase in autism diagnoses was due to preservatives in vaccines (Carey, 3/4/2008). The scientific community continued to challenge the vaccination-autism link, but stories kept emerging about families believing vaccines caused autism in their children (see Harris, 3/8/2008). Once the link between vaccine preservatives and autism was debunked, a new theory emerged that the vaccines triggered underlying mitochondrial issues causing autism (Harris, 6/28/2008). The CDC currently tracks autism rates, vaccination side effects, and works to encourage families to make sure that their children are vaccinated.

Earthquake in Haiti

A 7.0 magnitude earthquake devastated Haiti in January 2010. Virtually all structures in the earthquake's path were destroyed leaving no housing or infrastructure including clean water. By October of that year, Haitian officials identified a cholera outbreak. The CDC sent a team to Haiti within a few days of the official declaration. CDC, with international public and nonprofit partners, quickly distributed information on how to prevent contracting cholera, and set up treatment stations. The international effort was thought to prevent 7,000 deaths (http://www.cdc.gov/haiticholera/haiti_cholera.htm). In the next year and a half, there were 531,000 illnesses and 7,050 deaths from cholera in Haiti. Initial fatality rates of over 9 percent were down to 1.3 percent by 2012 (Sontag, 4/1/2012). CDC's cholera prevention programs in Haiti are ongoing.

Measuring the Stability-Turbulence Factor in CDC's Political Environment

As the data summarized in Table 11 illustrates, the budget for the CDC showed a modest increase between 2005 and 2012. During that period, the agency's budget grew 9.57 percent. The low was in 2007 at \$6.082 billion and the peak was 2012 at \$6.806 billion. The average budget was \$6.450 billion and the largest single jump in budget was a 7.9 percent increase from 2008 to 2009 and the largest drop was 4.8 percent. Federal register documents also show little change from 2005 to 2012. The fewest documents were produced in 2007 (475) and the most in 2005 (622), averaging 542 a year (see Table 18). There is no clear trend of increases or decreases in CDC federal register document publication. Where there is a clear movement is in the number of FTEs allocated to CDC as shown in Table 12. Total FTEs increased by 25.64 percent from 2005 to 2012. The increase begins in 2008 with a 4.34 percent increase over 2007. The lowest staffing levels were in 2006 at 8,510 FTEs increasing to a high of 10,877 in 2012.

The average was 9,509 FTEs. Thus, this variable shows a stable agency environment with political support from the executive branch with its increase in FTEs.

Public congressional attention peaked for both testimony and bills referencing CDC in the 2007-2008 session with 253 examples of testimony and 604 bills introduced as illustrated in tables 15 and 16. The 2011-2012 session represented the least congressional activity with 109 testimonies and 319 bills. The average number of congressional testimonies referencing CDC was 194 and the average number of bills introduced that included CDC was 462.

One sees in Table 19 that there were only a handful of CDC mentions in presidential documents. The number of presidential documents referencing the CDC was below six for every year between 2005 and 2013 except 2009, President Obama's first year in office and the year of the swine flu pandemic, when 13 presidential documents referenced CDC. Two years had only two presidential document references – 2007 and 2012, and the overall average was 5.11 presidential documents referencing CDC a year. The CDC was never explicitly mentioned in State of the Union addresses.

In terms of the ratio of appointees to careerists, the CDC is the least politicized of the agencies in this study with only one non-career appointee in both 2008 and 2012 (see Table 14). Only 0.011 percent of CDC employees were appointees in 2008 and 0.009 percent in 2012, noting that the change in the ratio was driven by increases in FTEs rather than the loss of appointees. This measure again supports an argument for the stability of the agency's environment and is consistent with Lewis' 2008 proposition that techno-scientific agencies are less politicized than others.

As illustrated in Table 13, *New York Times* coverage of the CDC's activities averaged 275 articles per year. Coverage levels were fairly flat except for a spike in activity related to the

swine flu in 2009. The lowest number of articles in a year was 197 in 2011 and the greatest was 381 in 2009. Excluding 2009, all other years had 306 or fewer articles. In this case, the driver of outside attention to the agency is an act of nature rather than a decided movement by the political world. That being said, once the issue arose, as shown in the discussion above, the political world quickly found a way to become involved.

Thus, overall, measures of CDC's political environment show mixed results where some measures are steady, others show a stable environment that is subject to spikes in attention coming from external events, and still other measures (because of their consistency with findings for other agencies) appear to have more to do with Congress' routine business as a whole than exclusive attention to CDC. The budget, federal register documents, and appointee-careerists ratios all were stable. Other measures had more movement.

Interestingly, while the budget was steady, FTE allocations increased. The increase in FTE allotments is an indication of long-term political support coming from the executive branch. Congressional testimony and bills seem to be more connected to overall congressional productivity than specific CDC events as these trends are consistent with trends for NIH and FDA, and are consistent with the increasingly contentious partisan environment. The swine flu of 2009 explains a spike in both *New York Times* coverage and presidential attention. Even with that spike, the majority of press coverage conveyed CDC's success with limited critique of shortcomings. As you will see in chapter 5, CDC's stable and largely positive environment correlates with its having the lowest turnover intent among the four agencies in this study.

The Centers for Medicare and Medicaid Services (CMS)

CMS is a massive health insurance provider with the primary daily function of writing checks and regulating the health insurance and healthcare industries, producing highly

measurable outputs. However, if the true goal is to improve the health of beneficiaries, it is difficult to impossible to measure whether CMS activities are effective. CMS operates within a unique structure where their primary funding is through entitlements rather than discretionary spending. CMS' financial structure also requires that they partner with states and industry for almost all of their activities. CMS pays private health plans and supports state plans through matching funds. CMS also regulates the health insurance industry. CMS programs currently provide health care coverage for over 100 million people. (cms.gov)

Agency History

Early Attempts at National Health Insurance

As today's home of Medicare and Medicaid, CMS holds the largest health insurance systems in the U.S. government. The history of CMS as an agency is rooted in the story of government sponsored health insurance efforts. The beginnings of national health insurance programs date to 1912 when government-provided health insurance for industry became a campaign issue. By 1915, progressive reformers pushed for a state-based system of compulsory health insurance. Their efforts failed, but the issue remained and in the 1920s, the Committee on the Cost of Medical Care suggested group medical care and voluntary insurance as cost control approaches. Those in opposition to these recommendations dubbed the suggestions "socialized medicine". (Hoffman, 2009)

New Deal efforts to create a social safety net once again brought health insurance into public debate (1934-1939). President Roosevelt's Committee on Economic Security included a national health insurance proposal in its suggestions for a new social security program. While there was public support, President Roosevelt thought that including health insurance in the original Social Security efforts would jeopardize the entire proposal and chose to split health

insurance off from Social Security. After Social Security made it through Congress in 1935, health insurance was considered as a stand-alone endeavor. However, the political tide had turned by 1938 when southern Democrats joined forces with Republicans to stop further expansion of government. (Hoffman, 2009)

During World War II, health insurance was exempted from wage and price controls, making it a resource that employers could use to entice employees when other tools were frozen. This gave rise to widespread use of private group insurance plans. When WWII ended, President Truman offered national health care as part of his “Fair Deal” proposals. After early frustrations, he believed that the stage was set for a national health insurance program in 1948. However, southern Democrats stymied his efforts because they believed that national health care threatened segregation by giving the federal government access to segregated southern hospitals. Opponents of national health insurance also linked the program to communism, and private industry and labor unions continued the rapid expansion of group health insurance without government assistance (Hoffman, 2009).

Medicare and Medicaid

After the growth of employer sponsored, tax-supported private health insurance in the 1950s (left over from wage-price controls at end of WWII), insurance companies started getting more sophisticated in setting their rates, charging higher rates for those who were older and/or less healthy. Purchasing health insurance became cost prohibitive for retirees and those with existing medical conditions. In 1960, Congress passed the Kerr-Mills Act providing federal subsidies to states for providing insurance for the elderly; only 28 states chose to participate leaving coverage spotty and insufficient (Hoffman, 2009).

President Kennedy supported a proposal in 1962 to provide hospital coverage for the elderly through Social Security, but was stopped by southern Democrats. In 1964, President Johnson leveraged all of his political capital to push through a three-part medical insurance program: Medicare Part A providing hospital coverage for the elderly, Medicare Part B providing a plan that the elderly could buy into for physician care, and Medicaid providing insurance for those in poverty. The programs were incorporated into the Social Security Act and signed by President Johnson in 1965 accompanied by President Truman who became the first person to sign up for Medicare (Hoffman, 2009; Kaiser Family Foundation). Medicare and Medicaid were initially housed in two different agencies; Medicare in the Social Security Administration and Medicaid in the Department of Health, Education, and Welfare. Careerists ran both programs (Berkowitz, 1998)

Organization and Reorganizations

By 1976, the Secretary of HEW, David Matthews, released a report discussing the benefits of reorganizing Medicare and Medicaid into the same organization. President-elect Carter immediately contacted his choice for HEW Secretary, Joseph Califano, to look into the possibilities. Once in office, one of Secretary Califano's first priorities was to restructure the department. He gathered together a group of careerists and instructed them to develop a reorganization plan that placed Medicare and Medicaid together. The group worked secretly to insulate them from the political pressures that Secretary Califano anticipated from Congress (Berkowitz, 1998).

In March 1977, Secretary Califano announced his reorganization plan moving Medicare, Medicaid, and the Bureau of Quality Assurance from the Health Services Administration into one organization titled the Health Care Financing Administration (HCFA). HCFA's goal was to

administer the programs with an emphasis on cost control and efficiency, including addressing fraud and abuse (Berkowitz, 1998). The agency was later renamed the Centers for Medicare and Medicaid Services (CMS) in 2001. Structurally, employees for each of the components of the new HCFA organization were housed in different locations around Washington and Baltimore. As the new organization was formed, both physical locality and turf wars led to the 1979 decision to consolidate HCFA components into one space in Woodlawn, Maryland (Berkowitz, 1998).

Medicare and Medicaid Reforms

Two themes run through reform efforts for both Medicare and Medicaid: program expansion and cost control. The first major expansion of the Medicare program happened in 1972 when the program was extended to people with long-term disabilities. Subsequent expansion broadened benefits and gave beneficiaries more coverage options (Kaiser Family Foundation, CMS Milestones). The Medicaid program also saw expansion in the 1980s and 1990s. Federal Medicaid requirements were incrementally changed to include more women and children at higher income thresholds (Kaiser Family Foundation, CMS Milestones).

The second theme of Medicare and Medicaid reforms is cost control. Within the first few years of the program, it was evident that costs were rising quickly and that long-term solvency was an issue (Berkowitz, 1998). The first legislative efforts to control Medicare costs appear in the Omnibus Budget Reconciliation Act of 1981 and continued almost annually through the 1980s. Again in 1997 and 1999, Congress passed cost-savings statutes (Kaiser Family Foundation).

Failed National Health Insurance Efforts

Between the establishment of Medicare and Medicaid and 2005, national health insurance programs were seriously debated three times without success. Beginning in 1970, inflation and rapidly rising healthcare costs concerned the country. In 1970, Senator Ted Kennedy formulated a plan for a single payer national health insurance. President Nixon created his own plan in 1971 that required employer contributions. Multiple other plans emerged. In the flurry of activity, there was bipartisan support for some form of universal health care. However, scandals drew attention away from health insurance when the Watergate hearings and personal embarrassments for Representative Wilber Mills, the chairman of the House Ways and Means Committee, dominated Washington. (Hoffman, 2009)

When President Carter took office, Senator Kennedy saw a new opportunity to push for national health insurance announcing a new plan. President Carter said during his campaign that he supported a national health insurance plan, but backed down to focus on controlling costs once in office. One month after Senator Kennedy announced his plan, President Carter presented his own. With low trust in government after Watergate, and a rising conservative movement, neither proposal gained any traction (Hoffman, 2009).

When President Reagan and President George H.W. Bush were in office, energy was spent on controlling the costs of the existing Medicare and Medicaid programs rather than expanding government through a national health insurance program, but people began to show concern about their ability to maintain health insurance in the future. President Clinton proposed a “managed competition” approach to universal coverage. Then-First Lady, Hillary Clinton, led the effort. With a well-organized opposition, a split democratic party, and a highly complex implementation structure that made it politically vulnerable as unwieldy, Congress was unable to push any large-scale reform through. The Clinton administration moved to a more incremental

approach to health insurance reform and successfully developed and enacted the State Children's Health Insurance Program in 1997. (Hoffman, 2009)

Major Issues – 2005 to Present

Implementing the Medicare Prescription Drug Coverage Benefit

At the start of 2003, Congress authorized the offering of a prescription drug coverage plan to Medicare beneficiaries. By January of 2006, CMS needed to have a system in place to allow people to sign up for the plan of their choice. CMS implementation of this system dominated *New York Times* coverage of CMS in 2005 and 2006. Early stories looked at whether health plans would participate at high enough rates to make the system work. Initially, a critique of the plan was that private insurers would not find it worthwhile to offer plans. In February of 2005, large insurance plans began to signal that they would participate. As they decided that government subsidies of the plans minimized financial risks, they needed to establish themselves early in the market to gain competitive advantage over firms that joined later (Pear, 3/6/2005).

At the same time, costs estimates for the program continued to rise. When the legislation was passed in 2003, the cost estimates hovered around \$400 billion, but by February of 2005 estimates changed to \$720 billion (Pear, 2/9/2005). As the initial legislation barely made it through the House with a 220-215 vote count, the high costs sparked criticism from Democrats about the competency of the Bush White House (Pear, 2/9/2005). It also came to light that the Bush administration suppressed careerist cost estimates in 2003 that were more realistic than the \$400 billion presented by the Bush administration. Medicare Actuary, Richard Foster, revealed that he was told he would be fired if he gave Congress his true estimates of plan costs (Rosenbaum, 11/20/2005).

States joined in on criticism of the prescription drug plans complaining about the requirements that states contribute to the federal program. They did so because the program eased federal Medicaid costs but resulted in increased costs to the states (Pear, 2/28/2005). The plan was also presented as a boon for the prescription drug industry and their lobbyists, not a success for the public, as specifics of the legislation favored industry over cost control measures such as a ban on government bulk purchasing of drugs (Krugman, 1/20/2006).

Early in the implementation process, reviews were mixed on the success of the program. On one hand, initial costs were 20 percent lower than expected as beneficiaries opted for lower price plans over more comprehensive plans (Pear, 2/3/2006). However, there were bumps in the implementation process, including jammed telephone lines, crashing computer systems, and billing and payment mistakes (Pear, 4/24/2006). Soon after implementation, beneficiaries became frustrated when they realized that the plan included a gap or “doughnut” where after a certain point, coverage ceased until beneficiary spending hit an upper threshold where coverage resumed again (Pear, 7/30/2006).

Fighting Over the ACA

After the 2008 presidential election where national health insurance programs and reforms were one of the most contested issues along with the economy, much of 2009 was spent debating and building what would become the Patient Protection and Affordable Care Act (ACA). The Democrats viewed the weak economy as providing a window of opportunity that made the public responsive to expanded government roles in health insurance. Public opinion surveys showed that people were concerned about the price of healthcare and thought that they would personally experience a lapse in coverage at some point in the next decade (Pear, 10/25/2009).

The debate expanded to include CMS careerists when CMS's chief actuary, Richard S. Foster, testified that the ACA would actually increase aggregate health care spending. As noted earlier, Mr. Foster had been the recipient of congressional attention before when it came to light in the Bush administration that his job had been threatened when he wanted to testify during debates on Medicare's Prescription Drug Coverage Plan that his cost estimates were higher than those released by the administration (Rosenbaum, 11/20/2005). Mr. Foster's testimony on ACA costs became one of the cornerstones for Republican opposition to the ACA in the weeks ahead (Pear and Herszenhorn, 12/12/2009; Herszenhorn, 12/14/2009).

The ACA made it through the House in March 2010, and was finally signed by the president on June 25, 2010. The White House knew that Republicans would continue to fight against the ACA and implementation was critical to the ACA's success and President Obama's legacy (Calmes, 4/18/2010). However, CMS had not had a Senate confirmed administrator since October of 2006, and the agency needed to gear up for a massive implementation effort.

Appointment Controversies

Finding the right leader for CMS and one that could survive the Senate approval process was a daunting task at the beginning of the Obama administration in the midst of a battle over extending government sponsored health insurance. CMS had run without an appointed administrator since October 2006 and careerists were making decisions when necessary, but deferring other choices until an appointee was onboard. In August of 2009, the Obama administration still hadn't put forth a nominee. (Pear, 8/18/2009)

Within days of passing the ACA, the administration floated rumors that they were nominating Dr. Donald M. Berwick for the position. Dr. Berwick brought extensive policy expertise, but no experience in running a large bureaucracy (Pear, 3/28/2010). Dr. Berwick was

nominated on April 19th, 2010. Republicans in the House and Senate seized the opportunity to use past policy statements by Dr. Berwick to paint the ACA and the Obama administration as catastrophic and attempted to block his appointment (Pear, 6/22/2010).

In early July, the Senate took a recess scheduled to last less than two weeks, and President Obama used the opportunity to bypass the Senate with a recess appointment of Dr. Berwick to the role of CMS Administrator (Pear, 7/7/2010). The appointment would run until late 2011 when Dr. Berwick's appointment would require reauthorization. This gave time to get the initial work of the ACA underway (NYT 7/8/2010). Early congressional testimony was not as contentious as expected, but the confrontations with the House were expected after the midterm elections brought in many conservative representatives (Pear, 11/18/2010). President Obama continued to nominate Dr. Berwick to go through the appointment process. In fact, the president nominated Dr. Berwick three times with no confirmation hearings held. However, the White House offered Dr. Berwick only tepid support, never applying pressure to the Senate to go through the full confirmation (Pear, 3/8/2011, Pear, 11/24/2011).

In March 2011, eyes turned to Dr. Berwick's principal deputy, Marilyn B. Tavenner, as the next nominee (Pear, 3/8/2011). Dr. Berwick stepped aside in November, and the Obama administration nominated Ms. Tavenner, known as more of a manager than a policy innovator (Pear, 11/24/2011). Dr. Berwick reflected in interviews about his time at CMS on a number of issues. He spoke of his frustration with the amount of waste he saw in the system, and frustration that things could not move faster (Pear 12/4/2011). He also spoke about reinvigorating careerists by reconnecting them with a sense of mission as a health improvement agency rather than as a payment processor, and he also expressed surprise at the high quality of the staff. He hoped that his efforts to "...reconceptualize [CMS] as an improvement agency"

would stick (Nocera, 12/6/2004). Ms. Tavenner's confirmation sailed through in May 2013 with a 91-7 vote; she had Republican support stemming from her years working in Virginia with Rep. Eric Cantor (Pear 5/16/2013).

Early ACA Politics and Implementation

The Obama team moved quickly in 2010 to get ACA implementation off the ground. The President assembled a team of close advisors to oversee implementation. Secretary of Health and Human Services, Kathleen Sebelius, took close interest in the formulation of regulations stemming from the ACA, and began reorganizing CMS. Part of that reorganization included forming an Innovation Center that would support pilot programs seeking to reduce costs. These pilot programs did not require congressional approval. (Calmes, 4/18/2010)

As implementation began, President Obama and his team widely publicized new proposals and plans trying to decrease public skepticism (Stolberg, 6/7/2010). But Republicans effectively kept public concerns high. One nagging issue was the question of "death panels". One proposal that was debated in the legislative process was over provisions that encouraged end-of-life planning as a cost control measure. Republicans presented end-of-life planning as a government "death panel" that could cut off payment streams for terminally ill patients that sought to extend life through expensive treatments. In order to pass the legislation, Democrats dropped end-of-life provisions in the legislation, but the Obama administration reinstated them through regulation (Pear, 12/26/2010). Within a few days of the regulations coming into effect, the Obama administration responded to the revitalized political firestorm surrounding end-of-life choices by eliminating references to end-of-life planning in regulations (Pear, 1/5/2011).

The debate over the ACA continued into the 2012 elections. Although, the plan was based on the Massachusetts system instituted under republican governor, Mitt Romney, then

presidential candidate Romney moved away from the program he had instituted on a state-wide basis, saying he would not have supported a nation-wide effort. He then ran against President Obama using the ACA as a key issue.

Many viewed the 2012 election as a referendum on the ACA, where the life or death of the legislation depended upon who was elected (Goodnough & Pear, 10/11/2012). After the election, Republicans in Congress continued to try to thwart the ACA through every means possible. For example, when Congress chose not to fund outreach and education efforts, the Obama administration diverted funds from other programs, causing a stir on Capitol Hill (Pear, 4/26/2013). In August of 2013, Congress tried to pass a law prohibiting the IRS from enforcing the law through penalties to people who did not buy insurance (Pear, 8/2/2013).

Implementation Crashes and Rises on Computers

Quickly after the rollout of the federal online health insurance exchange website, it was clear that there were technical problems threatening successful implementation of the ACA. Within days, the website crashed because a major software component malfunctioned under the weight of large volume. The system that had worked with lower volume was not powerful enough to handle a massive influx. Private contracting firms funded through CMS designed the site (Calmes, 10/6/1013; Shear & Pear, 10/8/2013).

Reports began to surface that careerists within CMS knew that the website would not successfully launch on time, but could not convince administration officials of the depth of the problems. Factors hampering the project included delays in ACA regulations, lack of resources, the government shutdown, and the complexity of coordinating 55 different contractors (Pear, La Franiere, & Austen, 10/13/2013). As the finger pointing continued, contractors began to point to

CMS saying that they had done their part, but late changes by the agency and other contractors caused problems (Pear, 10/24/2013).

There were also rumors that CMS Administrator, Marilyn Tavenner, was excluded from many of the decisions regarding ACA implementation as the Obama team held firm inside control of the issue. But an agency spokeswoman said that the agency took responsibility for problems with the website. The *New York Times* also listed specific subordinates of Ms. Tavenner's as people responsible for the failures, including Michelle Snyder, the agency's chief operating officer, and Henry Chao, the head of the technology team (Stolberg, 10/29/2013). Emails emerged between the officials and contractors indicating that they knew there was a problem (Pear, 11/6/2013; Lipton, 11/16/2013). However, Mr. Chao, the deputy chief information officer at CMS said in congressional testimony that he was surprised that he had not been informed of security problems with the site identified by one of the contractors (Pear, 11/12/2013).

Questions about CMS management were front and center. Lipton (11/16/2013) quotes one CMS employee as saying that, "This is internal infighting and reflects the lack of a strong, single manager at C.M.S. to drive the program" The project had been left to Mr. Chao who had been with the agency for 19 years, had little power, and was not a software engineer (Lipton, Austen, & La Franiere, 11/23/2013).

Slow enrollments also plagued the administration. During the first month of open enrollment, only 106,000 people signed up (Stolberg & Craig, 11/14/2013). The administration needed seven million enrollees by the end of the enrollment period for the program to be successful in their eyes. After a slow start up and the website debacle, the administration began delaying deadlines for people to sign up (Pear & Shear, 11/23/2013). In early December, as the

website began to work properly, the tide began to turn for the embattled Obama team and CMS. The number of enrollees was starting to climb (Alvarez & Preston, 12/10/2013). By mid-March 2014, enrollment was over 4 million, but still below administration goals (Pear, 3/12/2014). President Obama campaigned heavily among young people encouraging them to sign up before the March 31st deadline. By the deadline, over six million people had signed up for health insurance through the healthcare.gov website (Pear, 4/1/2014).

At least two careerists left CMS after the fumbled implementation of the ACA. The agency's chief information officer, Tony Trenkle, left in November 2013 for a position in the private sector (Pear, 12/31/2013). Michelle Snyder, the chief operating officer, chose to retire in December 2013 after she was blamed for part of the ACA problems in the press and congressional hearings (Pear, 12/31/2013). Finally, Gary M. Cohen, an appointee at the head of the health insurance marketplace resigned in March of 2014 (Pear, 3/7/2014).

Measuring the Stability-Turbulence Factor in CMS's Political Environment

CMS's budget has grown substantially from 2005 to 2012 with a 57.8 percent increase overall. As shown in Table 11, the CMS budget ranged from a low of \$484.9 billion in 2005 to \$773.8 billion in 2011. The largest year-over-year growth was in 2006 at 20.86 percent when Medicare prescription drug coverage began. The greatest year-over-year decrease was 4.80 percent the following year. Also of note, CMS's budget grew substantially in 2008 and 2009 with 10.97 percent and 18.87 percent increases, respectively. Other years show more modest gains and losses. It is important to note that the bulk of the CMS budget is funded through entitlement funding, limiting Congress' ability to alter overall agency budget. While one could interpret the large increase in 2006 as attributable to the prescription drug program and increases in 2008 and 2009 to support from the Obama administration, it is difficult to know the cause,

given that most of the agency's funding comes from entitlements. Because of this, I am less confident in using the budget as a measure of CMS's political attention by Congress or the President.

One sees in Table 12 that the number of full-time employees at CMS was a more stable measure for the agency than budget. CMS had between 4,647 FTEs (in both 2007 and 2008) and 5,400 FTEs in 2012. The overall change from 2005 to 2012 was 13.73 percent. Year-over-year changes were all between -3.31 percent (2007) and 5.11 percent (2005) with the exception of 2011 when there was a 10.02 percent increase in staff to build up for implementing the ACA. While fairly flat overall, the 2011 increase shows that the president and OMB recognized the increased demands from the ACA and supported long-term growth in the agency.

As a measure of agency activity, federal register documents also reflect an increase with the implementation of the ACA as depicted in Table 18. The ACA required a series of new regulations. The least number of federal register documents from CMS was 70 in 2008 showing low activity in a presidential election year, and the greatest number was in 2012 with 99 reflecting ACA regulatory activity. The period began with 85 federal documents at the same time that regulations were written to implement Medicare prescription drug coverage. Numbers then hovered in the 70s for 2006 through 2010 and spiked from 78 in 2010 to 96 in 2011. As with the number of FTEs, federal register document increases correspond with ACA implementation suggesting a large volume of activity for careerists with pressure to meet deadlines.

Congressional testimony related to CMS and bills introduced that reference CMS show an interesting point of timing. Both the bills introduced and testimony increased over prior sessions in 2005-2006 and 2007-2008. However, the number of bills introduced in 2009-2010

spiked to 72 from 56 in the 2007-2008 session and the amount of testimony dropped from 142 in 2007-2008 to 100 in 2009-2010. The reverse is true when moving from the 2009-2010 session to the 2011-2012 session. In this case, testimony increases from 100 cases of testimony to 120 and legislative activity drops from 72 to 33. This indicates active legislative activity on the ACA in 2009-2010 followed by testimony regarding the statute in 2011-2012. Tables 15 and 16 show that the range of testimony was 100 to 142 with an average of 123.5 and the range of bills introduced was 33 to 72, averaging 51.5. Note that CMS is the only agency in the study where congressional testimony and bills reflects exclusive congressional attention to the agency rather than the routine business of Congress.

Presidential measures show a mixed political picture for CMS. Presidential documents referred to CMS the fewest times of the four agencies in this study with an average of 1.67 times per year and a range of only 0 to 3 times per year (see Table 19). Noting that while these numbers are low, CMS programs are mentioned in the State of the Union Address every year in this study. The other measure of presidential attention, the appointee-careerist ratio, has the highest ratios in this study at 0.22 percent in 2008 and 0.33 percent in 2012 as illustrated in Table 14. Note that there was a 50 percent increase in the appointee-careerist ratio from the end of the Bush administration to the end of President Obama's first term, where the raw number of appointees moved from 10 in 2008 to 18 in 2012. This shows that the Obama administration wanted to exert more executive influence and control over the agency to change the internal dynamics in which careerists operate.

I use two measures of CMS coverage in the *New York Times*. The first counts articles that directly mention the agency and the second includes articles that mention either Medicare or Medicaid. The first, more narrow measure ranges from 31 articles in 2009 to 98 articles in 2013.

The movement of narrow CMS annual articles shows highs in 2005 (79 articles) and 2006 (76 articles) related to implementing prescription drug coverage and another high in 2013 with implementation of the ACA (98 articles). The lowest amounts of coverage happened in 2008 and 2009 with 32 and 31 articles respectively. As illustrated in Table 13, the average number of articles was 58 per year.

The second, more inclusive approach to measuring *New York Times* coverage shows a less clear picture, and much greater volume as Table 13 shows the annual average as 973 articles. Remember that these articles include articles about state Medicaid programs, and articles characterizing individuals as Medicare or Medicaid recipients often capturing stories about New York, New Jersey, and Connecticut state programs and people. While there is still a low in 2008 (628 articles), while the high is in 2011 (1195 articles). Two years had lower counts (2007 at 773 and 2008 at 628), but all other years had between 903 and 1195 articles indicating intense media coverage and thus a potential unstable and stressful environment for careerists.

Overall, measures of the political environment of CMS show the movement of the ACA through the stages of the policy process. What starts as bills being introduced in 2009 and 2010, moves to congressional testimony in 2011 and 2012. As implementation efforts pick up, FTEs increase in 2011, federal register documents (primarily ACA regulations) increase in 2012, and presidential and press coverage increases in 2013 as the agency struggles with implementation. Throughout the process, careerists are under pressure to implement the ACA by creating regulations and systems, then ensuring that those systems operate correctly; all of this with the eyes of the nation focused on their success or failure. Thus, CMS environment appears turbulent, it's work controversial, and evincing all the characteristics of what Wilson (1989) calls a coping agency.

The Food and Drug Administration (FDA)

The FDA has multiple key duties: to regulate the food and drug industry, approve new drugs, withdraw dangerous products, and conduct enforcement. The agency generates regulations based on specific orders through statutes or under existing authority when an issue arises. Given that it is virtually impossible to know the best way to regulate an industry, FDA is consistently criticized as either generating too many regulations or failing to protect the public when there is a negative event. It is rare to hear that the FDA has put the proper protections in place. It is also impossible to know how the world would look with either no FDA action or different FDA action, creating a losing situation where the agency outcomes cannot be assessed and routine outputs are difficult to measure, again characteristics of a coping agency.

Agency History

Early Movement Toward Product Regulation

The industrial revolution moved people to cities, and in the process, disconnected them from food production and facilitated the moving of more goods across state lines. People no longer knew what was in their food and tainted products could impact larger bands of people. Chemistry was also the new science of the day. Scientists had developed products to preserve foods, or at least mask the smell of rotting foods, and products that served as filler to reduce the price of foods. At the same time, “medicine men” traveled across the country peddling elixirs and serums that promised to cure any variety of ailments. These drugs had no regulations at all and often were addictive and dangerous, containing as many did ingredients such as opium, heroin, cocaine, and morphine. (Hilts, 2003; fda.gov)

The earliest forbearer of today’s Food and Drug Administration (FDA) is traceable to the 1862 creation of the Bureau of Chemistry, where scientists began analyzing samples of foods.

As the science progressed, the Bureau of Chemistry examined chemical preservatives in foods and identified adulteration (Janssen, fda.gov). By the 1870s, public concern over the quality of food sparked the Pure Foods Movement. Industry recognized that unethical producers sacrificing quality by doctoring rotting food and using fillers to increase volume gained an unfair competitive advantage (Janssen, fda.gov).

In 1883, Dr. Harvey W. Wiley, nicknamed the “Crusading Chemist”, became the chief chemist in the Bureau of Chemistry and expanded the bureau’s food adulteration studies (Janssen, fda.gov). To show the dangers of chemical preservatives, Wiley conducted the “poison squad” experiments from 1902 to 1907, where otherwise healthy young men were fed food containing large amounts of one preservative at every meal for weeks at a time and documented the negative effects on their health. Dr. Wiley also actively lobbied for a “pure food” law. He worked to increase public awareness by collaborating with progressive era women’s groups and encouraged “muckraking” journalists to publish stories of food and drug related atrocities (Janssen, fda.gov; Swann, 2003).

The movement toward regulating foods and drugs began to see some victories in 1902 with the passing of the Biologics Control Act that required the safety and purity of products used to treat or prevent disease in humans. After continued efforts to garner public support for new food and drug laws, a chapter in Upton Sinclair’s book (1906), *The Jungle*, documenting conditions in the meatpacking industry gave the final push toward Congress passing a comprehensive law. In 1906, the Food and Drugs Act was signed, prohibiting interstate commerce of misbranded and adulterated foods, beverages, and drugs. The federal government began taking an increased regulatory role where this was previously conducted at the state level (Janssen; Swann, 2003).

As the Bureau of Chemistry grew, it reorganized to break regulatory functions away from other research, creating as its regulatory branch what is now the Food and Drug Administration (FDA). The FDA found that the original Food and Drug Act of 1906 was insufficient to protect public health. From 1933 to 1938, the FDA worked with the White House and Congress to revise the act. After a contentious political fight, the accidental poisoning death of 107 people (many were children) after taking Elixir of Sulfanilamide in 1937 spurred the political momentum to pass the Federal Food, Drug, and Cosmetic Act of 1938 (FDC). The new act allowed FDA to regulate cosmetics and devices, required that drugs are proven safe before marketing, set tolerance levels for poisonous substances, authorized standards for foods, and allowed factory inspections. (Swann, 2003)

New Drug Approvals Explode, FDA's Role Expands, and FDA gets Backlogged

After the 1938 FDC act, the FDA moved out of the Department of Agriculture to become part of the Federal Security Agency, which was the predecessor of the Department of Health, Education, and Welfare (est. 1953). The workload of FDA grew exponentially as science after World War II opened the doors to new medical advances (including antibiotics), and Congress continued to pass amendments to the FDC increasing the FDA's role and responsibilities. The FDA budget, however, remained at the 1938 level, while the workload increased until actions taken in 1955 (Janssen). At the same time, industry pressured the agency to push products to the market with little review. Many FDA scientists felt pressure to get products to the market quickly, often at the expense of public safety (fda.gov; Hilts, 2003).

Thalidomide and the movement back to consumer protection

In 1962, an era of strong industry push to approve drugs quickly, Dr. Frances Kelsey, a mid-level careerist, refused to approve Thalidomide. Thalidomide was used in Europe as a

sleeping aid and to help pregnant women with morning sickness. Across Europe, thousands of women had miscarriages and babies were born with severe disabilities. Dr. Kelsey was credited with preventing lost lives and disabilities, and the public began supporting stronger FDA regulation. This movement resulted in the Kefauver-Harris Drug Amendments that required more stringent safety standards for drugs and placed the burden of proving a drug safe and effective on industry rather than government (fda.gov; Hilts, 2003). Over the next decade, FDA's responsibilities continued to grow. However, Congress also placed restraints on the agency. The 1976 Vitamins and Minerals Amendments prevented FDA from establishing potency standards for dietary supplements and prevented FDA from regulating supplements as drugs regardless of their potency. (Janssen, fda.gov)

Need for faster approvals

The 1980s brought on a shift in public demands on FDA again. After the agency prevented Thalidomide from widely hitting the U.S. market, years of increased responsibilities and the desire to protect the public through meticulously careful drug approval processes led to a backlog of new drug approvals. At the same time, President Reagan voiced objections to big government and its perceived inefficiency, with a special focus on gaining regulatory relief for drug approvals to speed them up. FDA's backlogged approvals raised concerns about whether patients received new treatments quickly enough (Woodcock & Junod fda.gov).

Discussions of how to reduce the backlog of approvals became more serious as AIDS emerged as a public health threat during the Reagan years. The arrival of AIDS as a rapidly spreading health crisis placed pressure on the FDA to move products to market more quickly. While not a new idea, the conversation about offering industry user fees so that the agency could hire more employees to work on drug approvals began in earnest. After pressure by industry and

consumer groups to get therapies into the marketplace quickly, Congress passed the Prescription Drug User Fee Act (PDUFA)(1992) requiring pharmaceutical companies to pay fees for new drug approval and maintaining a drug in the marketplace.

Then in 1997, the Food and Drug Administration Modernization Act reauthorized PDUFA and required vast reforms in the agency. These included regulating unapproved uses of approved drugs and devices (off-label use), regulating health claims for foods, and speeding the review of devices. The Medical Device User Fee and Modernization Act of 2002 then established a user fee program similar to PDUFA for medical devices (Woodcock & Junod fda.gov).

The political importance of FDA was also acknowledged in 1988 when the Food and Drug Administration Act established FDA as an agency of the Department of Health and Human Services where the commissioner is a presidential appointee with Senate approval. The agency continued to take on a more active regulatory role. In the area of foods, the Nutrition Labeling and Education Act (1992) required nutrition labels on foods and defined health claims like “low fat” Likewise, the Dietary Supplement Health and Education Act (1994) defined dietary supplements as foods rather than drugs, thus allowing for FDA to develop a regulatory framework with labeling requirements and good manufacturing practices. More recently, the Food Allergy Labeling and Consumer Protection Act (2004) required labeling on foods that include a number of common allergens (fda.gov).

Major Issues 2005 to Present

Taking on Tobacco

The FDA worked for years to determine if there was a way to regulate tobacco products under existing FDA authorization. In 1995, the FDA took a novel approach declaring that

cigarettes were “drug delivery devices” and moved to regulate their marketing and sales. The agency created rules banning the sale of tobacco to minors. After challenges by the tobacco industry, the Supreme Court ruled that FDA did not have the authority to regulate tobacco products (nicotine) as a drug because tobacco companies did not advertise tobacco as having any therapeutic benefits. Anti-smoking groups and the agency continued to try to convince Congress to pass legislation that explicitly gave FDA the authority to regulate tobacco products. In 2009, the Family Smoking Prevention and Tobacco Control Act gave FDA some authority to regulate tobacco. FDA established the Center for Tobacco Products. The center banned flavored cigarettes designed for teens or new smokers, required warning labels, and enforced promotional and advertising restrictions (fda.gov).

Plan B Contraceptive Approval

The FDA had delayed approval of the highly controversial over-the-counter Plan B contraceptive in 2005. The drug sparked the political world because prolife and prochoice groups interpreted the drug as either abortion or pregnancy prevention depending on definitions of the beginning of life or pregnancy. While there was no scientific reason to delay approval, conservatives asserted that the drug would promote risky sexual behavior. Delays in Plan B approval became tied to President Bush’s nominee for FDA Commissioner, Dr. Lester M. Crawford, holding up the nomination for months (Harris 7/14/2005).

Dr. Crawford resigned less than two months after his appointment under the shadow of separate accusations and later convictions for conflicts of interest and false reporting on stocks he owned that produced products regulated by FDA. During the debate, Dr. Susan Wood resigned from her position as assistant FDA Commissioner over Plan B pill says that she was

leaving because, “...scientific and clinical evidence, fully evaluated and recommended for approval by the professional staff here, has been overruled” (Harris, 9/1/2005).

The political controversy continued into the next nomination debate over Dr. von Eschenbach in August 2006. The nomination was confirmed when Dr. von Eschenbach committed to the agency making a quick decision (Zernike, 8/2/2006). By November of 2006, the *New York Times* reported that the Bush Administration wanted the drug application rejected and that 1) some high level careerists had refused to sign a rejection letter, 2) upper-level management had intervened more in this case than in others, 3) some reported that they had been told the drug would be rejected before the review process was complete, and 4) the grounds for rejecting the drug (promoting risky behavior among youth) had never been used before (NYT 11/15/2005).

In 2011, Plan B was still politically contentious. After President Obama pledged to put science ahead of politics, President Obama supported HHS Secretary Sebelius’ decision to overrule the FDA’s decision to make Plan B available to the entire population. Instead, the Obama administration limited availability to women over 17 years old (Calmes and Harris, 12/9/2011). In 2013, the age limit was reduced to 15, and then in May 2013 a district court ruled that the age limit was invalid because it was not based in science (Shear, 6/12/2013).

Detecting Dangers in Drugs and Devices

After ten drugs were recalled after causing deaths and injuries between 2000 and 2006, Congress, the media, and the public began to question whether FDA was fulfilling its mission of protecting public health. In 2006, the General Accounting Office conducted an audit of the drug approval process and found that the advice of agency drug safety specialists was lost or ignored by senior agency management, agency processes were inadequate, and the agency’s funding for

researching drugs was strikingly low (Harris, 4/24/2006). More specifically, the GAO found that there were “defects in FDA procedures, including bureaucratic infighting, disorganization, and a lack of criteria for deciding what safety actions to take and when to take them” (NYT 4/25/2006).

In the wake of the GAO report, problems with the diabetes drug Avandia emerged in 2007. A drug safety specialist in 2006 had recommended that Avandia receive the highest level of warning due to safety concerns. Instead, her recommendations were ignored and she felt that she was actively punished for her recommendation. By 2007, the agency decided to follow her recommendation, but she had already resigned (Harris, 7/27/2007). Harris (9/25/2010) reported that the Avandia case exemplified agency changes under the new Obama administration versus President Bush’s administration. Where previously, decisions were black and white and unanimous, the Obama team sought a middle ground for product approvals by offering heavy restrictions on use and distribution rather than the traditional approval or rejection.

In 2011 attention shifted to medical devices. While the products changed, the same criticisms of inadequately protecting public health emerged (Meier, 7/30/2011). As momentum built, the Senate recognized the device approval process was less stringent than the drug approval process and proposed legislation to strengthen the device review process (NYT 4/29/2012). These examples are indicative of the pendulum swing that is inherent in FDA’s role of balancing industry desire for fast approvals and the public’s reliance on the agency to maintain strict safety standards, a key characteristic of a coping agency.

Food Borne Illness Outbreaks

While there are always cases of deaths and illnesses associated with food borne pathogens, there are times when these outbreaks are severe enough or clustered in such a way

that they draw public attention. Food safety concerns rose to this level in 2006 after e. coli in bagged spinach was linked to multiple deaths. This outbreak was quickly followed by a series of food contaminant outbreaks including bagged lettuce, and peanut butter. A 2006 article stated that part of the issue was the FDA's failing food safety program, as 3,400 annual inspections were conducted in 2006 rather than the 35,000 a year in the 1970s (Schlosser 12/11/2006). Coverage continued in 2008 and 2009 with outbreaks connected to tomatoes and peanut butter. Articles documented unsanitary conditions in food plants similar to those in the early twentieth century (see Moss 2/9/2009 for an example).

As the issue continued to persist, the new Obama administration built a team called the Food Safety Working Group to revamp food safety regulatory structure. At the same time, Congress worked to create legislation to improve oversight, including proposals to form a new food safety agency (Harris, 3/15/2009). Sweeping reforms shifting FDA's approach from inspection to prevention were signed into law in January of 2011 under the Food Safety and Modernization Act (fda.gov).

Whistleblowers

In 2009, nine FDA employees accused the head of the medical device division of pushing them to approve products against their professional judgment at the end of the Bush administration (NYT 8/12/2009). He resigned, but questions about politicization of approvals continued. The agency acknowledged that after a great deal of pressure from two Representatives and both Senators from New Jersey, then Commissioner Andrew von Eschenbach became unusually involved in the approval of a knee replacement and the approval decision was fast-tracked by reduced evidence requirements (NYT 10/3/2009).

Issues of corruption emerged again in 2012 when a contractor accidentally posted to the Internet documents showing that agency officials placed five of its scientists' emails under surveillance when they were thought to be spreading defamatory information about agency operations after years of disagreement about device approvals.

The scientists believed that some devices were exposing patients to excessive levels of radiation. The surveillance revealed letters sent to President Obama, members of Congress, and the press (Lichtblau & Scott, 7/15/2012). Congress called for an investigation. Dr. Robert C. Smith, one of the scientists placed under surveillance, was vocal about his objections to politics superseding scientific judgment in approval decisions. Within the agency, the *New York Times* quotes other careerists as viewing Smith's actions as "mutiny" and that the attention his complaints drew created "chaos" within the agency (Litchblau & Scott 7/31/2012).

Moving to the White Oak Campus

After years of dilapidated conditions in FDA's buildings and agency divisions spread around the Washington, DC area, Congress approved a plan to create a state of the art FDA headquarters in Silver Spring, Maryland known as the White Oak Campus. Construction began in 2000 and employees began moving onto the campus in 2003 with full completion scheduled for 2016 (www.fda.gov). During this time, FDA employees have balanced their happiness with the new facility with difficulties that it caused. For example, employees who based housing choices on commute times complain that White Oak does not have realistic public transportation from their neighborhoods. To make the problem worse, Congress authorized the construction of office and laboratory buildings, but not for some parking garages. FDA copes with this by asking some employees to telework two days a week and is considering other options such as

valet parking so that more cars fit into the existing parking space (Interviews 10/16/2013 & 1/17/2014).

Measuring the Stability-Turbulence Factor in FDA's Political Environment

After fairly stable budgets, FTEs, and federal register publications in 2004-2007, the FDA shows a marked uptick in 2008 that continues to grow through 2012. In the last days of the Bush administration, Commissioner Eschenbach broke ranks with the administration and went directly to Congress asking for more funding than the amount submitted in the President's budget. At the time, there was bipartisan belief that FDA needed to conduct more inspections of US and international food and drug facilities (Harris 5/14/2008). From this point forward, FDA received increases in its budget and FTE allotments. Overall, as Tables 11 and 12 illustrate, FDA's budget ranged from \$1.45 billion to \$2.60 billion and FTEs moved from 9,663 to 13,538. This increase also coincides with the Obama administration, perhaps indicating more support for FDA's regulatory role and programs in general.

These numbers are consistent with the story of the role of partisanship described by an interviewee in a highly politicized agency, "When the Republicans were in they said, 'It's not that we are going to cut that, we are not going to invest in that right now and leave it in a steady state'. When the Democrats came in they said, 'Alright that thing that got neglected for eight years, we need to put a lot of reinvestment into there. Let's look at doing some things out here'" (Interview 4/3/2014).

However, growth was not consistent. For example, federal register documents remained in a steady range of 846 to 903 for five of the eight years from 2004-2012. Document totals were higher in 2009 (1029), 2010 (1052), and 2012 (973) reflecting FDA's regulation of tobacco products and regulations stemming from the Food Safety and Modernization Act. The average

annual number of federal register documents as shown in Table 18 was 936.63. This indicates that movement in the volume of agency work as measured by federal register documents increased after new statutes were passed. Therefore, the workflow within the agency is contingent on political actions. Employees will experience times when their work volume is substantially larger based on statutory requirements and deadlines. At other times, careerists can focus more on existing programs and requirements. This lends to concepts of agency stability where movements off of a baseline may cause stress and disruptions.

FTEs, FDA's budget without user fees, and FDA's budget including user fees all show substantial growth from 2005 to 2012. FTEs had minor declines (1-2 percent) from 2005 to 2007, and then steady annual increases so that the overall increase from 2005 to 2012 was 35.5 percent (see Table 12). While growth from 2005 through 2007 was more modest, the budget excluding user fees rose every year except for 2011 for an overall increase of 77.4 percent (see Table 11). Growing at an even more rapid rate, the budget including user fees grew every year totaling a 112.8 percent increase from 2005 to 2012. Paired with the relatively flat growth in federal register documents, this creates a picture of increased workloads for staff and growth based on product approvals and surveillance rather than increased regulatory activity. But increased funding indicates less strain on employees, as well as perhaps more satisfaction because of funding consistent with how they view the agency's mission.

Other measures of congressional attention are the quantity of testimony referring to the FDA and the number of bills that include FDA. Both show a peak of attention in the 2007-2008 session that then diminishes in both the 2009-2010 and 2011-2012 sessions. Tables 15 and 16 show the average amount of testimony at 221 per year and bills averaged 339 per year. Because this pattern is consistent with NIH and CDC, the measures are probably more indicative of

overall congressional activity than FDA specific issues reflecting Congress' focus on the ACA, budget, and debt ceiling with few other major policy debates.

Measures of the executive branch attention include the ratio of appointees to careerists, FDA mentions in presidential documents, and mentions in the State of the Union. The number of appointees at the end of President Obama's first administration had increased to five instead of the four at the end of the Bush administration, but the ratio of appointees to careerists had decreased because of substantial increases in the number of agency careerists. As illustrated in Table 14, the ratio went from 0.0388 in 2008 to 0.0369 in 2012. The number of FDA mentions in presidential documents as shown in Table 19 was between zero and four for all years except for 2009 when presidential attention jumped to nine documents regarding FDA. This corresponds to President Obama's first year in office and FDA regulation of tobacco. The FDA and its programs were never mentioned in the State of the Union Address.

One sees in Table 13 that FDA received the highest level of press coverage directly of the four agencies in this study, with an average of 527 articles per year¹. Unlike other measures of the political environment, however, press attention diminished from 2005 to 2012. The peak was 736 articles in 2005 and the low was 377 articles in 2012. As much of the press attention is on product approvals and safety concerns linked with business reports on company/stock valuations, early years may have higher numbers of articles due to concern over product recalls such as Avandia as discussed in the issues section above. FDA press coverage spends more time on business concerns and public safety alarms than more ideological questions such as the Plan-B debate.

¹ References for CMS including those that refer to "Medicare" or "Medicaid" without specifically mentioning the agency are higher, but those searches capture state programs and articles that use the terms descriptively such as referring to someone as a "Medicaid recipient."

FDA's history points to a story of balancing between the interests of business and public safety, the typical problem of coping agencies. In the essence of FDA's activities is the underlying dilemma of balancing government's role in regulating products and supporting business innovation. This balancing act appears from the agency's inception to the present.

This also sparks conversations about the ideological preferences for government intervention. While staff at FDA expressed in interviews that they did not think that political support was ideologically driven, two measures of the political environment show a different picture. Both the budget and FTEs were higher under the Obama administration than during the Bush administration. However, Congressional attention diminished at the same time, and federal register activity moved consistent with implementation of new legislation (noting that the two major pieces of legislation – tobacco regulation and food safety reforms – both happened under the Obama administration). Interestingly, *New York Times* coverage, while still extremely high compared to other agencies, declined overall.

The National Institutes of Health (NIH)

NIH as a research agency and provider of grant money is challenged to show outputs, but better able to demonstrate outcomes, suggesting that it might be what Wilson called a craft agency. Scientific research done both in house (approximately 10 percent of NIH's budget) and through grant funding (approximately 80 percent of NIH's budget) does not necessarily produce immediately usable findings. Often a line of inquiry will lead to a dead end. Yet when research is successful, NIH outcomes can be dramatic. Moreover output measurements such as quantity of new drug patents are not accurate reflections of the amount of work done at a particular point in time; research may produce a plethora of findings in one year and very few in the next.

An example of NIH outcome success is the Human Genome Project, where the mapping of the genome now gives researchers the ability to generate drugs that target specific genes. This is expected to drastically change the pharmaceutical industry and allow innovations that will save and/or improve lives where today treatment is limited. However, it also shows how the outcomes may come far in the future; this research began in 1990 and did not produce its final product until 2003, requiring the agency to maintain political support for 13 years with very few short-term outputs. On this basis, NIH seems more classifiable as a craft agency.

NIH History

The NIH traces its roots to the beginnings of the public health service with the establishment of the Maritime Hospital Service in 1798 for merchant seamen and members of the U.S. Navy (added in 1799). As cholera and yellow fever spread through Europe in 1870s, the U.S. government became concerned about how to prevent outbreaks from entering the country. The existing structure of the Maritime Hospital Service presented an opportunity to extend its role to preventing sick individuals arriving on ships from entering U.S. ports. In 1878, Congress passed the first Federal Quarantine Act. The act provided funds to the U.S. Maritime Hospital Service for “investigating the origin and causes of epidemic diseases, especially yellow fever and cholera” (nih.gov). Within a few months of the passage of the Federal Quarantine Act, an agency doctor, Joseph Kinyoun, identified the cholera bacillus. This allowed the Maritime Hospital Service to scientifically confirm their clinical diagnoses of cholera carried by people they detained at ports (nih.gov).

By 1891, the “Hygienic Laboratory” developed by Dr. Kinyoun was moved to Washington. As microbiology continued to evolve and provide important information for preventing the transmission of communicable illnesses, Congress recognized the importance of

supporting biological research. Considered the first authorizing legislation for the NIH, Congress authorized \$35,000 for the construction of a laboratory to investigate “infectious and contagious diseases and matters pertaining to public health” (nih.gov).

The next year, Congress passed two acts that were critical to NIH’s development. The first reorganized the Maritime Health Service into the Public Health and Maritime Hospital Service propelling it to becoming the primary U.S. public health agency. Under this reorganization, the Hygiene Laboratory formed four formal research divisions; the existing Division of Pathology and Bacteriology, and the divisions of Chemistry, Zoology, and Pharmacology. Under these formal research organizations, staffing was extended to include Ph.D. scientists as well as physicians. The second important piece of legislation from 1902 was the Biologics Control Act. The act gave the Hygiene Laboratory the job of regulating vaccinations and antitoxins. This role was later shifted to the FDA under the 1906 Food and Drugs Act (Harden 1998, p.410).

In 1912, the Public Health and Maritime Hospital System was reorganized again to become the Public Health Service (PHS). For the first time, the agency was authorized to extend its research to non-contagious diseases and environmental pollution in U.S. waterways. During World War I, the PHS took on an epidemiological role in identifying sources of illness in soldiers, and maintaining sanitation on U.S. military bases. The PHS maintained both a research and clinical role in the 1918 flu pandemic where many researchers shifted to clinical work when the Washington, DC area had a shortage of doctors because many had contracted the deadly flu themselves (Harden 1998, p.411).

Around this time, a group of scientists began looking for private sector patrons to fund basic scientific research thought to be the building blocks necessary for developing medical

treatments and approaches to prevention. When no private patron emerged to provide scientific funding, Sen. Ransdell of Louisiana stepped in. The Ransdell Act was enacted in 1930 changing the PHS Hygiene Laboratory into the National Institute of Health (NIH). Under the Ransdell Act, the federal government provided fellowships for biological and medical research. The National Cancer Institute (NCI) was created in 1937 with unanimous support from Congress. As with the NIH, the NCI gave fellowships for scientific research. Additionally, the NCI was authorized to distribute grants for research (Harden 1998, p.411).

The advent of World War II shifted the NIH's efforts to research needed to support the war effort. NIH scientists worked to understand why 43 percent of potential war recruits were rejected from general military service and 23 percent were unfit for any service (primarily poor dental conditions and syphilis). Tests were also developed to measure levels of toxins in workers who dealt with hazardous materials such as lead and TNT. NIH developed vaccines against tropical diseases threatening soldiers such as typhus and yellow fever, discovered that administering saline significantly reduced deaths after burns and traumas, and determined safe flying altitudes for pilots (Harden 1998, p.411).

The 1944 PHS Act also extended the grant making ability of NCI to all of NIH. This marked the beginning of a period of rapid growth at NIH, wherein it moved from being a solitary institute to having ten institutes by 1960, 15 by 1970, and 27 institutes and centers today. The ability to give grants meant that advocates and researchers interested in specific disease groups could fight for specific institutes and reliable government funding streams. Heavy funding of medical research by the federal government also altered university structures so that scientific academics needed to bring in grant money to support university research and personnel costs (Harden 1998, p.412),

NIH's rapid growth began to slow in the late 1960s as competition for health related resources within the federal government grew. The onset of Medicare and Medicaid marked the first time that NIH had to vie for federal healthcare dollars. At the same time, the number of scientists competing for NIH grants continued to grow making it more difficult to secure NIH funding for projects (Harden 1998, p.412).

NIH's role as a bridge between research and clinical care continued as well. In 1953, a 540-bed hospital was opened on the NIH's main campus. Another key component of the NIH is the National Library of Medicine (NLM). In 1836, the precursor of today's National Library of Medicine began as the Library of the Office of the Surgeon General of the Army. The library officially became a part of the NIH in 1968 and is the world's largest medical library (nih.gov).

While the NIH has generally received a great deal of political support, it is not without controversy. President Reagan proposed cutting NIH's research budget only to be opposed by Congress, which then restored much of the funding. These political battles in the 1980s were paired with a slow federal response to AIDS. While AIDS had been identified by 1981 as an emerging epidemic, NIH did not make a significant contribution to the research until 1984 when it identified the viral basis that was a precursor to AIDS. President Reagan did not make a formal commitment to NIH HIV/AIDS research until 1987.

Another politically divisive topic at the NIH was President George W. Bush's 2001 ban on federally funded embryonic stem-cell research. Stem-cell research was thought to offer groundbreaking possibilities to developing therapies for a variety of diseases including cancer. At the same time, stem cell research invoked questions on when life actually begins and the ethics of the possible creation and/or use of embryonic stem cells, placing NIH funded research in the center of a pro-choice/pro-life debate.

The NIH boasts a long list of scientific accomplishments including over 80 Nobel Prizes from NIH supported research, mapping the human genome, and countless other medical developments that have changed and saved lives. This history of achievements has earned the NIH a privileged relationship with the political world. The NIH works to maintain its reputation for excellence and must continuously reiterate its success and foster political support for research that may take years before results are apparent (Harden 1998, p.413). But as in the cases of the other agencies, it has faced major issues during the period of this study.

Major Issues 2005 to Present

Stem Cells

President Bush's 2001 ban on embryonic stem cell research continued to be an issue throughout his presidency and into President Obama's. President Bush's position pleased members of the Christian Right Wing as embryonic stem cell research became equated with abortion debates and frustrated scientists as it limited their work (Belluck, 6/2/2005). As one of the premier scientific health research organizations in the world, the policy directly impacted the NIH. In congressional testimony in April 2005, the then director of the NIH, Dr. Zerhouni stated that the ban on embryonic stem cell research limited scientific advancement, but he also recognized the moral questions involved and did not advocate a policy change. Scientists within the agency were plagued by the politicization of what they viewed as a scientific question (Stolberg, 4/7/2005).

In 2009 when President Obama took office, he quickly revoked President Bush's ban on embryonic stem cell research through an executive order as an attempt to fulfill a campaign promise to clearly separate science from politics (Stout & Gardiner 3/7/2009). However, President Obama attempted to take a moderate approach by only partially lifting the ban. This

approach failed to satisfy people on either side of the embryonic stem cell research debate (Harris, 4/18/2009).

By 2010, the courts stepped into the issue placing a temporary stop on President Obama's executive order thus reinstating President Bush's ban on embryonic stem cell research (Harris, 8/24/2010). The basis of the argument against President Obama's executive order was a 1996 law stating that taxpayer dollars cannot be used in work that harms embryos (Associated Press in NYT 8/25/2012). The ruling jeopardized \$54 million of funding going to 32 different projects (Stolberg & Harris, 8/25/2010). Stolberg & Harris (2010) also noted that positions on embryonic stem cell research were likely issues in some congressional primary races where more conservative candidates challenged moderate Republicans. Within a few weeks of the court intervention, a Justice Department appeal to the U.S. Appeals court resulted in courts allowing the research to continue, but requiring that the courts hear the case (Harris 9/10/2010). In August of 2012, the U.S. Court of Appeals refused to overrule President Obama's executive order allowing NIH to fund research using certain embryonic stem cells.

Cancer Genome Atlas Project

Building on NIH's success in mapping the human genome, the agency launched a program in 2006 to similarly map cancer genomes. The original human genome project required significant funding for research from 1990 to its completion in 2003. Mapping cancer genomes was thought to be the next great scientific contribution from NIH, but the complexity of mapping cancer genomes was far more extensive than mapping the human genome, equating to 12,500 times the sequencing involved in the human genome project (Pollack, NYT 3/28/2005). As a result, the project began as a three-year trial focusing on specific types of cells to target efforts. The initial three-year pilot program was estimated to cost \$100 million and projections for a

nine-year program were \$1.35 billion (Pollack, 12/14/2005). After the initial three-year phase, NIH used \$275 in Recovery Act funding to continue to support the program and the project continues today.

(http://cancergenome.nih.gov/newsevents/newsannouncements/news_9_30_2009)

Brain Research through Advancing Innovative Neurotechnologies (BRAIN)

The most recent effort to leverage NIH's success in mapping the human genome and ongoing successes in mapping cancer genomes is a new initiative to map the neural pathways in the human brain. In his 2013 State of the Union Address, President Obama cited NIH research as an important investment. He said, "Every dollar we invested to map the human genome returned \$140 to our economy -- every dollar." He then continued, "Today our scientists are mapping the human brain to unlock the answers to Alzheimer's. They're developing drugs to regenerate damaged organs, devising new materials to make batteries 10 times more powerful. Now is not the time to gut these job-creating investments in science and innovation" (President Obama, State of the Union 2013).

By February of 2013, the New York Times was reporting that NIH would begin a brain mapping project that later became known as the *BRAIN Project* (Markoff, NYT 2/18/2013). The project was formally announced in April of 2013. An advisory committee was formed to recommend high priority areas of research and generate a multi-year plan articulating goals, timelines, and budgets. The NIH will spend \$40 million on this project in 2014.

(<http://www.nih.gov/science/brain/how.htm>).

Consulting

For all of the NIH's scientific advances, the agency did confront a controversy related to agency employees also receiving funding from the private sector through consulting. In a series

of *Los Angeles Times* articles in 2004, it was revealed that numerous scientists and upper-level officials were legally (but not always ethically) receiving outside funding. At the time, NIH's director, Dr. Zerhouni noted that only 369 of the over 6,000 agency scientists received funding, and of those who did, 80 percent earned less than \$5,000 (Harris, 2/1/2005). However, there were cases that presented a clear conflict of interest and threatened the agency's credibility.

Immediately after the scandal emerged, Dr. Zerhouni objected to a ban on outside consulting because he believed that the best scientists would leave if they were limited to their government salaries alone. But when it became clear that the names of NIH scientists had been used in market materials for private sector products, Dr. Zerhouni said that a ban was the only alternative. To preserve the public's trust in the agency, the NIH instituted new rules banning outside consulting with pharmaceutical and biotech companies (Harris, 2/2/2005). In December of 2006, one of the scientists who had received hundreds of thousands of dollars from Pfizer was sentenced for failing to disclose a conflict of interest and ordered to forfeit \$300,000 and participate in 400 hours of community service (NYT 12/23/2006).

Measuring the Stability-Turbulence Factor in NIH's Political Environment

With the exception of 2009, NIH's budget allocations are remarkably stable and almost flat. The budget moved from \$28,028 in 2004 to \$30,852 in 2012 showing an overall increase of 10.08 percent over the nine-year period (see Table 11). However, NIH's budget spiked in 2009 when the agency received a large influx of money from the Recovery Act that was to be spent within two years. As a grant-making and politically popular agency, NIH was an ideal avenue to quickly send stimulus funding out to the private sector.

As a funding agency, the question of NIH's overall budget must be followed with recognition that there is competition within the institutes for resources. In 2005, 758 scientists

protested through a petition President Bush's diversion of funding away from traditional medical research to support greater research on bioterrorism and biodefense (Shane 3/1/2005). The same complaint was issued in 2006 when all of NIH's institutes had budget cuts except for the Institute of Allergy and Infectious Diseases, where bird flu and bioterrorism research is housed (Pear 2/5/2006). The same *New York Times* article discussed how President Bush had expressed pride in doubling the NIH budget from 1998 to 2003, but that the NIH budget remained stagnant or diminished in the following years (Pear 2/5/2006). Jumping to 2013, the current NIH Director, Dr. Collins noted that as a result of the sequester and NIH's budget losing ground to inflation for ten years, the NIH would not fund 640 grants that would otherwise have received support (Friedman, 9/25/2013).

As illustrated in Table 12, the number of full-time employees (FTEs) was also relatively flat from 2004 through 2012. The range was from 16,880 FTEs in 2006 to 18,573 in 2011. If one looks at the change in FTEs for the entire period, there was an 8.19 percent increase in staffing from 2004 to 2012 (see Table 12). Also of note, in 2009 when NIH had to quickly distribute Recovery Act funding, the budget increased by 36.78 percent, but staffing only increased by 3.89 percent indicating that the agency had to either rely on contractors or increase to workload of existing employees to spend the stimulus funding. Interviewees from NIH recounted this as a stressful time as workloads skyrocketed and capacity/willingness to use contractors for support varied among institutes within NIH.

In the case of NIH, federal register notices often announce grants or requests for proposals. The range of annual notices as shown in Table 18 was from 1,354 in 2006 to 1,787 in 2013. The greatest single jump in federal register documents was from 2012 to 2013 (22.40 percent) possibly attributable to the BRAIN project. There was also a greater volume of federal

register documents under the Obama administration (averaging 1,590 per year) than under the Bush administration (averaging 1,401 per year), signaling increases in agency activity under the current administration.

In addition to measures of budget and FTE's, other visible measures of political attention come from congressional and presidential actions. Congressional measures of references in committee testimony and bills introduced that include NIH reflect the general trend of congressional action. Specifically, there was an uptick in activity at the end of the Bush administration that diminished slightly in 2009-2010, then sharply dropped off as Congress focused attention on the debt limit and the budget in 2011-2012. Table 15 shows the range for testimony was 168 occurrences in 2011-2012 to 288 in 2007-2008. Similarly, as seen in Table 16, bills introduced ranged from 226 in 2011-2012 to 472 in 2007-2008. As with CDC and FDA, these congressional measures appear to capture the routine business of Congress more than congressional attention specifically to NIH.

As illustrated in Table 19, presidential attention to NIH was higher than attention focused on other agencies. The range of mentions in presidential documents ranged from 2 in 2012 to 20 in 2009. In all years except 2009, there were 9 or fewer mentions. NIH was mentioned directly or indirectly in the State of the Union Address in 2005, 2006, 2008, and 2013. Internally, NIH has very few appointees with only two appointed positions in both 2008 and 2012. The ratio of appointees to careerists was 0.011 percent in 2008 and 2012 (see Table 14). In terms of presidential attention, NIH is touted by presidents in speeches and presidential documents as being a source of pride and government success, and largely left alone in terms of controlling through appointees. This is consistent with Lewis' (2008) proposition that administrations do not politicize techno-scientific agencies.

Press coverage of the NIH was stable with no discernable trend. The greatest number of articles appeared in 2005 with 310 articles and the lowest number of articles was 236 in 2008 as displayed in Table 13. The average number of annual articles was 270.56. This again lends credence to NIH not being a highly politicized agency.

Overall, measures of NIH's political environment show a stable underlying environment that is publicly mentioned at a high rate by both Congress and presidents. The two exceptions to this are the influx of Recovery Act funding in 2009 and federal register documents in 2013. Otherwise agency budget, FTEs, federal register documents, appointee-careerist ratios, and *New York Times* articles are flat. This leads me to view the agency as having a balanced workflow (although they are losing ground to inflation). On the other hand, compared to other agencies, the NIH received high levels of baseline political attention in terms of congressional testimony, bills introduced, presidential documents, and State of the Union Address mentions. However, when one explores the nature of these, they are most often praising NIH activity, or asking for their expertise – all of which are viewed as positive support.

Conclusions

Each of the four agencies presents a unique history filled with accomplishments and stresses. Some are defined by political debates, some by external events, and all by mistakes along the way. The CDC evolved from an obscure malaria control program to redefine itself as a scientific agency and steadily grow its mission and responsibilities. CMS is the youngest of the four agencies with its programmatic beginnings in 1965, but it was born out of a longstanding debate about the role of government in the care of the public and is still the center of that debate. The FDA's story is one of a regulatory agency seeking the correct balance between industry and consumer protection where the pendulum is constantly swinging from one side to the other.

Finally, the NIH has a history of widespread support for its work and is recognized by both parties as one of the preeminent scientific research institutions in the world.

All of the agencies work to maintain their legitimacy and purpose when their work draws external political attention. Some of that attention is periodic, some episodic, and some sustained over all time periods. CDC struggles to present the science of vaccine safety in an environment where some elected officials have joined in public fears about links to Autism and other side effects. CMS has gone without appointees, and seen regulations proposed and quickly pulled because of their political contentiousness. FDA and NIH both found their science placed in the middle of pro-life/pro-choice debates.

Using measures of the political environment, no single variable tells a complete picture and the variables placed together tell a fluid story (sometimes with a mixed message) of how issues rise and cycle through an agency's involvement in the stages of the policy process. The CDC has no control of when an outbreak will take place, but when it does, their substantive workload increases and demands for quick action from the public and political institutions increase as well. Suddenly, the CDC needs to deploy people to the field, media attention skyrockets, presidential and congressional attention peaks, but longer-term measures stay steady. CDC's budget, FTEs and federal register documents show a stable environment. CDC must be ready for an outside event to demand full agency resources, but otherwise operates under relatively stable conditions.

CMS has been the center of political attention for the history of the agency, but reforms to CMS programs rarely make their way through the legislative process. When they do, CMS becomes the focus of intense scrutiny over implementation questions. In both the Medicare Prescription Drug Coverage program implementation and the ACA implementation, system

breakdowns have dominated media attention. Discussions of the two programs also both began with questions about the accuracy of cost estimates and whether participation rates would be high enough for the programs to truly work. Measures of CMS's political environment show tremendous budgetary growth paired with more modest staffing growth. Jumps in political variables tell the story of the ACA where bills introduced peak in the 2009-2010 congressional session, and testimony rises in the 2011-2012 session. Federal register documents increase after the legislation in 2011 and 2012. Presidential attention moved up in 2010 and 2011, then dropped in 2012, and was followed by a large increase in 2013 with the rollout of healthcare.gov. Also of note, CMS programs and reforms are mentioned in every State of the Union Address from 2005 to today. The agency also became more politicized as the percentage of appointees in the agency moved from 0.22% in 2008 to 0.33% in 2012. Finally, press coverage took its largest leap in 2013 with the botched healthcare.gov implementation.

FDA faces a high and consistent baseline of political scrutiny. With an average of over 527 *NYT* articles a year, the FDA has daily press coverage. Interestingly, as the budget and FTE levels increased dramatically from 2005, press coverage decreased. On the other hand, measures of overt political attention including presidential documents, congressional testimony, and bills introduced. These seem to follow the same pattern as NIH and CDC perhaps indicating that those measures reflect routine congressional business rather than exclusive congressional attention to the agency.

After NIH's budget doubled from the Clinton Administration through President Bush's first term, NIH's growth leveled off from 2005 to 2012. The budget grew a modest 7.72 percent and FTEs similarly grew only 9.57 percent. However, in 2009, NIH's grant-making capacity positioned the agency to quickly distribute stimulus funding to the research community. In one

year, NIH's budget jumped by almost 37 percent and then returned to regular funding levels the next year. As with CDC and FDA, measures of NIH's overt political attention through testimony, bills, and presidential documents seem to reflect the broader political environment rather than agency specifics.

All of the agencies are subject to large increases in workflow, but the predictability and sources of those increases vary. Two examples are CDC in having to prepare for unanticipated acts of nature and CMS in reacting to acts of Congress. Agency political environments cannot be boiled down to one quantitative measure but when interpreted together with an understanding of agency issues, create a clear picture of differing agency dynamics and their unique political environments.

As such, the history of these four agencies and the dynamics accompanying them suggest that typologies of agency type that effectively are "snapshots" of agencies at one point of time, on only two factors interacting, and that do not take consideration of issues and issue phasing are very misleading (e.g., Lowi's and Wilson's typologies). As you have seen, I have referred to them in my narrative on occasion. However, at best, they are starting points that must be then informed by different issue types, and they ebb and flow over time. Moreover, these issues or programs, rather than agency, must be the unit of analysis to really be meaningful.

That being said, and as summarized in a more detailed cross-agency comparison I provide in Appendix B, the measures do show variation among agencies that is sufficient to conclude that the stability-turbulence of their political environments differ. Budgets show the most volatility and growth in the two agencies that are the most politicized in terms of appointee-careerists ratios (CMS and FDA). In contrast, the two scientific agencies with the lowest appointee-careerist ratios (CDC and NIH) are essentially stagnant with the exception of sending

stimulus money through NIH. Staffing levels for CDC, FDA, and NIH all rose when President Obama entered office, and CMS's FTEs stayed flat until it was time to implement the ACA when they were allotted more people.

Similarly, congressional attention through bills and testimony track the same pattern for CDC, FDA, and NIH while CMS tells a different story. When I compare the pattern for CDC, FDA, and NIH to overall congressional productivity, it is the same. Because of the ACA, CMS congressional attention tracks separately. In this case, you see an increase in bills introduced around the time that the ACA was passed that then drops to pre-ACA levels, then an increase in testimony during the next session.

Likewise, presidential attention shows small upticks when the president focuses on an issue but a general pattern for the same three out of four agencies. CDC, FDA, and NIH all had moments where attention increased, but there was a large spike in 2009 at the beginning of the Obama administration when he was establishing his agenda and making changes from the Bush administration. On the other hand, CMS attention slid during the Bush administration and did not pick up until 2010 and 2011, after the successful passage of the ACA. Presidential attention diminished again in 2012, only to take a sharp rise in 2013 when President Obama campaigned for people to sign up for the ACA coverage and defended failed implementation. For federal register documents, upticks exist for each agency when politically salient issues are passed to the bureaucracy to implement, such as new statutes. However, no overwhelming pattern in growth or decline separate from specific issues. Finally, *New York Times* coverage peaks whenever a large political issue for an agency emerges.

These measures indicate when the political world focuses attention on agencies, and this focus almost always corresponds with increased workloads for careerists. While agencies are

staffed for their ongoing business, and may be able to do some preparation when they see a big issue on the horizon, surges in political attention as captured in these variables mean surges in workload and stress for careerists. As you will see in interview findings, it is exactly these surges that result in careerist burnout as time and again, interviewees discussed the strain of working on politically “hot” issues. By combining these variables, one also gains a picture of overall agency volatility/stability that contributes to careerist job satisfaction and career choices. For example, the CDC appears to be the most politically stable and least politicized agency of the four in this study. As you will see in chapter 5, it is also the agency with the lowest turnover intent.

Exploring the political environments of each agency also shows that agencies need to adjust their internal operations to prepare for the demands of the political world. Each agency can anticipate possible political/environmental challenges and prepare to cope with them. As such, agencies will behave consistent with Mintzberg’s 1983 proposition and redistribute resources internally to best respond to their environments. This redistribution alters the experience of careerists and their perceptions of their work (and its value in the political world), no doubt making some happy and others unhappy, creating a link to turnover intent. While my statistical analysis cannot directly measure the impacts of this political world, one can see how the political pushes and pulls on each agency appear through traditional variables, influencing job satisfaction, and directly contributing to career change decisions.

Having established the differences among agency political environments and discussed how the volatility or stability of an organization may impact careerists, I next move to my quantitative analysis. In chapter 4, I discuss my theoretical framework, data, and methods for quantitative analysis. I more deeply identify and explore the logic of the internal and external

agency variables that I posit will impact career choices, as well as the nature of the causal relationships among them. In the process, I make the case for differentiating turnover intent into leaving the government and leaving one's job but staying within the federal workforce. I conclude by discussing the data and methods used in the statistical analysis component of my study.

CHAPTER 4

THEORETICAL FRAMEWORK, DATA, AND METHODS

In the first three chapters, I have established the import of studying turnover intent in the federal government, identified a failure in otherwise excellent prior research to incorporate the impacts of external political environments on turnover intent, and illustrated variation in the political environments of the four agencies in my study that could lead to variations across them in turnover intent. This chapter turns, in order, to the specifics and logic of the theoretical framework, data, hypotheses, and methods informing the quantitative component of my study.

Theoretical Framework

The theoretical framework guiding my analysis is predicated on the findings of the disparate research reviewed in Chapter 2 and 3. As illustrated in Figure 1, I posit that an agency's environment has both direct and indirect influences over careerist turnover intent. The overarching logic of the integrated model is that environmental political variables (e.g., bureaucrat bashing, congressional sequesters and continuing resolutions, and politicization by presidents; agency type; political shocks, etc.) can have direct effects on turnover intent (e.g., "I like the job, but I don't like being demeaned by citizens or elected officials for being a bureaucrat so I want to leave"), on organizational factors (e.g., I don't like my job and want to leave because political appointees in my agency keep careerists in the dark and don't value our input"), and on job satisfaction (e.g., "I want to leave because they underfund my agency, keep heaping more work on us, and cut my opportunities for training"). In turn, the external political environment has indirect effects on turnover intent via its impact on internal organizational factors, which in turn can lower job satisfaction, which can lead to turnover intent. In turn, and over time, the possibility or reality of turnover intent, job satisfaction, and management pathologies can influence the actions of actors in the political and economic environment (e.g.,

either increasing or decreasing micro-management of agencies or reducing contracting out mandates because of scandals).

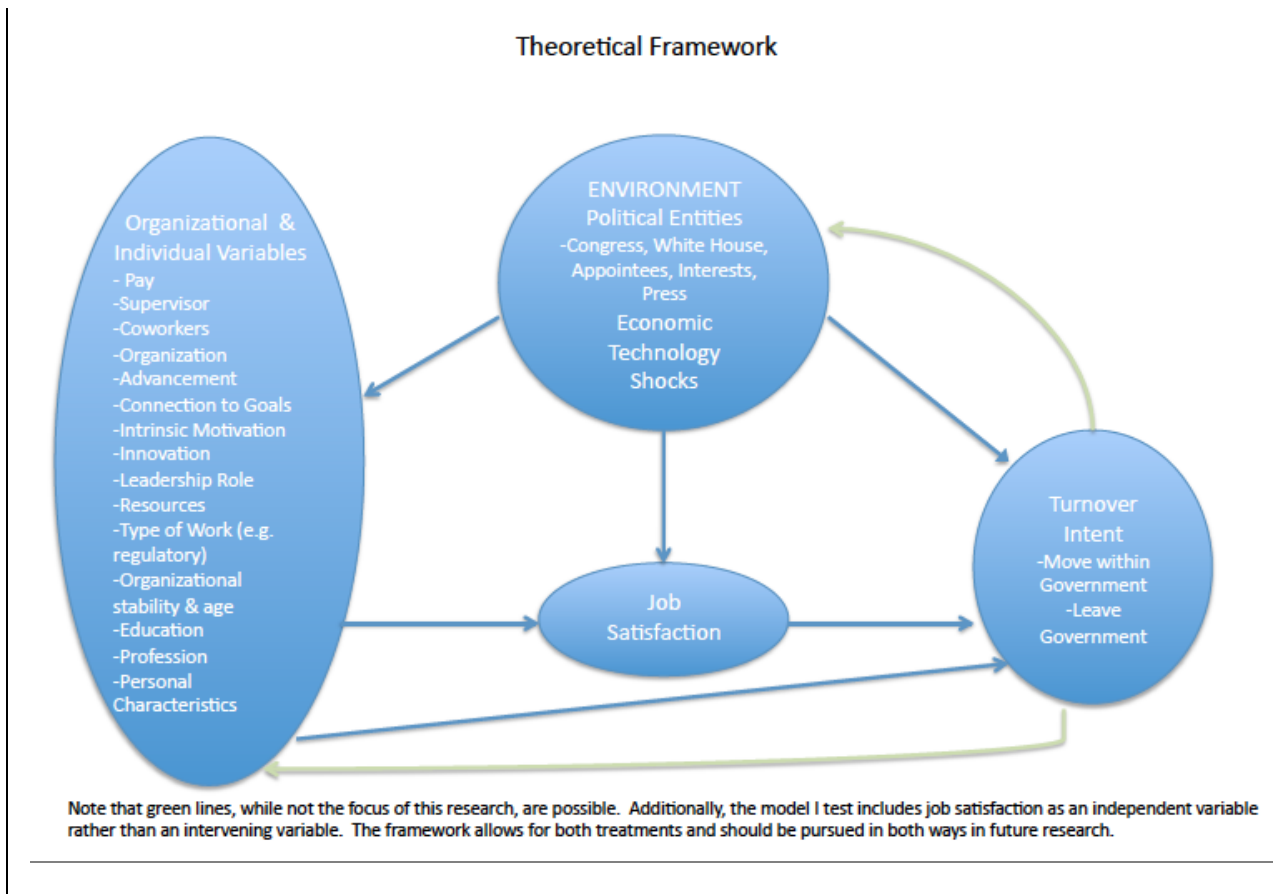


Figure 1: Theoretical Framework

More precisely, the environment (including political, economic, demographic, and technological components) directly influences internal organizational variables, job satisfaction, and turnover intent. In terms of organizational variables, in federal agencies, the pay structure is a product of the political world, thereby making a direct link between the political world and pay satisfaction. For example, there was a federal freeze on pay for three years during this study followed by a meager one percent increase.

Interview data and literatures on open systems and agency design also indicate that the political world influences organization structures and resource distribution. As the political world sets many of an organization's goals and mission, it also has a direct impact on people's views of and connection to goals. Also, those in leadership roles are more likely to be in direct contact with political decisions and political entities.

The environment also impacts job satisfaction by altering the stability of one's work where people may become frustrated or burnt out when faced with surges in activity based on political priorities. It is also rare, but feasible, that the political environment can create sufficient stress that it can lead to someone to want to change jobs. Finally, the model also includes feedback loops where turnover intent itself amasses enough energy to turn around and influence the environment by sending a strong message to the political world about success or failure, which then may cause actors to alter relevant organizational variables in ways to correct any deficiencies that are occurring.

I offer this integrative model, as I have noted earlier, as a corrective to what I see as a significant oversight in prior research on employee turnover intent. Specifically, the explicit focus of otherwise informative, important, and impressive research has been on internal organizational factors, without looking at the effects of external variables. At best, one can say that the external environment is implicit in the findings of prior research (e.g., "Of course we know that the internal operations of agencies are affected by external factors."). But would that answer be sufficient to public management scholars were the situation reversed—i.e., if only external agency factors were considered without looking at internal factors and the causal mechanisms involved, identified, and tested empirically? And when has "implicit" ever been tolerated as a "case closed" argument in social science research? Certainly, a science of

administration could never be built on such weak premises, and even a less ambitious goal of theory-building related to turnover intent.

That said, I offer this integrated theoretical framework in the hope that a more conceptually complete view of turnover intent will help to drive future research on this important topic. As in any research project, my data does not allow me to test all the posited relationships in the model.² Consequently, I limit this study to exploring the explicit direct relationships of largely political variables on turnover intent, and offer my analysis in the hope it will establish the value of further exploring the impact of external political (and other environmental) variables, as well as the specific causal mechanisms of direct, indirect, and feedback loops on turnover intent in the federal government. For now, I offer further analysis of these external causal mechanisms through my interviews and archival research.

Through the quantitative component of my analysis presented in the next chapter, I look at how organizational variables and job satisfaction influence turnover intent and whether after controlling for those factors, it is still possible that agency differences (including the political environment) and elements of time (capturing economic differences and movements in the political environment) are still relevant. As I noted in Chapter 1, and for the reasons I noted there, the statistical approach I take does not allow me directly to find that political and economic factors *alone* explain statistically significant differences in turnover intent across agencies if they are found. Nor does it allow me to test the precise causal mechanisms involved. But if significant differences across agencies in turnover intent remain after controlling for the

² The literature presents job satisfaction as both an independent variable and intervening variable impacting turnover intent. Job satisfaction can theoretically influence turnover intent when other variables are held constant and may be an intervening variable where other components of satisfaction contribute to overall job satisfaction that then influences turnover intent. Given that the two approaches are both established in the literature, theoretically grounded, and not mutually exclusive, I build my framework to allow for both possibilities to exist. For the purpose of this study, I chose to quantitatively test job satisfaction as an independent variable rather than an intervening variable. Future research is needed to test alternative models allowed in this framework that operationalize job satisfaction as step between other satisfaction measures and turnover intent.

impacts of internal organizational factors, were such a finding to occur, it does allow me to say that external political factors, and their causal mechanisms, merit further exploration in future research.

Data

The data for this portion of my analysis is culled from the 2006, 2008, 2010, 2011, and 2012 Federal Viewpoint Surveys.³ In these surveys, OPM conducted a federal government-wide sample of full-time employees, with overall response rates of 57 percent in 2006, 51 percent in 2008, 52 percent in 2010, 49 percent in 2011, and 46 percent in 2012. Participants completed the survey via the Internet. To improve the response rate, OPM sent follow-up notes to those who did not initially respond, extended deadlines, provided a help center, and sent paper copies to employees without Internet access (www.fedview.opm.gov).⁴

For this analysis, I restricted the sample to full-time permanent employees at a pay level of GS 13, 14, or 15 in CDC, CMS, FDA, or NIH, resulting in a sample of 43,893. Of these, FDA comprised 29.10 percent of the sample; NIH, 25.93 percent; CDC, 24.41 percent; and CMS, 20.55 percent. This group is specifically chosen because this study focuses on career track decision-makers within HHS. Limiting the sample to GS 13-15 excludes most of the support staff and narrows the respondents to higher-level career positions. I also exclude from the sample people who want to retire in the next twelve months. As noted, the decision to retire is based on a distinct and more complicated set of personal factors, such as individual financial security, health, and spouse and family preferences.⁵

³ I chose to use the Federal Viewpoint Survey for this research as it provided a large sample for the four agencies in my study. An interesting option for future research is to use the Merit Systems Protection Board's Federal Merit Systems Survey to test the same hypotheses as it would also allow the inclusion of educational variables.

⁴ Seasonality can be a concern in survey data such as this. However, as the FedView Survey was conducted in different months from one year to another, these concerns are alleviated.

⁵ Since I take a subset of the sample, it is important to note that my findings are not based on a completely random sample of these types of employees in each agency, and response rates are unknowable.

Dependent Variables

The dependent variables used are measures of turnover intent. The underlying question that this research addresses is which factors motivate middle to higher-level HHS employees to either seek a new federal job, or seek a job outside of the federal government (compared to peers who do not intend to change jobs in each agency). The FHCS includes a question about turnover intent that reads, “Are you considering leaving your organization within the next year, and if so, why?” Possible responses are (a) No; (b) Yes, to retire; (c) Yes, to take another job in the federal government; (d) Yes, to take another job outside the federal government; and (e) Yes, other.

As illustrated in Table 1, after dropping those who want to retire and those who responded “Yes, other”, the restricted sample includes 79.59 percent that did not intend to leave, 16.33 percent that wanted another federal job, and 4.08 percent that intended to leave the federal government. This question was used to generate two dependent variables: the first is a dummy variable capturing no intent to leave versus expressing a desire to change jobs, the second includes the three options of no intent to leave, wanting a new federal job, and wanting to leave the federal government.

Independent Variables

This analysis includes three sets of independent variables: environmental factors, satisfaction measures, and demographic information. I include the external environmental factors to determine whether time (year) and place (agency) distinctly impact people’s career choices. The next set of variables, satisfaction measures, test traditional theories of motivation and turnover that are based on factors that are internal to the organization. Finally, I include demographic variables as controls. While factors such as a gender differences and such are

substantively very important to sort out, they are not the focus of my study and should be incorporated more directly in future research.

Environmental Factors⁶

1. Agency Differences

Hypothesis 1: After controlling for variables traditionally linked to turnover intent (demographics, fit, satisfaction measures, opportunity for advancement, self-efficacy, and goal ambiguity), differences in agency and political environments will be associated with differences in turnover intent.

Conventional motivation variables will only partially explain variance in turnover intent. Residual differences among agencies will still exist because of differences in agency culture and environment. As noted in Chapter 1, my analysis attempts to discern statistically significant differences in turnover intent across the four agencies. To this end, I created dummy variables for the four agencies in my case study. I use agency as a proxy for the political environment recognizing that it may include other internal questions not captured in other variables as well. However, as established in chapter 3, the political environment does vary from one agency to another and pushes agencies to address issues with different political demands thus (consistent with the open systems literature) altering the internal structure of an agency to adapt to its political environment. And differences in environments are associated in the literature with differences in cultures. As shown in Table 1, the Food and Drug Administration represents 29.10 percent of the sample, the National Institutes of Health are 25.92 percent, the Centers for

⁶ For this study, I felt compelled to use qualitative data to explore the connection between factors of the political environment and careerist job choices. Many elements of the political environment can be quantified, but as I noted, aggregating them across years into substantively interpretable and meaningful measures is problematic. Still, future researchers would do well to grapple with this methodological issue. This research must consider issues like time lags between political activity and employee responses, whether variables act independently or cumulatively, and possibly develop new measures such as overall environmental turbulence.

Disease Control and Prevention are 24.41 percent, and the Centers for Medicare and Medicaid Services accounted for 20.55 percent.

2. Year⁷

Hypothesis 2: As political and economic environments are dynamic, careerist turnover intentions will be different from year to year, offering opportunities and constraints for turnover.

Distinctions between years capture differences in both the economic and political environments that are not captured in measures of what happens inside of an organization. The year variables alone do not explain how the environment impacts careerists but do identify whether careerist turnover intent preferences change over time. The five years in my study are 2006 (19.56 percent of the sample), 2008 (17.12 percent), 2010 (20.07 percent), 2011 (17.95 percent), and 2012 (25.34 percent) (see Table 1).

Each of the five years in the sample had varying economic and political environments. The year 2006 was midway through George W. Bush's second term, with stable financial and employment markets and wherein the DOW continued to rise and overall unemployment was close to 4.5 percent. Housing markets were still fairly strong, although signs of weakness were beginning to appear as Housing Market Index (HMI) ratings from the National Association of Home Builders moved from an average of 67.2 in 2005 to 42.1 in 2006. The Republican Party held the White House, the Senate, and the House of Representatives.

By 2008, the landscape looked quite different. The survey was conducted a few months before President Obama's election; respondents knew that their political supervisors would change, but it was unclear at this point whether now-President Obama or Senator McCain would head the next administration. The Democrats had taken control of the House and the Senate was

⁷ For a complete explanation of the factors discussed in this section (partisanship, presidential election year, unemployment rate, Dow Jones industrial average, and housing market index, see Appendix B.

evenly divided on partisan lines. Financial and employment markets were beginning to show signs of danger as overall unemployment had crept up to about 6 percent and the first stories of faulty mortgages and banking problems were emerging. Housing market confidence dropped to 16.4. It was in the last months of 2008 (after the Federal Viewpoint Survey was conducted) that the DOW crashed, ending the year almost 34 percent lower than 2007 year-end.

The year 2010 marked the peak of unemployment in the U.S. during this period with a high of 10.6 percent. Housing markets had experienced a few years of lack of confidence and after a low Housing Market Index rating of 8 in January of 2009, confidence had only risen to a paltry average monthly rating of 15.9 in 2010. The one sign of hope was that the DOW had recovered to 2005 levels. Obama was in the first half of his first administration and the primary objective was to stabilize the economy. The American Recovery and Reinvestment Act of 2009 poured over \$830 billion into the economy through direct funding and tax breaks. The other major issue of the day was health care reform. Partisan politics had shifted to the Democrats holding the White House, Senate, and the House.

However, high levels of disagreement over stimulus spending amounts and health care reform led to changes in the political environment. In the 2010 elections, the Republicans took back control of the House. So in 2011, Washington returned to divided government. Unemployment had begun to decline from its peak to an average for the year of 9.3 percent, and housing markets were still extremely weak with an HMI rating of 16.3. The DOW had modest gains (5.4 percent over 2010) but would not be defined as booming. Washington was at war over federal spending and the debt ceiling leading to the Budget Control Act of 2011, which required drastic spending cuts in agencies and elsewhere beginning in January of 2013 if Congress could not pass a spending reduction bill.

The final year of the sample, 2012, was once again a presidential election year. Government was still divided and contentious. Debates about federal spending led to four continuing resolutions rather than one federal budget, creating uncertainty for federal agencies about resource availability. Economic markets continued to stabilize. Unemployment rates continued to improve with an annual average of 8.1 percent and housing markets were improving with an average Housing Market Index rating of 33.9 moving from 25 in January to 47 in December. The DOW remained stable with a 7.3 percent gain during the year.

Satisfaction Measures⁸

1. Job Satisfaction

Hypothesis 3: The greater the level of job satisfaction, the less likely careerists will be to express turnover intent.

The literature presents turnover intent as a step in the turnover process where varying elements impact job satisfaction that then correlates with turnover intent, and finally actual turnover (see Podsakoff et al. 2007 for an example). In general, models of turnover find that there is a strong correlation between job satisfaction and turnover intent as well as a correlation between turnover intent and actual turnover. This leads researchers to present turnover as a process where dissatisfaction translates to intent and then turnover (Dalton, Johnson, and Daily 1999). However, Mobley and colleagues (1979) found in their meta-analysis that while overall

⁸ An inherent challenge in using satisfaction measures to address turnover intent is that they imply a straight causal path: people who are more satisfied are less likely to leave. However, it is important to remember when incorporating the environment that the true question may be the perceived comparative advantage or disadvantage of the agency compared to other possible employers. Discussions of turnover intent need to consider the availability of alternative employers and whether in fact, employees view the “grass as greener” outside of their agencies. The use of these satisfaction measures also brings up questions of endogeneity and same source bias in this study, as well as much of the research in this area (see Podsakoff and Organ, 1986). While this is a challenge for the field, incorporating qualitative data on each of these measures that adds nuance to my findings, serves to support or refute results and identifies areas where endogeneity could be of true concern. However, as a whole, I do not believe that there is any greater concern with endogeneity or same source bias here than in other similar research using satisfaction measures.

job satisfaction is an important variable, it only explained 16 percent of variance in turnover in their work and that other factors need examination as well. In the survey, job satisfaction was measured by asking, “Considering everything, how satisfied are you with your job?” Possible responses were (1) “very dissatisfied”, (2) “dissatisfied”, (3) “neither satisfied nor dissatisfied”, (4) “satisfied”, and (5) “very satisfied”. As illustrated in Table 3, for job satisfaction, the mean was 3.769 with the standard deviation was 1.039. Given that the literature treats job satisfaction as both an independent variable and an intervening variable in turnover intent and turnover models, I chose to include it as an independent variable in this model. Constructing job satisfaction as an intervening variable is an important avenue to pursue in future studies.

2. Pay Satisfaction

Hypothesis 4: The more satisfied careerists are with their pay compensation, the less likely careerists will be to want to leave the federal government. However, pay satisfaction will not matter in decisions to change jobs within the federal government.

Research on the relationship between pay and expressions of turnover intent generally finds that pay is a statistically significant factor, but not necessarily a substantively significant variable (Whitford and Lee 2011; Pitts, Marvel, and Fernandez 2011). Pay is also found to matter differently for different groups. Bertelli (2007) found that increased pay correlated with decreased turnover intent in non-supervisory positions. However, the same relationship was not statistically significant for managers. Whitford and Lee (2011) find that federal workers who are more satisfied with their pay are less likely to want to leave their jobs, with the exception of those who intend to retire; this group was more satisfied with their pay. I extend this approach by distinguishing between those who want a new federal job and those who wish to leave the federal government. I propose that because a new federal job will fall under the same GS pay

categories, moving within the federal government does not offer large changes in pay.

Alternatively, if pay becomes an important issue, individuals are more likely to seek new jobs outside of the federal government. The FedView question on pay asks, “Considering everything, how satisfied are you with your pay?” Possible responses ranged from (1) “very dissatisfied”, (2) “dissatisfied”, (3) “neither satisfied nor dissatisfied”, (4) “satisfied” to (5) “very satisfied”.

Table 3 shows that the mean was 3.803 and the standard deviation was 1.006.

3. Supervisor, Group, and Organization Satisfaction

Hypothesis 5: The higher the level of careerist satisfaction with their supervisor, the less likely they will be to want to change jobs.

Hypothesis 6: The higher the level of careerist satisfaction with their work group, the less likely they will be to want to change jobs.

Hypothesis 7: The higher the level of careerist satisfaction with their organization, the less likely they will be to want to change jobs.

These three hypotheses are based on the concept of “fit”, where the match between an individual and their supervisor, group, and organization are thought to be determinants of job satisfaction and turnover (French & Kahn, 1962; French et al., 1974, Edwards, Caplan, & Harrison, 1998). Kristof (1996) discusses the importance of person-organization fit recognizing other forms of person-environment fit including person-vocation fit, person-job fit, person-group fit. She finds support in the literature for reduced turnover intent when person-group fit is higher. Positive relationships with coworkers are also correlated with increased job satisfaction (Bertelli 2007, Ting 1997). Bertelli (2007) posits that both friendships and perceptions of group productivity are linked to the probability of expressing turnover intent. Pitts, Marvel, and Fernandez (2011) examined the role of coworker relationships as well. They found that in the

federal government, group relationships were not a significant indicator of turnover intention. While the theoretic foundation for group fit as a determinant of turnover intent is plausible, the empirical results do not provide much support. Intuitively, one recognizes that relationships with coworkers can affect one's satisfaction with their job and thus their interest in staying or leaving.

Kristof-Brown, Zimmerman, and Johnson found in their meta-analysis that person-supervisor fit had a stronger relationship with job satisfaction than organizational commitment. This finding suggests that the immediate relationship with one's supervisor has more of an impact on an individual than the organization at large (2005). Similarly, Pitts, Marvel, and Fernandez observe that the relationship with one's supervisor has a greater impact on turnover intent than the relationship with one's peers or group.

All of the measures I use to test these hypotheses have the following possible responses; (1) "very dissatisfied", (2) "dissatisfied", (3) "neither satisfied nor dissatisfied", (4) "satisfied" and (5) "very satisfied". To gauge supervisor satisfaction, the FedView survey uses the question, "Overall, how good a job do you feel is being done by your immediate supervisor/team leader?" The average was 3.964 and the standard deviation was 1.11. Next, I measure group cooperation as a proxy for satisfaction, using the same question as Pitts, Marvel and Fernandez (2011), "The people I work with cooperate to get the job done." As reported in Table 3, the mean is 4.021 and the standard deviation is 0.908. Finally, organizational satisfaction is measured through the question, "Considering everything, how satisfied are you with your organization?" The mean was 3.584 with a standard deviation of 1.076.

4. Opportunities for Advancement

Hypothesis 8: The higher the level of careerist satisfaction with their opportunities for advancement, the less likely they will be to want to change jobs.

Wright and Davis (2003) found that perceived opportunities for advancement correlated with higher job satisfaction. Such opportunities may represent different sets of values including an intrinsic desire for personal growth and recognition, and the potential for extrinsic rewards such as increased pay or improved working conditions. For job growth, I used the question, “How satisfied are you with your opportunity to get a better job in your organization?” Possible responses were (1) “very dissatisfied”, (2) “dissatisfied”, (3) “neither satisfied nor dissatisfied”, (4) “satisfied” and (5) “very satisfied”. Table 3 displays that the responses to this question had a mean of 3.115 and a standard deviation of 1.150.

5. Intrinsic Motivation

Hypothesis 9: The higher the level of careerist satisfaction with measures of intrinsic motivation, the less likely they will be to want to change jobs.

Valuing one’s work, enjoying work, and feeling that one is making a strong contribution, increase people’s perception of having rewarding professional lives and therefore may reduce turnover intent. Bertelli (2007) identifies a series of statements used in the FedView Survey that capture agreement or disagreement with statements that reflect intrinsic motivators related to one’s sense of self, including, “My talents are well used in the workplace”, “The work I do is important”, “I like the kind of work I do”, and “My work gives me a feeling of personal accomplishment”. Bertelli uses these and other questions to create what he calls a JIM index (job improvement and intrinsic motivation). He finds that higher “JIM” scores are correlated with lower probabilities of turnover intent among both supervisors and non-supervisors. Cho and Perry (2011) also examine the relationship between intrinsic motivators and intent to leave. They measure satisfaction with intrinsic motivators through agreement or disagreement with the following statements, “My work gives me a feeling of personal accomplishment”, “I like the

work I do”, and “The work I do is important”. They find that higher intrinsic motivation correlates with lower likelihood of expressing turnover intent. To measure satisfaction with intrinsic motivation, I generated a new variable based on Cho and Perry’s 2011 measure. The new variable includes responses for the following questions: “ My work gives me a feeling of personal accomplishment”, “I like the work I do”, and “The work I do is important”. The Cronbach’s alpha measure for the new variable is 0.82 and the Eigenvalue is 2.23. Each question had five possible responses ranging from (1) “strongly disagree” to (5) “strongly agree”. As illustrated in Table 3, the possible range for the innovation variable is 3 to 15, with a mean of 12.474 and a standard deviation of 2.305.

6. Goal Clarity

Hypothesis 10: Those who experience greater goal clarity will be less likely to want to change jobs.

Goal setting theory (see Locke and Latham 1990) posits that clear performance goals serve as a motivator. Conversely, a lack of clear goals creates frustration. Cho and Perry (2011) present a causal model where goal ambiguity influences intrinsic motivation which then influences overall levels of satisfaction. Goal ambiguity is also related to people’s connection to their agency’s mission. In public sector agencies, the link to mission may be an important motivation. To measure goal ambiguity, I use the question, “I know how my work relates to the agency’s goals and priorities.” Possible responses were (1) “strongly disagree”, (2) “disagree”, (3) “neither agree nor disagree”, (4) “agree” and (5) “strongly agree”. In my sample, the mean is 4.092 and the standard deviation is 0.876.

7. Innovation

Hypothesis 11: The more careerists agree that they are encouraged to innovate, the less likely they will be to want to change jobs.

Consistent with Yang and Kassekert's (2009) finding that innovation contributed to higher job satisfaction, I propose that among upper-level careerists, being satisfied with one's ability to innovate corresponds with people being less likely to want to change jobs. One's ability to innovate is measured on a five-point scale of (1) "strongly disagree" to (5) "strongly agree" by the statement, "I feel encouraged to come up with new and better ways of doing things" with a mean of 3.667 and a standard deviation of 1.157 (see Table 3).

Demographic Variables

1. Leadership Role

Hypothesis 12: Those with greater leadership responsibilities will be more likely to want to change jobs.

This hypothesis can be viewed as a measure of the impact of the environment on an organization. Those with greater leadership roles have more contact with appointees and the broader political environment, while those in non-leadership positions may be more insulated from the agency's political relationships. In this, the stresses generated by the demands of the political environment will translate to higher turnover intent. The literature on political appointees presents their jobs as associated with high levels of stress that can lead to lower levels of job satisfaction (Gill and Waterman 2004; Michaels 1995). If appointees are working closely with careerists in leadership positions, it is possible that their stresses are transferred to careerists (e.g., vicariously or by leaders ratcheting up the stress levels of subordinates). The FedView survey offers three categories of leaders: no leadership role/team leader (76.81 percent of the

sample), supervisor (15.43 percent of the sample), or manager/executive (7.76 percent of the sample). Descriptive statistics can be found in Table 1.

2. Tenure

Hypothesis 13: Federal tenure will have varying impacts on exit decisions. Overall, the longer careerists have worked for the federal government, the less likely they will be to want to change jobs. However, as tenure with the federal government increases, future career preferences will also change. Those with the least amount of tenure will be the more likely to want to leave the federal government, and those with more tenure will seek another federal job.

Tenure is widely used as a control variable, but has not (to my knowledge) been applied to future career choices. Intuitively, those with greater tenure are more vested in their positions and less likely to leave. In extending this to applications of future job preferences, those with greater tenure are more likely to have connections inside the government, be comfortable with the nature of government jobs, and be less likely to opt for the riskier choice of leaving the federal government. There are five categories of federal tenure; 0-3 years (9.85 percent of the sample), 4-5 years (7.26 percent), 6-10 years (20.60 percent), 11-20 years (28.51 percent), and more than 20 years (33.78 percent) (See Table 2).

3. Demographic Control Variables

The final pair of independent variables includes controls for age and gender. As shown in Table 2, age is broken into five categories: (1) under 30 (1.05 percent), (2) 30-39 (15.69 percent), (3) 40-49 (31.10 percent), (4) 50-59 (37.82 percent), and (5) 60+ (14.34 percent). The gender distribution is 38.81 percent male and 61.19 percent female (see Table 1). Curiously, the survey asks about race and ethnicity in different ways from one year to another. Because the

approaches are so different, I could not incorporate race and ethnicity into my study.⁹ As noted above, differences in age and gender as they relate to turnover intent are major and controversial employment issues generally, and especially when it comes to concerns related to passive and active representation in the bureaucracy. They should be pursued in future research as key variables to be tested, but they are not the major focus of this study, which is on discerning the linkages between external agency environments and turnover intent of federal workers.

Quantitative Methods

The quantitative portion of my study begins with simple t-tests to determine if, without any controls, differences in the percent of people in each agency wanting to change jobs are statistically different. The next step is to use binary logistic regression to test which factors contribute to the decision to change jobs, regardless of future career preference (Model 1). The final step is to conduct two binary logistic regressions to test the second and third models to determine if the choice to leave government is driven by different issues than the choice to change jobs within government:¹⁰

$$\text{Prob(Any Turnover)} = \beta_0 + \beta_1 \text{Agency}_i + \beta_2 \text{Year}_i + \beta_3 \text{Job Satisfaction}_i + \beta_4 \text{Pay Satisfaction}_i + \beta_5 \text{Supervisor Fit}_i + \beta_6 \text{Group Cooperation} + \beta_7 \text{Organization Satisfaction}_i + \beta_8 \text{Leadership}$$

⁹ The FedView survey asked respondents about race and ethnicity differently from year to year, yielding different categories from one survey to the next where some groups were not included in all years. This prevented me from using specific racial or ethnic distinctions for the full sample. I considered incorporating a minority/non-minority variable into my model, but decided against this approach after running tests on the FedView survey in years where racial and ethnic differences were broken into numerous categories. I found that turnover intent varied among many racial and ethnic groups, with non-minorities falling in the middle. Thus a simple minority/non-minority categorization masked differences among subgroups. Because of this, I chose to exclude race from this model. Racial and ethnic differences, however, are important questions for future research that must be treated as a more nuanced factor than a minority/non-minority variable allows.

¹⁰ Recognizing that models two and three may not be independent, I also ran the model using a multinomial logit approach where the three categories were to stay in one's job, desire a new federal job, or want to leave government. The findings were the same for this approach and the two binary models that I ultimately used for simplicity of interpretation.

$$\text{Role}_i + \beta_9 \text{Federal Tenure}_i + \beta_{10} \text{Job Growth}_i + \beta_{11} \text{Intrinsic Motivation}_i + \beta_{12} \text{Goal Ambiguity}_i + \beta_{13} \text{Innovation}_i + \beta_{14} \text{Gender}_i + \beta_{15} \text{Age}_i + \varepsilon_i$$

$$\begin{aligned} \text{Prob}(\text{Turnover} - \text{New Federal Job}) = & \beta_0 + \beta_1 \text{Agency}_i + \beta_2 \text{Year}_i + \beta_3 \text{Job Satisfaction}_i + \beta_4 \text{Pay} \\ & \text{Satisfaction}_i + \beta_5 \text{Supervisor Fit}_i + \beta_6 \text{Group Cooperation}_i + \beta_7 \text{Organization Satisfaction}_i + \\ & \beta_8 \text{Leadership Role}_i + \beta_9 \text{Federal Tenure}_i + \beta_{10} \text{Job Growth}_i + \beta_{11} \text{Intrinsic Motivation}_i + \\ & \beta_{12} \text{Goal Ambiguity}_i + \beta_{13} \text{Innovation}_i + \beta_{14} \text{Gender}_i + \beta_{15} \text{Age}_i + \varepsilon_i \end{aligned}$$

$$\begin{aligned} \text{Prob}(\text{Turnover} - \text{Non-Federal Job}) = & \beta_0 + \beta_1 \text{Agency}_i + \beta_2 \text{Year}_i + \beta_3 \text{Job Satisfaction}_i + \beta_4 \text{Pay} \\ & \text{Satisfaction}_i + \beta_5 \text{Supervisor Fit}_i + \beta_6 \text{Group Cooperation}_i + \beta_7 \text{Organization Satisfaction}_i + \\ & \beta_8 \text{Leadership Role}_i + \beta_9 \text{Federal Tenure}_i + \beta_{10} \text{Job Growth}_i + \beta_{11} \text{Intrinsic Motivation}_i + \\ & \beta_{12} \text{Goal Ambiguity}_i + \beta_{13} \text{Innovation}_i + \beta_{14} \text{Gender}_i + \beta_{15} \text{Age}_i + \varepsilon_i \end{aligned}$$

The three models examine the factors associated with the probability of an employee reporting turnover intent and future career preferences: another federal job, and obtaining a non-federal job. Each group is compared to employees who report no turnover intent. All three models include the same set of independent variables. When the correlations were examined to test for multicollinearity, all correlations were below the 0.80 threshold.¹¹

Conclusion

As you have read, my approach to studying how agency environments impact federal careerists has three methodological approaches: archival, interviews, and a quantitative analysis

¹¹ Additionally, I conducted a series of sensitivity analyses to confirm findings. I ran the models independently for each agency and for each year to identify any anomalies in the data. I found slight variations, but nothing that challenged the validity of my approach and findings.

of the Federal Viewpoint Survey. The archival research gathers information on agency political environments and the economic environment. Interviews give careerist perspectives on agency relationships and what their experience tells them about why people really change jobs. The quantitative analysis serves to test traditional motivation theories and establish whether environmental differences persist through agency and year variables, indicating that environmental factors may still be influencing turnover intent after controlling for numerous commonly used variables in turnover and job satisfaction studies. To these ends, I proposed three quantitative approaches to testing my hypotheses. The first was to use a series of t-tests to determine if differences among agencies were statistically significant. The second was to use binary logistic regression to identify factors that were relevant to the decision to change jobs. The final approach employed two binomial logit models that consider the choice to move within government separately from the choice to leave government, both compared to people who choose to stay in their current jobs. In the next chapter, I will present my findings, using data from my archival research and interviews to also inform and indirectly “test” how congruent my statistical findings are with world as seen by career civil servants whom I interviewed.

Table 1. Descriptive Statistics for Turnover Intent, Year, Agency, Leadership Role, and Gender

Variable	Frequency	Percent
<u>Turnover Intent</u>		
No Turnover Intent	34,933	79.59
Another Federal Job	7,167	16.33
Non-Federal Job	1,793	4.08
<u>Year</u>		
2006	9,399	19.56
2008	8,227	17.12
2010	9,644	20.07
2011	8,627	17.95
2012	12,165	25.31
<u>DHHS Agency</u>		
Food and Drug Administration	13,988	29.10
National Institutes of Health	12,462	25.93
Centers for Disease Control & Prevention	11,733	24.41
Center for Medicare & Medicaid Services	9,879	20.55
<u>Leadership Role</u>		
No Leadership Role/Team Leader	36,833	76.81
Supervisor	7,399	15.43
Manager/Executive	3,719	7.76
<u>Sex</u>		
Male	15,395	38.81
Female	24,273	61.19

Table 2. Descriptive Statistics for Age and Federal Tenure

Variable	Frequency	Percent	Cumulative Percent
<u>Age</u>			
Under 30	502	1.05	1.05
30 – 39	7,473	15.69	16.74
40 – 49	14,811	31.10	47.84
50 – 59	18,015	37.82	85.66
60+	6,829	14.34	100.00
<u>Federal Tenure</u>			
0 – 3 years	3,904	9.85	9.85
4 – 5 years	2,878	7.26	17.11
6 – 10 years	8,165	20.60	37.71
11 – 20 years	11,298	28.51	66.22
> 20 years	13,387	33.78	100.00

Table 3. Descriptive Statistics for Satisfaction and Agreement Variables

Variable	Observations	Range	Mean	Standard Deviation
Job Satisfaction	47,911	1-5	3.769	1.039
Pay Satisfaction	47,915	1-5	3.803	1.006
Supervisor Fit	47,955	1-5	3.964	1.11
Group Cooperation	47,382	1-5	4.021	0.908
Organization Satisfaction	47,916	1-5	3.584	1.076
Opportunities to Advance	47,897	1-5	3.115	1.150
Intrinsic Motivation	47,522	3-15	12.474	2.305
Goal Clarity	47,763	1-5	4.092	0.876
Innovation	47,915	1-5	3.667	1.157

CHAPTER 5

FINDINGS

In understanding how the political environment filters into an agency and the experience of careerists, it is important to differentiate between internal factors such as coworker relationships and other forces pulling on an agency. In earlier chapters, I laid out the literature that is relevant to questions of turnover in, among others, the traditional motivation literature, the open systems literature, and literature from public administration and political science exploring the how the political world interacts with agencies.

I then outlined the unique history, issues, and political environments for each of the four agencies in my study: the Centers for Disease Control and Prevention (CDC), the Centers for Medicare and Medicaid Services (CMS), the Food and Drug Administration (FDA), and the National Institutes of Health (NIH). After outlining my theoretical framework, data, and methods in the last chapter, I now turn to the findings.

My major concerns are threefold. First, I'm interested in whether internal organizational variables found to impact turnover intent in prior research for federal employees generally are equally powerful in this subsample of agencies. Second, and relatedly, I'm interested in determining whether or not statistically significant agency differences in turnover intent exist after taking traditional organizational variables into consideration. Finally, I'm interested in assessing the extent to which my findings are consistent with the data I culled from my interviews. I organize the discussion around findings related to the "baker's dozen" of hypotheses I offered in Chapter 4. I conclude this chapter by outlining the overall story generated by these findings.

Broad Environmental Factors

Agency

Hypothesis 1: After controlling for variables traditionally linked to turnover intent

(demographics, fit, satisfaction measures, opportunity for advancement, intrinsic motivation, and goal ambiguity), differences in agency and political environments will be associated with differences in turnover intent.

The first hypothesis predicted that there would be statistically significant differences among agency turnover intent rates. The initial step in testing this was to see if the general differences in turnover intent by agency were statistically different. As Figure 2 shows, the overall rates for people wanting to change jobs in each of the agencies were 17.82 percent for CDC, 19.04 percent for FDA, 21.74 percent for CMS, and 23.39 percent for NIH. T-tests comparing each agency found that all of the differences were statistically significant (see Table 4: T-Test Results).

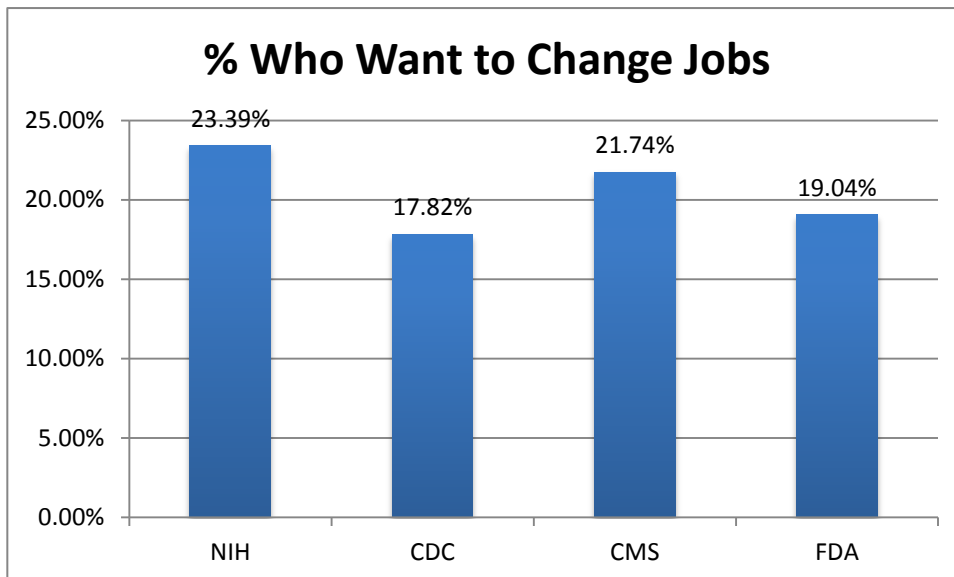


Figure 2. Percent of people at each agency that want to change jobs

Table 4. T-Test Results

T-Values for Differences Between Agencies in Overall Turnover Intent

	CDC	CMS	FDA
CMS	-6.90***		
FDA	-2.40*	4.88***	
NIH	-10.28***	-2.79**	-8.30***

*Statistical significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)*

T-Values for Differences Between Agencies in Wanting a New Federal Job

	CDC	CMS	FDA
CMS	-7.71***		
FDA	-2.46*	5.66***	
NIH	-11.64***	-3.27**	-9.67***

*Statistical significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)*

T-Values for Differences Between Agencies in Wanting to Leave Government

	CDC	CMS	FDA
CMS	-0.45		
FDA	-0.64	-0.13	
NIH	-0.12	0.33	0.51

*Statistical significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)*

The next step was to employ the same technique to determine whether agency differences in wanting a new federal job were relevant. In this case, the percentage of people in each agency that wanted a new federal job was 13.69 percent in CDC, 14.79 percent in FDA, 17.67 percent in CMS, and 19.51 percent in NIH (see Figure 3: percent of people that want a new federal job). All of the agency differences were still statistically significant (see Table 4: T-Test Results). For both the overall measure of wanting to change jobs and the measure of wanting to move within the federal government, the order of the agencies from least to greatest was CDC, FDA, CMS, and NIH. CDC having the lowest turnover intent is consistent with my expectations as measures of its political environment show the lowest levels of politicization and the location in Atlanta limits options to move within government without relocating. However, based on political measures, I would expect either CMS or FDA to have the highest turnover intent.

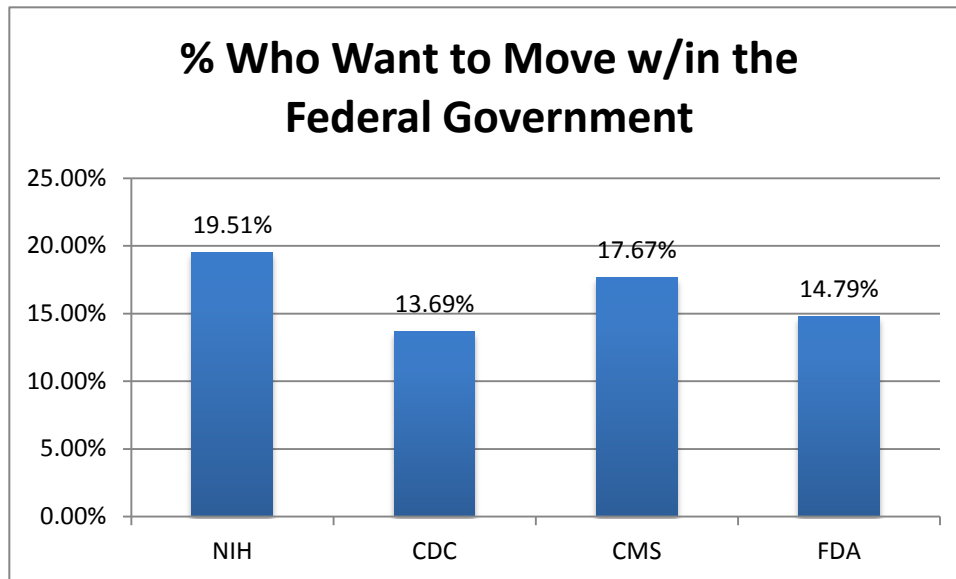


Figure 3. Percent of people that want a new federal job

The final set of t-tests tell a different story, however. As Table 4 illustrates, when comparing agency rates of people wanting to leave the federal government, none of the differences were statistically significant. In Figure 4, we see that the percentage of people wanting to leave the government at each agency was in a narrow range from 3.88 percent to 4.24 percent. Agency rates were FDA at 4.24 percent, CDC at 4.13 percent, CMS at 4.06 percent, and NIH at 3.88 percent (see Figure 4: percent of people who want to leave government). This finding challenges the work of the Volker Commission (1989 and 2003) and Light (2008) in asserting that there is a “quiet” or “deafening” crisis in people wanting to leave the federal service, and confirms studies by Lewis questioning the crisis.

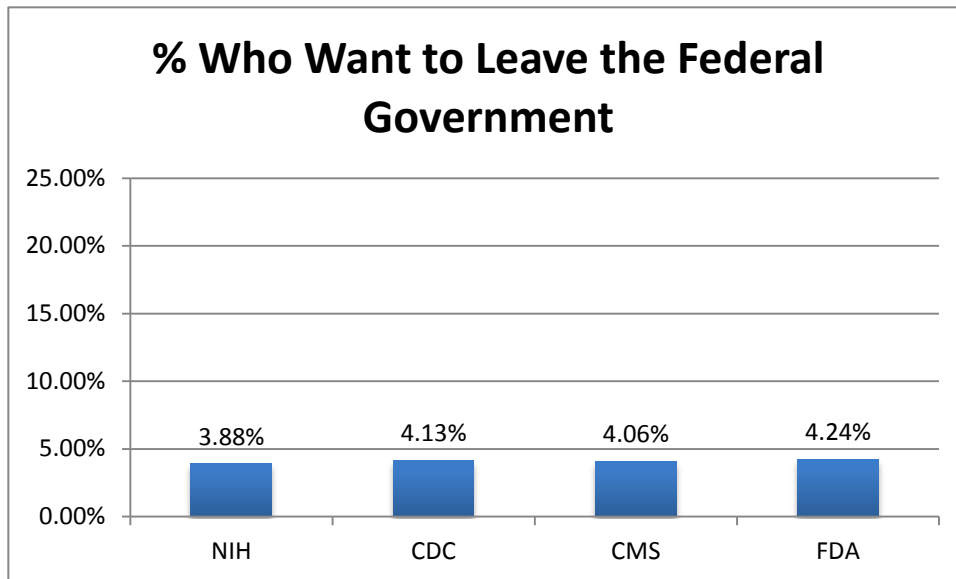


Figure 4. Percent of people who want a new job outside of the federal government

When agency differences are assessed in using the logit models that control for other commonly used turnover intent variables, results are similar. The first model, asking only if people wanted to change jobs in the next year, found that agency differences were all statistically significant (see Table 5). Once again I find that CDC makes sense as the agency with the lowest turnover intent rate, given that it is the least politicized agency and that I would expect either FDA or CMS to have the highest turnover intent instead of NIH. Note that when controlling for other factors, FDA and CMS switch positions where CMS moves from the third highest turnover intent to the second highest. However, interviewees at NIH expressed that it would be easy for them to change jobs, as working for the agency is highly regarded in both private industry and across government.

Table 5. Binomial Logit Results – Those who want to change jobs vs. those who want to stay

	Coefficient	Standard Error
CDC	-0.599***	(0.046)
CMS	-0.493***	(0.048)
FDA	-0.388***	(0.043)
2008	0.127*	(0.064)

2010	0.204***	(0.055)
2011	0.166**	(0.056)
2012	0.246***	(0.053)
Job Satisfaction	-0.641***	(0.026)
Pay Satisfaction	-0.103***	(0.017)
Supervisor Satisfaction	-0.159***	(0.017)
Coworker Cooperation	-0.039*	(0.019)
Organization Satisfaction	-0.247***	(0.023)
Advancement Opportunities	-0.366***	(0.019)
Intrinsic Motivation	-0.001	(0.009)
Goal Clarity	0.091***	(0.021)
Ability to Innovate	-0.036*	(0.018)
Supervisors	0.201***	(0.048)
Managers	0.522***	(0.069)
Federal Tenure	-0.134***	(0.014)
Age	-0.392***	(0.020)
Female	-0.162***	(0.034)
Constant	5.108***	(0.135)

*Statistical significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)*

When turnover plans are broken into new federal jobs and leaving the government, it appears that the variation in turnover intent lies more in the choice to seek a new federal job than the desire to leave the government. All of the agency variables were statistically significant for wanting to move within the federal government (see Table 6).

Table 6. Binomial Logit Results – Those who want to move w/in government vs. those who want to stay

	Coefficient	Standard Error
CDC	-0.700***	(0.050)
CMS	-0.564***	(0.052)
FDA	-0.463***	(0.047)
2008	0.242***	(0.072)
2010	0.416***	(0.061)
2011	0.350***	(0.063)
2012	0.409***	(0.060)
Job Satisfaction	-0.647***	(0.029)
Pay Satisfaction	-0.007	(0.019)
Supervisor Satisfaction	-0.210***	(0.019)
Coworker Cooperation	-0.041*	(0.020)
Organization Satisfaction	-0.228***	(0.025)
Advancement Opportunities	-0.397***	(0.021)
Intrinsic Motivation	-0.007	(0.010)
Goal Clarity	0.114***	(0.023)
Ability to Innovate	-0.016	(0.020)
Supervisors	0.174***	(0.053)
Managers	0.369***	(0.079)
Federal Tenure	-0.114***	(0.015)
Age	-0.406***	(0.021)
Female	-0.030	(0.037)
Constant	4.490***	(0.147)

*Statistical significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)*

The marginal effects show that differences between agencies can be quite large, with the likelihood of wanting to move jobs within the federal government compared to NIH being 4.6 percent lower in FDA, 5.7 percent lower in CMS, and 7.0 percent lower in CDC (Table 8). As with the previous model, this makes sense for CDC as the least politicized agency, but the NIH as the highest turnover intent agency is unexpected in terms of the political environment alone. However, with NIH as a base group, there was a significant difference in the percent of people wanting to leave CDC and CMS, but no difference in wanting to leave government between NIH and FDA (see Table 7). Even though the differences between NIH and CDC, and NIH and

CMS, are statistically significant, the marginal effects show that they are substantively irrelevant with less than a one percent difference in the likelihood of wanting to leave between agencies (see Table 8). During interviews, most people said that there were differences among agencies that stemmed from the political environment and recognized that those differences could change work experiences and job choices. Two of the interviewees cited their agencies as favored by Congress. One cited budgetary support of the agency as evidence (Interview, 12/23/13), and the other noted politicians use of the agency as a reason to end the 2013 government shutdown. The interviewee said, “Probably you noticed during the shutdown, a lot of attention was given to NIH. We are a favorite child of the political system in this country because we do great work” (Interview 10/25/2013).

Table 7. Binomial Logit Results – Those who want to leave government vs. those who want to stay

	Coefficient	Standard Error
CDC	-0.241**	(0.089)
CMS	-0.226*	(0.096)
FDA	-0.066	(0.084)
2008	-0.137	(0.111)
2010	-0.512***	(0.101)
2011	-0.383***	(0.100)
2012	-0.147	(0.090)
Job Satisfaction	-0.649***	(0.050)
Pay Satisfaction	-0.380***	(0.030)
Supervisor Satisfaction	0.061	(0.032)
Coworker Cooperation	-0.040	(0.035)
Organization Satisfaction	-0.282***	(0.045)
Advancement Opportunities	-0.244***	(0.037)
Intrinsic Motivation	0.023	(0.016)
Goal Clarity	0.009	(0.037)
Ability to Innovate	-0.138***	(0.035)
Supervisors	0.364***	(0.093)
Managers	1.011***	(0.117)
Federal Tenure	-0.266***	(0.027)
Age	-0.349***	(0.038)
Female	-0.589***	(0.062)

Constant	4.449***	(0.232)
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*Statistical significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)*

Table 8. Marginal Effects – All Compared to People Who Want to Stay in Their Current Jobs

Variable	Change Jobs	Move within Government	Leave Government
CDC	-0.068***	-0.070***	-0.009**
CMS	-0.056***	-0.057***	-0.008*
FDA	-0.044***	-0.046***	-0.002
2008	0.014*	0.022***	-0.006
2010	0.023***	0.040***	-0.019***
2011	0.018**	0.033***	-0.015***
2012	0.028***	0.039***	-0.006
Job Satisfaction	-0.073***	-0.065***	-0.024***
Pay Satisfaction	-0.012***	-0.001	-0.014***
Supervisor Satisfaction	-0.018***	-0.021***	0.002
Coworker Cooperation	-0.004*	-0.004*	-0.001
Organization Satisfaction	-0.028***	-0.023***	-0.011***
Advancement Opportunities	-0.042***	-0.040***	-0.009***
Intrinsic Motivation	-0.000	-0.001	0.001
Goal Clarity	0.010***	0.011***	-0.000
Ability to Innovate	-0.004*	-0.002	-0.005***
Supervisor	0.023***	0.017***	0.014***
Manager/Executive	0.060***	0.037***	0.038***
Tenure	-0.015***	-0.011***	-0.010***
Age	-0.045***	-0.041***	-0.013***
Female	0.019***	-0.003	-0.022***

*Statistical significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$ (two-tailed)*

When asked whether different types of agencies (e.g. regulatory) altered how agencies were treated by the political world, feedback was mixed. One person felt that political treatment of agencies was based on issues rather than agency type noting that, “Some of the agencies go along quietly, and don’t attract a lot of attention. Others have a target on them all the time.” As an example, that person said, “EPA is a scientific organization, but they aren’t treated the same way that NIH is as far as being on the hit list or being attacked. Politicization in agencies depends on who the politicians want to stand next to for the picture to be sent back home”

(Interview, 11/5/2013)

Others felt that agency type was a relevant distinction. In discussing agency relationships with the public and the political world, an interviewee made a comment that supported Wilson's 1989 theory that the ability to produce outputs and outcomes defined an agency's relationship with the political world. The interviewee said, "With governmental public health work, a lot of what we do goes unseen. You have success when something doesn't happen. But how do you show that to people? Like when an outbreak doesn't happen" (Interview 4/1/14). When asked about agency relationships to Congress, another respondent based their answer on agency function or type,

"Regulatory agencies have no permanent allies and no permanent enemies. As long as you are not satisfying anybody, you can convince Congress that you are hitting it about right. Industry hates us and thinks we are over-regulating. Public interest groups think we are in the pocket of industry. So we've hit the tone about right. In other agencies, you select the tool that you have, but the whole environment is different" (Interview 9/11/13).

The findings from these interviews and from my quantitative analysis are consistent with my hypothesis that agency differences connected to the political environment persist after controlling for management factors. They also show that CDC as the least politicized agency has the lowest turnover intent as one would expect. However, further explanation is needed to see why NIH has the highest turnover intent instead of more politicized agencies like CMS or FDA. These findings also recognize that agency differences matter more for the choice to move within government than the decision to leave government.

Year

Hypothesis 2: As political and economic environments are dynamic, careerist turnover intentions will be different from year to year, offering opportunities and constraints for turnover.

As predicted, people's desires to change jobs did change over time, confirming my hypothesis. When compared to 2006, the most stable year economically and politically in the sample, all of the other years show fewer people wanting to change jobs in the first binary logit model (see Table 5). The marginal effects (Table 8) show that the likelihood of wanting to change jobs was only modestly different from one year to another, ranging from a 1.4 percent between 2006 and 2008 to a 2.8 percent difference between 2006 and 2012. The picture becomes more nuanced in the two more specific models where it shows that compared to 2006, people were more likely to want to change jobs within the federal government and less likely to want to leave government (Tables 6 and 7). When comparing people who wanted to move within government to people who wanted to stay in their current jobs, people were between 2.2 percent more likely to want to change jobs (2008) and 4.0 percent more likely to want to change jobs (2010) compared to 2006. In contrast, compared to 2006, the likelihood of wanting to leave government was only significantly different in 2010 and 2011, when the likelihood of wanting to leave was 1.9 percent lower in 2010 and 1.5 percent lower in 2011 (see Table 8: Marginal Effects).

This may be attributable to a more volatile political environment inside government driving people to want to change jobs, but recognition of the weak economy pushing people to choose to seek new jobs inside of government rather than leaving the security of the federal workplace is also plausible. During interviews, many of the participants expressed a willingness to absorb increased frustrations during the recession because they were thankful to have their jobs and have security. All of the findings were statistically significant except for the difference

in the likelihood of wanting to leave government between 2006 and 2008. This may be because of the short time horizon or because 2008 was before the great recession hit.

While not directly asked about whether time was a factor, many interviewees referenced changes over time. Some cited differences in terms of the larger political environment saying that over the last decade, increased contentiousness has led to changes within agencies such as more rigid hierarchies controlling careerist outputs, and projects being cancelled (Interviews 10/16/13, 3/28/14, 4/8/14). These stories are consistent with the open systems propositions of Burns and Stalker (1961) and Hannan and Freeman (1977), as well as Durant (2007), who posited that the stability or lack thereof of a system impacts organizational form and structure.

Interviewees also acknowledged that their feelings about their jobs were influenced by the broader economic environment. When discussing the three year federal pay freeze followed by a one percent increase, two respondents noted that they were glad to have their federal jobs during the economic downturn, and were glad to do their part in controlling government costs by having their pay frozen. However, as time passed, they felt that continued pay freezes with increased expenses such as health insurance and cost of living made it unreasonable. One person said in reference to the political world freezing federal pay,

“The only reason that I’m aware of for why they are treating us so poorly is just to make an example of us. The first couple of years, when the economy was really bad, I felt ok. There were all of these people out there in the hinterlands that were losing their jobs. So yes, I’ll do my share. But now the economy has improved, and I’m still doing my share to keep costs down, and that’s not fair” (Interview 12/23/13).

This suggests another interesting point about the influences of time. What is a tolerable frustration at one point in time (e.g. the first year of pay freezes after the economy crashed)

becomes intolerable at another point in time (e.g. three years later as the economy stabilized). Thus, future research needs to look not only at turnover intent at one point of time, but also to ascertain the cumulative effects over time. Both interview and quantitative findings support my hypothesis that turnover intent changes over time.

Satisfaction Measures

Job Satisfaction

Hypothesis 3: The greater the level of job satisfaction, the less likely careerists will be to express turnover intent.

Both the general model exploring changing jobs from staying, and the more specific models distinguishing moving within government from leaving, confirm my hypothesis that increased job satisfaction correlates with people being less likely to want to change jobs (see Tables 5, 6, and 7). In fact, marginal effects show that job satisfaction has a greater impact on turnover intent than any other variable in the models (see Table 8). Increasing job satisfaction by one point on a five point scale decreases the overall likelihood of wanting to change jobs by 7.3 percent, the likelihood of wanting to leave government by 2.4 percent, and changing jobs within government by 6.5 percent (see Table 8). This finding is consistent with the literature's general finding that higher levels of job satisfaction correlate with decreased expressions of turnover intent (Mor Barak, Missly, & Levin 2001; Dalton, Johnson, & Daily 1999; Podsakoff, LePine, & LePine 2007). Interviewees were not directly asked about job satisfaction, but instead were asked about more specific internal organizational and management factors such as pay and supervisor satisfaction.

Pay Satisfaction

Hypothesis 4: The more satisfied careerists are with their pay compensation, the less likely they will be to want to leave the federal government. However, pay satisfaction will not matter in decisions to change jobs within the federal government.

Remembering that the findings for the relationship between pay and turnover intent are mixed in the literature (for examples see Langbein 2009; Pitts, Marvel, and Fernandez 2011; and Whitford and Lee 2011), my findings, consistent with my hypothesis, tell two separate stories. They show that pay is a significant factor for the choice to leave government, but not for the choice to move within government. In my model, asking only if people want to change jobs regardless of where they want to go, people who are happier with their pay are less likely to want to change jobs (Table 5). A one-point decrease in pay satisfaction on a five-point scale increases the likelihood of wanting to leave the federal government by 1.2 percent (see Table 8). However, in the two more specific models, pay was not a significant factor in wanting to move within the federal government, but was significant in the desire to leave government where those who were less satisfied with their pay were more likely to want to leave (see Tables 6 and 7). A one-point decrease in pay satisfaction (out of five) correlated with a 1.4 percent increase in the likelihood of wanting to leave government (see Table 8).

Interviewees had mixed feelings about the importance of pay as well. Some said pay was a reason to leave federal jobs, and others cited good pay as a reason to stay in federal service. Answers seemed to depend upon job alternatives and education levels. Those that were lawyers or Ph.D. scientists felt that they would be far better compensated in the private sector, but made the trade-off for lower pay because of commitment to mission and quality of life. One lawyer reported that even though the compensation scale for lawyers is different than for the standard GS system, lawyers quickly hit the top of the pay scale, leaving no room for financial

advancement. Because capped pay prevents salary increases, the interviewee felt that people were reluctant to take on additional managerial responsibilities (Interview 1/17/14).

An interview with a careerist in an agency using a pay for performance system discussed the same problem with people hitting caps. In that respondent's agency, top performers quickly maxed out while poor performers increased more gradually (Interview 3/25/14). Quickly reaching pay ceilings, the need to payoff student loans, financial demands from families, and availability of more lucrative job options were cited as reasons for careerists with the highest levels of education to leave government (Interviews 1/17/14, 3/29/14, 10/25/13).

On the other hand, people with undergraduate or master's degrees felt that they were well or at least fairly compensated. One person with a master's degree said that pay, "...keeps people in government at least at the level I'm at, and with the people I know. I think most would tell you that we are paid pretty well. We are comfortable doing the work we enjoy doing. I think that tends to keep people in government, at least at higher levels. Maybe you could make more money if you went outside in the private sector, but you also would have less job security" (Interview 4/1/14).

Multiple people also noted that pay functioned differently in the DC metro area than in other regions. One felt that in regional offices, federal pay was higher than other opportunities, making those jobs prized. Yet another pointed out that regional offices tend to have lower GS levels, with jobs at a GS 13 and above being few and far between. This interviewee also felt that a scientist in a regional office at a GS 12 would easily be a GS 14 doing the same work if they worked in DC (Interview 3/25/14). Another person who had worked both in regional offices and the DC area said that people in regional offices often tried to move to DC for the last years of their careers to increase their income so that their retirement payments would be higher.

(Interview 11/5/13). This presents another element that offers opportunities for future research, supporting my broader contention that environmental factors are important, and that pay functions differently based on other factors.

Consistent with Abbasi and Holman's (2000) work identifying that people subliminally use pay and pay increases as a measure of self-worth, respondents delineated literal aspects of pay from symbolic attributes of pay. In the few stories told of people leaving government based on pay, it was because of personal financial demands or readily available private sector jobs where pay was significantly higher, not symbolic reasons such as feeling that their work isn't valued.

But the majority of interviewees did voice frustration over the message being sent to them about their value from three years of pay freezes followed by a one percent increase, and a freeze on bonuses. In the words of one respondent,

"It is disrespect. They are saying you don't value me. It is a feeling of not being respected and valued among people I see. If you are getting enough strokes from what you are doing, that may work like discovering a polio vaccine, but most federal employees do not have that. Even little pay raises were a pat on the back. Now they have taken bonuses away. You don't have a pay raise, you don't have a bonus, you don't get a step increase" (Interview 11/5/13).

Another person described the pay freeze as "demoralizing" (Interview 12/23/13) and yet another felt that while she was able to give bonuses averaging one percent to her group, the small amounts of the bonuses after taxes actually made them insulting (Interview 4/8/14).

Merged into people's concepts of pay were concepts of fairness and transparency. While most felt that pay freezes were unfair, others thought that as long as everyone was treated the

same, it was acceptable. One person did not think that pay would be an issue, given that pay scales are public, people know how it works when they enter government, and that it was clear what one needed to do to move ahead (Interview 3/20/14).

Of note, when asked to consider examples of people whom they knew had left government, very few people told stories of people who left because of pay. In those cases where people did leave for pay, more than half of the examples described the person who left as using their experience to start their own consulting firm or business. It is possible those who left because of pay were more entrepreneurial than others. I was also given an example of someone who was offered a higher paying job by a close colleague and friend who had started his own firm. The interviewee turned down the offer to leave because she felt so connected to the mission of her work and truly enjoyed her job (Interview 3/7/14).

Supervisor Satisfaction, Group Cooperation, and Organization Satisfaction

Hypothesis 5: The higher the level of careerist satisfaction with their supervisor, the less likely they will be to want to change jobs.

Hypothesis 6: The higher the level of careerist satisfaction with their work group, the less likely they will be to want to change jobs.

Hypothesis 7: The higher the level of careerist satisfaction with their organization, the less likely they will be to want to change jobs.

My findings indicate that people who are dissatisfied with their supervisor are more likely to want to move jobs within the government, but not more likely to want to leave government (see Tables 6 and 7). The general model shows that dissatisfaction with one's supervisor is correlated with wanting to change jobs, where a one point decrease in supervisor satisfaction increases the likelihood of expressing turnover intent by 1.8 percent (Tables 5 and 8).

The two models that make the distinction between future job preferences find that supervisor satisfaction is significant among those who are considering moving within government (a one-point decrease in supervisor satisfaction increases the likelihood of wanting to move by 2.1 percent), and supervisor satisfaction was not significant in the desire to leave government (see Tables 6, 7, and 8). While early studies found that there was no relationship between poor supervisor relationships and career change decisions (Mobley et al. 1979), later work indicates that the relationship with supervisors matters in both job satisfaction (Kristof-Brown, Zimmerman, and Johnson 2005) and turnover intent (Pitts, Marvel, and Fernandez 2011). My findings may indicate that dissatisfaction with one's supervisor prompts people to want to change jobs, but does not alter people's perceptions of working for the federal government enough to drive them to leave government. Rather, they take the more conservative approach and wish to move within government. In a situation where people have the option to move within their organization, they will move instead of leaving altogether.

My models show different findings on the importance of work groups. The binary model with a simple choice between staying and moving/leaving shows that the less people feel that their coworkers cooperate, the more likely they are to want to change jobs (see Table 5). However, the marginal effects show that this finding is not substantively meaningful, with a one point decrease in believing that coworkers cooperate only yielding a 0.4 percent increase in the likelihood of wanting to change (see Table 8). The two specific models show that there is no statistical difference between those who want to stay in their jobs and those who want to leave government (see Table 7). Moreover, while the relationship between coworker cooperation is statistically significant among those who want to move within government, it is substantively weak, as a one-point decrease in coworker cooperation correlates with a 0.4 percent increase in

wanting to move within government (see Tables 6 and 8). This suggests that the findings in the general model and the model for moving within government are weak and dependent on large sample size. The literature found mixed support for group-fit or satisfaction impacting turnover intent (for examples of support see Kristof 1996; Kristof-Brown, Zimmerman, and Johnson 2005; Bertelli 2007. For examples where group-fit or satisfaction was not significant see Mobley et al. 1979; and Pitts, Marvel, and Fernandez 2011). Overall, my findings for the importance of group fit are inconclusive.

While my findings for supervisor satisfaction and coworker cooperation varied based on future job preference, organizational satisfaction yielded clear results consistent with my expectations. Lower satisfaction with one's organization in the general model and the specific models correlated with a higher likelihood of wanting to change jobs either by moving within government or leaving government (see Tables 5, 6, and 7). In these three models, a one-point decrease in organization satisfaction correlated with an increase in the likelihood of wanting to change jobs by 2.8 percent, move within government by 2.3 percent, and leave government by 1.1 percent (see Table 8).

During interviews, many people reported that they had moved within the federal government because of poor supervisor relationships or knew people who had left for that reason, but most of those same people said that while coworkers were a source of frustration, they were not a reason for leaving. One respondent told a story of two coworkers who sat next to each other who refused to speak to one another for multiple years after a bitter feud (Interview 12/23/13). There were also respondents that felt that coworker relations were relevant in the choice to move within government. It should be noted that in cases where coworker relations were considered a reason to leave, interviewees did not differentiate between coworkers and

supervisors, and vice versa. For example, they spoke in terms of the culture of the immediate work group including their supervisor.

Other interview data supports this finding as well. Interviewees described a process of moving from department to department and agency to agency to find an overall culture that they preferred. That being said, in these stories, a respondent's like or dislike of an agency often had as much to do with mission as with organizational culture. It is possible that among other aspects, personal belief in organizational mission is captured in the FedView's question on satisfaction with the organization. At one point, one interviewee talked about being satisfied in her job in public health because of widespread public support for her agency's mission. At another point in the interview, she discussed leaving a job at the Department of Defense because of its mission and culture. She discussed how her work was the same at different departments, but while at Defense, "I didn't like working for the defense machine. The whole defense mentality was something that I was never comfortable with" (Interview 12/23/13).

Advancement Opportunities

Hypothesis 8: The higher the level of careerist satisfaction with their opportunities for advancement, the less likely they will be to want to change jobs.

All of the findings confirm my hypothesis that the higher the level of people's satisfaction with opportunities for advancement, the less likely they will be to want to change jobs. My models all confirm that those who want to change jobs (both moving within government and leaving government) are less likely to be satisfied with their opportunities for advancement than those who want to stay (see Tables 5, 6, and 7). In the general model, a one-point decrease in satisfaction with advancement potential increased the likelihood of wanting to

change jobs by 4.2 percent. The same one-point change increases the likelihood of wanting to move within government by 4.0 percent and leave government by 0.9 percent (see Table 8).

Interviews indicated that the connection between wanting to leave and being dissatisfied with opportunities for advancement is a function of agency cultures and the personnel system. In many agencies, respondents reported that the only way to move forward was to change jobs and that the agency promoted movement every few years. People often viewed this as a benefit of working for the federal government. They felt that the structure promoting movement gave them a chance to learn new things and keep their jobs interesting by facilitating new experiences. However, most people that reported this also quickly pointed out that they knew people who had happily stayed in their current roles for decades.

Other agencies did not encourage as much movement. One person said that while conducting an exit interview, she was told, “I don’t see a future here. I can continue and do this as long as I want to, but there is not career path for me. If I want to stay stagnant, I stay here, and if I want to actually do anything else, I have to go outside of government” (9/11/13). The ability to move is not consistent agency-wide either. Some professions such as budget analyst or IT professionals had more mobility within agencies than scientists whose research was more specific.

Some said that the structure of the personnel system made it extraordinarily difficult to change someone’s job description, so they could not move to a different grade without changing positions. Many said that one could quickly move through the system and get to a GS 13 level. However, promotions beyond that were extremely rare and required taking a management role.

Intrinsic Motivation

Hypothesis 9: The higher the level of careerist satisfaction with measures of intrinsic motivation, the less likely they will be to want to change jobs.

Contrary to Cho and Perry's (2011) findings, none of my quantitative models found any support for my hypothesis that those who were more satisfied with factors of intrinsic motivation would be less likely to want to change jobs (see Tables 5, 6, and 7). This finding becomes more complex when paired with feedback during interviews. While most respondents said that a commitment to public service was an important part of their jobs, that commitment was triggered in different ways. People who entered federal service with a master's degree or above, felt that they had made a conscious decision to serve the public and were less motivated by other factors such as pay. On the other hand, people that entered with less education, regardless of whether they completed masters and doctoral degrees later, did not enter because of intrinsic motives or public service. They reported that they started out because federal jobs were good, stable jobs that they happened to come across usually by some personal connection referring them to federal service as an option or an internship.

Unfortunately, the FedView Survey does not include measures of education. But regardless of how important or unimportant intrinsic motivators were at the beginning of their federal careers, interviewees almost universally took pride in working for the public good. However, they did not cite any examples of people changing jobs because they were not fulfilled in their desire to serve the public, or because they did not believe that their work was important. This indicates that commitment to public service at the beginning of one's career may vary based on education, but that agencies can foster the valuing of public service and mission. Over time, it appears that public service motivation becomes a source of esteem and a motivator perhaps influencing job satisfaction, but does not have a strong direct link to turnover intent.

Commitment to public service may be a reason to stay, but it doesn't appear to be a reason to leave. More research is needed to explore these relationships.

Goal Clarity

Hypothesis 10: Those who experience greater goal clarity will be less likely to want to change jobs.

My findings for the connection between goal clarity and turnover intent were unexpected and did not support my hypothesis. In the general model asking only if people wanted to change jobs in the next year, people who had a better understanding of how their work contributed to the agency mission were more likely to want to change jobs (a one-point increase of understanding on a five-point scale increased likelihood of wanting to change by 1.0 percent) (see Tables 5 and 8). When I divided those who wanted to change into those who wanted to move within government and leave government in the two more specific models, the same finding held for people wanting to move within government. Here a 1.1 percent increase in the likelihood of wanting to change jobs occurred with every one-point increase in understanding how work contributed to agency goals. The greater their understanding of the link between their work and agency mission, the more likely they were to want to change jobs inside government. On the other hand, the connection to agency mission did not have a significant impact on the choice to leave government. One can posit that the lack of connection between mission and leaving government makes sense if people believe that government is the best place to work towards a specific mission or goal. Alternatively, mission may have never been important to many of those who consider leaving government.

Interviews also suggest a different story about why those who understood how their work supported agency mission were more likely to want to move within government. Those jobs

where the link to mission was most direct (e.g. policy analyst), were also the most politicized jobs within agencies. When a crisis hit, or an initiative needed to get off of the ground, it was these people who were on the frontline to work long hours and often quickly change course when the political winds shifted. People in supporting roles such as procurement generally had more stability in their workloads and work content. Time and again, when discussing major crises or political pushes, people discussed how careerists burnt out. When discussing a large surge in agency activity, one person said, “I think it can be a huge opportunity to move forward the mission of your office. From the standpoint of your work life, it can be very taxing. I’ve watched colleagues just get burnt out and tired because it is so much responding to the political... and not necessarily working to improve things. It can be very, very frustrating” (Interview 4/8/14).

The question of goal clarity and turnover intent requires future research because there are numerous alternative explanations to consider posed in the literature. For example, in 2012, Cho and Perry explore the interaction between intrinsic motivation, goal directedness, managerial trustworthiness, and extrinsic reward expectancy. They find that these factors work together to influence job satisfaction and turnover decisions (Cho and Perry, 2012). Also along these lines are Chun and Rainey’s (2005) concepts of goal clarity where people may be interpreting “mission” differently or confusing mission with objectives. In more political terms, people may know the mission and not like the ideological shifts in priorities (see the literature on the administrative presidency). Lastly, the connection to goal ambiguity may have roots in goal stability as a result of the political environment.

Ability to Innovate

Hypothesis 11: The more careerists agree that they are encouraged to innovate, the less likely they will be to want to change jobs.

My models provide weak support for the hypothesis that people who feel encouraged to innovate are less likely to want to leave the government, but do not suggest that innovation matters in the decision to move within government (see Tables 6 and 7). The general model asking only if people wanted to change jobs regardless of future job found that innovation was a significant factor in changing jobs (see Table 5). However, a one-point decrease (on a five-point scale) in satisfaction with innovation only yielded a 0.4 percent increase in wanting to change jobs (see Table 8). In the more specific models, innovation did not matter in the choice to move within government, but did matter in the decision to leave government. Again, while the finding was significant for the decision to leave government, it was weak with a one-point decrease corresponding with a 0.5 percent increase in the likelihood of wanting to leave government (see Table 8).

In talking to interviewees, they (sadly, in my judgment) did not expect innovation to be part of working for the federal government. While they appreciated efforts to promote innovation, they were cynical about the ability of any innovation to survive the bureaucratic process. One person said, “I think that for the most part, innovation is not here. They know that things are established and you are to fit in that system. Some people are fine with that. Others have new ideas and want to bring it to the front of the office. They are the ones that are frustrated. For the most part, people are fine with fitting in that system.” People did tell stories of coworkers leaving because they were frustrated with the bureaucracy limiting their ability to be creative and accomplish their work. This finding is consistent with a recent Partnership for

Public Service report on the need for nurturing and rewarding greater innovation in the federal government (Partnership for Prevention, 2014).

Demographics

Leadership Role

Hypothesis 12: Those with greater leadership responsibilities will be more likely to want to change jobs.

All of the models show that people with greater leadership responsibility are more likely to want to change jobs than those with no supervisory role (see Tables 5, 6, and 7). The impacts shift as responsibility increases as well. Regardless of whether someone wants to move within government or leave government, supervisors are slightly more likely to want to change jobs than non-supervisors, and managers/executives have an even greater probability of wanting to change jobs. Supervisors are 2.3 percent more likely than non-supervisors to want to change jobs, 1.7 percent more likely to want to move within government, and 3.6 percent more likely to want to leave government. Showing even higher probabilities of wanting to change, managers and executives were 6.0 percent more likely to want to change jobs than non-supervisors, 3.7 percent more likely to want to move within government, and 3.8 percent more likely to want to leave government. (see Table 8)

Interviews suggested two possible explanations for the increase in turnover intent among management staff. The first is that non-managers are often promoted into management roles because it is the only way to get to the next grade in their organization, leaving people who do not really want to be managers in a management role. For example, on putting scientists in management roles, one person said, “Scientists are scientists, not managers. When you put scientists in the place of a manager, it’s complicated because we were not trained to be

managers. We are trained to be scientists and that is a fact. That is a problem that you see all of the time” (Interview 10/16/13). In these cases, people reported that managers felt disconnected with the work they wanted to do, substituting administrative paperwork and addressing complicated relationships and poor performers for the more technical work they are trained for. They also reported that their hands were tied as to how much they could change or do under the federal personnel system. The challenges of managing when one has little ability to fire or move staff gave people a sense of futility. In fact, multiple times, interviewees turned to me and asked if I had heard of any good ways to deal with difficult employees in the federal system. Sadly, they generally concluded that it was more productive for their group to limp along with a poor performer than for managers to spend time trying to reform or remove them.

The second explanation for higher turnover intent among people in leadership positions is that managers consider themselves the buffer between careerists and the political world and work to insulate their staff from the push and pull of political demands. In doing so, they absorb the stress of the political environment to protect their staff. On discussing the interaction between the political world and careerists, one senior level manager said,

“When the Secretary has asked for this, or a Senator has asked for, or somebody from the media just called asking this question, you have to stop working on your new data and process something from a year and a half ago to put something out. That is the kind of swirl that we cannot avoid. Then there are all of these other things where people are getting speculative about policy and other things. We (senior management) are trying to keep those, and the career staff knows how to say stay over there, say “here is what you need to know about us”, and when we know that it is not just one person’s whim, we are ready to be part of the discussion. Keep that buffer in place” (Interview, 4/3/14).

This strain is further complicated when staffing is limited and FTE counts are stagnant. This is a direct influence from the political world as OMB and agency heads set these numbers. Many people reported frustration with having the money to hire people, but not the FTE allotment. Interviewees had mixed impressions of whether they could hire the right new people and whether they could refill positions when people left. One person reported that his office hired about one person for every three that retired (Interview 4/3/14). Another said that because of so many applicants with veteran's preference, when he tried to hire a contractor who had been working for his office for five years, the contractor did not make the list of people to interview (Interview 3/25/14). In general, managers reported that navigating the byzantine personnel hiring process was an art form in itself that took time and practice to master.

Federal Tenure

Hypothesis 13: Length of federal tenure will have varying impacts on exit decisions. Overall, the longer careerists have worked for the federal government, the less likely they will be to want to change jobs. However, as tenure with the federal government increases future career preferences will also change. Those with the least amount of tenure will be the more likely to want to leave the federal government, and those with more tenure will seek another federal job.

The data did not support my hypothesis that as people spent more time in the federal government they would be less likely to leave the federal government and substitute moving within the federal government for leaving government. Instead, I found that over time, people were both less likely to leave government and less likely to change jobs within government (see Tables 6 and 7). The marginal effects for the three models show that a one category increase in tenure decreased the general desire to change jobs by 1.5 percent, the desire to move within government by 1.1 percent, and considering leaving government by 1.0 percent (see Table 8).

The categories included different lengths of time from 0-3 years, 4-5 years, 6-10 years, 11-20 years, and more than 20 years.

Interviewees did not discuss a difference in moving within government over time, but did say that it became harder to leave government. They felt that the stability and security that the federal government offers played an increasingly important role in their decision making as time passed. And many under old retirement systems said that one would have to have an incredibly bad experience to walk away from the retirement benefits under the old plan. Clearly, though, the importance of this question for future hiring and strategic human resource management means that it merits further exploration in future research.

Age and Gender

While age and gender were not the focus of my research, an interesting finding regarding gender emerged. In the general model, women were 1.9 percent less likely to want to change jobs than men, but the story changed a bit when moving to the more specific models. There was not a significant difference between women and men in the desire to change jobs within the federal government, but women were 2.2 percent less likely to want to leave government (see Table 8).

During my interviews, multiple women said that the government was a good place to work for women because they did not experience the same kinds of discrimination that they had seen in the private sector, and because they saw many women rising through the ranks into leadership roles. Some women also expressed that it afforded them flexibility and stability that was important to them while their kids were young. These findings are in contrast to traditional perspectives asserting that women are more likely to want to quit, but consistent with the 2008

finding of Moynihan and Landuyt (see their article for a fuller discussion of research on the relationship between gender and turnover).

Additionally, demographic variables that are missing from this study are race and education. The FedView survey categorizes race differently from year to year, making it impossible to merge them into consistent categories, and does not ask questions about education. This, again, is unfortunate given the importance of the hiring and retention of minorities for passive and active representation purposes and begs for future research.

Conclusion

The findings reported in this Chapter show a number of important keys to the discussion about how the political world can influence the career choices of careerists. Table 9 presents a summary of all of the hypotheses tested here and whether my quantitative data supports them. I find that agency differences persist when controlling for internal organizational factors in my general stay/go model and in the model differentiating between staying and moving within the federal government. However, those differences fade or disappear in my model comparing people who want to stay to people who want to leave government entirely.

Table 9. Summary of Hypotheses Tested

	Stay/ Go	Stay/ Move	Stay/ Leave
1. After controlling for variables traditionally linked to turnover intent (demographics, fit, satisfaction measures, opportunity for advancement, self efficacy, and goal ambiguity), differences in agency and political environments will be associated with differences in turnover intent.	Yes	Yes	No
2. As political and economic environments are dynamic, careerist turnover intentions will be different from year to year, offering opportunities and constraints for turnover.	Yes	Yes	Yes
3. The greater the level of job satisfaction, the less likely careerists will be to express turnover intent.	Yes	Yes	Yes
4. The more satisfied careerists are with their pay compensation, the	Yes	Yes	Yes

less likely they will be to want to leave the federal government.			
However, pay satisfaction will not matter in decisions to change jobs within the federal government.			
5. The higher the level of careerist satisfaction with their supervisor, the less likely they will be to want to change jobs.	Yes	Yes	No
6. The higher the level of careerist satisfaction with their work group, the less likely they will be to want to change jobs.	No	No	No
7. The higher the level of careerist satisfaction with their organization, the less likely they will be to want to change jobs.	Yes	Yes	Yes
8. The higher the level of careerist satisfaction with their opportunities for advancement, the less likely they will be to want to change jobs.	Yes	Yes	Yes
9. The higher the level of careerist satisfaction with measures of intrinsic motivation, the less likely they will be to want to change jobs.	No	No	No
10. Those who experience greater goal clarity will be less likely to want to change jobs.	No	No	No
11. The more careerists agree that they are encouraged to innovate; the less likely they will be to want to change jobs.	Weak	No	Yes
12. Those with greater leadership responsibilities will be more likely to want to change jobs.	Yes	Yes	Yes
13. Federal tenure will have varying impacts on exit decisions.	Yes	No	Yes
Overall, the longer careerists have worked for the federal government, the less likely they will be to want to change jobs. However, as tenure with the federal government increases future career preferences will also change. Those with the least amount of tenure will be the more likely to want to leave the federal government, and those with more tenure will seek another federal job.			

Questions of time also yielded interesting findings. The five years used in this study represent different political and economic conditions. In my general binary logit model, the probability of wanting to change jobs was significantly higher for every year compared to 2006. The story is more complex, however, when the next two models distinguish between leaving and moving within government. In this case, people are still more likely to want to move within government in every year compared to 2006. However, there is no difference between 2006 and 2008 in wanting to leave, and people are less likely to want to leave from 2010 on.

When testing for variables traditionally linked in prior research to job satisfaction and turnover intent, all of my measures were statistically significant in the first general binary logit

model, except for intrinsic motivation. The picture becomes more nuanced when the distinction is made between leaving government and moving within government. Increased satisfaction with one's job, organization, and opportunities for advancement always correlate with decreased likelihood of wanting to change jobs or leave government. Similarly, people with lower leadership roles, longer tenure, and older people are less likely to want to change jobs.

Two factors that were not relevant in either wanting to move within government or leave government were intrinsic motivation and coworker cooperation. Variables that mattered for leaving government, but not moving within government, were satisfaction with pay, the ability to innovate, and gender - with women less likely to want to leave government. In contrast, some variables were significant for wanting to move within government, but not in leaving government. These included supervisor satisfaction, and understanding how one's work contributed to agency goals. Interestingly, people who had a better understanding of how their work contributed to agency goals were more likely to want to move within government.

In sum, my analysis has offered a robust set of findings that are thought provoking, and should be of interest to practitioners and scholars alike. That said, in Chapter 6, I further discuss these findings, assess the congruence of my interviews with them, and indicate what my interviews suggest about explaining them. In the process, I will discuss the implications of the findings for practice, future research, and theory building.

CHAPTER 6

INCORPORATING THE POLITICAL WORLD INTO OUR UNDERSTANDING OF CAREERIST LIVES

This study began with a simple idea; if one regards the work of government as fundamentally political, why do researchers so rarely explore how that political world impacts the lives of careerists and their career decisions? So much of the research on job choices is isolated to managerial and demographic variables inside of an organization. Understanding the impact of these internal elements such as pay, mission, and relationships with coworkers are in and of themselves important for managers in building retention plans. However, this approach ignores what the open system's literature makes so clear: organizations shape and are shaped by their environment, just as people shape and are shaped by their organizations. In the process, it also ignores all that we can learn from public administration and political science literatures on relationships between agencies/individuals and political actors including the White House and appointees, Congress, and interest groups.

My approach to studying turnover intent is novel in incorporating both internal and external organizational factors in an integrative theoretical framework, in deriving and testing a baker's dozen of hypotheses derived from that framework, and by relating those findings to interviews conducted with federal employees. My study is also unique in integrating three research approaches to explore turnover intent: archival research on agency political environments, statistical analysis of the Federal Viewpoint (FedView) Survey, and interviews with both careerists and political actors.

At a time when 60 percent of all federal workers and 90 percent of federal executives will be eligible to retire within a few years, when a deeply divided political environment with strained budgets exists, and when an economy that is stabilizing and may offer more job alternatives for

federal workers is likely in upcoming years, it is critical that we identify and give to managers the tools to retain the best federal workers (GAO 2007). The question is not how to promote overall retention, but how to promote controlled retention where managers can work to keep the most valuable staff members. These plans need to recognize that there is competition both from the private sector and other federal agencies for highly motivated careerists with invaluable skills and experience.

To do this, we need to incorporate an understanding not only of internal organizational factors but also how the pushes and pulls of the political world create unique agency environments and demands on employees that require more tailored strategies. Otherwise, we will continue focus our research efforts on what can be more easily measured internally, much as the proverbial drunk kept looking for his lost keys under the lamppost because that is where the best light is shown. Understanding the real sources of turnover intent, rather than convenient ones, also means that our efforts to improve the recruitment and retention of first-rate talent will be disastrously inadequate.

I approached this challenge using a comparative case study of four agencies within the U.S. Department of Health and Human Services: the Centers for Disease Control and Prevention (CDC), the Centers for Medicare and Medicaid Services (CMS), the Food and Drug Administration (FDA), and the National Institutes of Health (NIH). I used three methodological approaches. As noted, the first explored archival sources to understand the history of each agency, identify political issues receiving public attention from 2005 through 2013, and tracking measures of each agency's political environment. My second approach was to conduct a quantitative analysis of the FedView survey from 2006 through 2012 to understand the impact of traditional factors associated with people wanting to change jobs, and to see if agency and time

differences (indications of broader environmental variation) were still relevant once I controlled for these factors. My statistical analysis also differentiated between future job preferences to see if the choice to leave government was driven by the same factors that motivate people to change jobs within the federal government. The third piece of my research was to interview careerists and political actors both inside and outside these agencies to understand their perceptions of political environments and why people make career change decisions, to assess the congruence of these viewpoints with my statistical findings, and to help in the interpretation of my statistical findings.

So what are the implications of my study for practice, future research, and theory building on this important topic? In this chapter, I begin by providing a brief overview of each of the chapters leading up to this point. I will then discuss them with additional interview findings regarding the relationship between careerists and the political world. I will finish by discussing the limitations of this study, avenues for future research, and concluding thoughts regarding lessons for theory building and practice in this vitally important aspect of federal employment policy.

Overview of Chapters

Recall that in chapter 2, I drew from disparate streams of research to build a framework from which to view how the political environment filters into agencies and impacts people's career choices. I began by looking at research on the impact of turnover, and found that turnover is expensive to organizations in both the cost of training new people, lost institutional knowledge, and the blow to morale for people who stay (Partnership for Public Service & Booz Allen Hamilton, 2010; Cascio, 2006; Abbasi & Hollman, 2000; Yang & Kassekert, 2009; Moynihan & Pandey 2008). After establishing the cost of turnover, I found literature indicating

that turnover intent is an important step in the movement from frustration with one's job to actually leaving (Podsakoff, LePine, & LePine 2007; Mor Barak, Nissly, & Levin 2001; Dalton, Johnson, & Daily 1999).

I then moved to the traditional motivation literature exploring which factors inside of an organization influence people's choices to change jobs and job satisfaction. These include job, organizational, and individual characteristics (Ting 1997). This literature produces a long list of factors influencing how people perceive their jobs including organizational commitments (Romzek, 1990; Ting 1997), connection to agency mission (Rainey & Steinbauer 1999; Moynihan & Pandey, 2007), and job growth (Sigel, 1999). One place where the literature had mixed findings was on the relevance of pay as a determinant of satisfaction or changing jobs (Whitford & Lee, 2011; Pitts, Marvel, & Fernandez, 2011; Langbein, 2009). This literature also incorporated concepts of "fit" with one's job, team, supervisor, and organization (French & Kahn, 1962; Harris 1985; Edwards, Caplan, & Harrison, 1998; Mobley et al. 1979; Kristof, 1996; Kristof-Brown, Zimmerman, & Johnson, 2005). Another area of inquiry with mixed results was managerial status, where some found that managers were more satisfied with their jobs (Yang & Kassekert, 2009; deLeon & Taher, 1996), but others found that managers were less satisfied (Rubin, 2000). Measures of intrinsic motivation such as those used by Bertelli (2007), and Cho and Perry (2011) are also considered determinants of job satisfaction and expressing a desire to change jobs.

I next examined the open systems literature as a bridge from the internal operations of an organization to the larger environment. The concept of open systems is that there is an endogenous relationship between an organization and its environment where the environment impacts an organization and an organization in turn, impacts the environment (Burns & Stalker,

1961; Hannan & Freeman 1977; Scott, 1961; Katz & Kahn 1966, Mintzberg, 1983). In this approach, characteristics such as the stability of a system impact organizational form and structure (Burns & Stalker, 1961; Hannan & Freeman, 1977), which in turn, can impact job satisfaction and turnover intent.

When looking at an agency as part of an open system, the next step was to explore the actors that define a federal agency's environment. In this, I looked at the literature on Congress, interest groups, the administrative presidency, and the careerist-appointee nexus in the federal government. The congressional literature explores what triggers oversight and how Congress uses relationships and tools to monitor/control agency behavior (McCubbins & Schwartz, 1984; MacDonald, 2007; Aberbach, 1990; Epstein & O'Halloran, 1995). The literature on interest groups discusses the power dynamics between business interest and advocacy groups, how interests adjust their approaches and interaction with the bureaucracy based on political climate, and whether agencies are responsive (Baumgartner & Leach, 1998; Kraft & Kamieniecki, 2007; Gordon and Hafer, 2005; Smith, 2000; Witko, 2006). The key to the administrative presidency literature, I noted, is that presidents use their administrative powers in regard to management functions to influence policy through the bureaucracy and control the bureaucracy (Nathan, 1983; Durant 1992, 1998, and 2009; Rockman 2009; Durant and Resh, 2011; Aberbach & Rockman, 2009; Lewis 2003 & 2008). Finally, appointees are brought into an organization to support the president's goals, but they also have their own agendas including policy objectives and career growth requiring that the White House monitors their behaviors (Aberbach & Rockman, 2009; Lewis, 2009). Appointee relationships with careerists also were covered, given their potential impact on turnover intent. Differences can stem from ideological divides, management approaches, and trust (Maranto & Hult, 2004; Auer, 2008; Golden, 1992; Garrett et

al. 2006; Lewis, 2008). Importantly, the point here is that all these factors potentially have both direct and indirect effects on turnover intent that have not been explored explicitly or to the degree they merit in prior research.

I then used all of the literature described in chapter 2 as a foundation for the case study of the four HHS agencies. Chapter 3 discussed the history, major issues from 2005 to 2013, and measures of each agency's political environment. For each agency, I gave an overview of its history, major events from 2005 to today, and an assessment of its political environment based on measures of the political world. The major conclusions were twofold: (1) Each agency presented a unique relationship with the political world, and thus exhibited varying levels of stability or turbulence over time and across measures, and (2) statistical measures were too fluid, episodic, and internally inconsistent to be interpretable in a statistical analysis.

For example, when looking at measures of CDC's political environment, *New York Times* coverage and presidential attention spike at the same time that salient issues related to the agency emerge including a pandemic flu outbreak. Other measures show a stable environment with little politicization. CDC had the lowest appointee-careerist ratio, the budget grew modestly, and federal register documents were steady. An interesting show of support from the political world was an increase in FTEs. CDC was the only agency in my study where the number of FTEs grew at a faster rate than the budget. CDC also had the lowest turnover intent of any of the agencies in my study. This correlates with its low politicization and is consistent with Lewis' 2008 proposition that agencies with a techno-scientific emphasis are the least politicized.

Political measures of CMS's environment tell the story of the ACA. The number of bills introduced in Congress peaked in the 2009-2010 when legislation was considered that became the ACA, in the next session (2011-2012) testimony spiked where they discussed the ACA, the

number of Federal Documents peaked in 2012 with ACA regulations, and *New York Times* coverage of CMS skyrockets in 2013 with coverage of CMS's botched ACA implementation. Most notable in the politicization of CMS is that the agency had 0.22 percent of its workforce as appointees in 2008 and 0.33 percent in 2012, showing that President Obama increased the number of appointments in the agency during this contentious period. The year 2006 also marked an increase in political attention with implementation of the Medicare Prescription Drug Program, showing a large increase in agency budget and *New York Times* articles. CMS's budget also increased far faster than its FTEs, showing that the agency is either relying more heavily on contractors or asking more of existing staff with a 57.8 percent increase in budget and only a 13.7 percent increase in FTEs. I expected based on politicization for either CMS or FDA to have the highest turnover intent. However, CMS was the second lowest after CDC. This may be explained by its physical location. While CMS is close to Washington, DC, it is far enough away that the number of other federal jobs available without moving is limited. CDC employees have very few federal options outside of the agency. However, it is also possible that CMS effectively buffers the majority of staff from the political world.

In the case of the ACA, the Obama administration was also criticized for keeping the decisions held inside a small group of appointees in the White House, OMB, Office of the Secretary of HHS, and CMS. CMS's turnover rates may also be changing over time and pressures of the political world may appear in 2013 and 2014, given that the agency struggled with implementation. When I look at CMS's turnover intent by year, I see that the highest turnover intent happened in 2008 (25 percent compared to a low of 20 percent), when health insurance reform was at the center of presidential election debate. CMS employees may have been anticipating a changing dynamic based on either then-Senator Obama or Governor

Romney's propositions. But most likely, the Great Recession was making turnover intent less attractive to employees—satisfied or dissatisfied—across the entire federal government other than in national security agencies where most growth has taken place.

The FDA's story is one of a pendulum swinging from consumer protections to supporting industry. While FDA staff did not view political support as being highly partisan, the FDA budget shows fairly flat levels during the Bush administration, then steady growth under President Obama. Agency responsibility also grew during this period with FDA regulation of tobacco, and new regulations needed after the January 2011 passage of the Food Safety and Modernization Act. FDA saw the largest increase in budget and FTEs during the period with budget growth of 77.4 percent excluding user fees and 112.8 percent with user fees, and a 35.5 percent growth in FTEs. I also noted that like CMS, budgets grew at a faster rate than FTEs. The appointee-careerist ratio did not significantly shift during this period. As one of the two most politicized agencies, I expected FDA to have one of the highest turnover intents. FDA was the second highest. FDA did show a great deal of change in measures of agency politicization, and it also shows that it has received more resources in the current administration than in the previous one.

This leads me to question whether in a case where attention is largely focused on expanding an agency's mission relative to role and resources, turnover intent is reduced because people enjoy being on a "winning team". When I explore turnover intent for FDA by year, I see that turnover intent was almost 20 percent in 2006 and 2008, then dropped to 18 percent in 2010, and 16.5 percent in 2011. Overall agency turnover intent returned to 20 percent in 2012. This may reflect tough economic conditions in reduced turnover intent during the Great Recession, but it may also reflect increased political support for the agency.

The NIH's history is one of waves of political support and growth, followed by eras of stability, and then returning to rapid growth. From 2005 to 2012, all of the measures of the political environment show steady lines except for an enormous spike in funding in 2009 reflecting stimulus funds. As a politically popular grant-making agency, NIH was tapped to quickly distribute stimulus funds to combat the Great Recession. As the second least politicized agency in my sample, I expected NIH to have comparatively lower turnover intent than CMS and FDA. However, NIH had the highest turnover intent rate. This could stem from three different factors. The first is that its lack of growth reflects waning political support and individuals are moving to places where resources are growing. The second is that while the agency as a whole is not very politicized, the distribution of resources within the agency is more contentious and reflects changing power dynamics that cause disgruntlement and stress-related uncertainties for employees. In a time of tight budgets, people may be moving to areas where their work is better supported in terms of resources. Interviewees also indicated that changing jobs was the only way to move ahead inside the agency so that a lack of opportunity for advancement forced motivated people to change jobs.

In Chapter 3, I also showed how each agency maintains a unique relationship to the political world where they must adapt to navigate their political environment. All of the agencies are subject to sudden and dramatic increases in political attention. Some of this attention is the result of the natural world (outbreaks and natural disasters), some is core to the political nature of programs (Medicare and Medicaid), some is about finding the right balance between interests (regulatory programs), and some of these spikes of attention are about the public support and programmatic structure (grants at NIH).

The political measures of agencies show a shifting political arena where, as in CMS's example of the ACA, an issue will move through the stages of the policy process, with spikes in different arenas along the way. By looking at these measures in aggregate over time one sees shifts in political attention, and hence, in political environments. One also appreciates that typologies using the agency as the level of analysis rather than programs or policies create distorted impressions of agency stability or turbulence. The latter types of measures better create a picture of the level of agency stability. I also propose that an agency's political environment should be considered in terms of changes from a baseline rather than raw measures, but regardless of how pursued, more thinking is necessary to determine how to best operationalize the measurement of agency political environments.

One way to do so starts from the premise that the true picture of the politicization of an agency is to view the measures together to see whether the environment is stable or turbulent. When viewed this way, CMS is the most politicized, FDA comes next, followed by the two most scientific agencies, NIH and CDC. As discussed above, it makes sense that CDC has the lowest turnover intent in terms of politicization. However, one would expect CMS or FDA to have the highest turnover intent on this basis. Instead it is NIH. This may be a function of the availability of other jobs, and limited opportunities for advancement without changing jobs in NIH. Clearly, more research is needed to determine which politicization measures—or combinations of measures--truly influence the lives of careerists, and which are too far removed to accurately apply.

It may also be that the better approach would be to test politicization as a determinant of job satisfaction that then leads to turnover intent, especially as the literature presented in chapter 2 asserts that job satisfaction is the biggest determinant of turnover intent presently used. It is

also the case that the political environment is embedded in multiple internal variables such as pay and organization satisfaction, making it difficult to tease out independently.

In chapter 4, I next laid out the integrated theoretical framework and methodology for my study. I posited a variety of direct and indirect ways that the political environment might influence careerists' turnover intent. I argued that it did so through altering internal agency variables, influencing job satisfaction, and impacting turnover intent. I informed my thinking of these relationships from my literature review in Chapter 2, as well as from my interviews with federal employees. My interviews included a focus group of participants in American University's Key Executive Program, and seventeen individual interviews. For the quantitative component of my research, I used data from the 2006, 2008, 2010, 2011, and 2012 Federal Viewpoint Surveys. I limited the data to upper-level (GS 13-15) employees in the CDC, CMS, FDA, and NIH. I also laid out a series of hypotheses (see Table 5.6) derived from my framework. To test them, I then ran three separate models. The first used a simple t-test to determine whether differences in turnover intent among agencies were statistically significant. The second test used a binomial logit approach to see which variables were significant in the decision to change jobs regardless of future job preference. The final approach used two models to distinguish between future job preferences. I included three types of independent variables in my logit models; (1) agency and time to capture environmental factors, (2) widely used variables about why people change jobs such as pay satisfaction, supervisor satisfaction, and job growth potential, (3) demographic variables.

In Chapter 5, I presented the results of my analyses. I will discuss the findings in greater detail in the next section of this chapter to better tease out implications for practice and future research. It suffices presently to note the following general points, and to unpack them later. In

combination, the findings suggest that there is value in incorporating external environmental variables into future research on turnover intent, in identifying and exploring the specific causal mechanisms (both direct and indirect) involved, and in disaggregating turnover intent decisions to reflect at least two different types of choices—viz., wanting to leave government and wanting to leave a federal agency but remain in the federal government.

As I noted in Chapter 1, finding statistical differences as I did across the four agencies after considering the impact of internal organizational variables does not confirm that they are attributable solely to the political environment. I may merely have failed to fully specify the model (i.e., not included other important internal variables), or the variables operationalized do not fully capture the concept I seek to measure. However, when the variation across agencies in political environments relative to the stability-turbulence factor discussed in Chapter 3 are combined with the statistically significant differences in turnover intent across them are combined, one feels on safer ground making that inference. To be sure, some of hypotheses regarding the environmental stability-turbulence link to turnover do not pan out for some agencies, but they do for others. And the fact that the findings seem largely consistent with expectations derived from the literature and from my interviews with federal careerists, I feel even more justified in claiming that environmental influences—direct and indirect—are real and need to be pursued in future research.

Relatedly, and in terms of practice, disaggregating the career choices as I do can go a long way toward designing recruiting and retention strategies in targeted ways, as well as toward better framing the decades-long discussion about the “quiet” or “deafening” employment crisis in the federal government. To date, those speaking of a crisis have framed the discussion in ways assuming that employee dissatisfaction led to wanting to leave the federal government.

Disaggregation reveals a more nuanced interpretation, showing that disaffection does not necessarily mean wanting to leave the federal government. At the same time, it helps better articulate the largely unarticulated causal mechanisms involved in turnover choices in a broader political context.

Implications for Practice, Limitations, and Future Research

The findings from my archival research, quantitative analysis, and interview data offer a number of implications for both theory and practice. The first is that environmental factors--including the turbulence of the political environment and dynamics of change over time--need to be incorporated into our understanding of careerist lives and job choices. A second is that the decision to move within government is distinctly different than the decision to leave government. These call for a variety of more nuanced retention strategies and theoretical approaches to turnover intent than currently exist in the literature on turnover intent.

Taking Time, Timing, and Career Choice More Seriously

Using all three quantitative approaches to determining whether agency differences matter in the choice to change jobs, I found different stories. Differences among agencies for wanting to change jobs were statistically significant in both the t-tests and the general binomial logit model asking only if people wanted to change jobs. The same held true for the choice to move within government where differences were significant in both the t-tests and the binomial logit model. However, differences fade or disappear when examining the choice to leave the federal government altogether. Here, the t-tests show no significant differences among agencies and the binomial logit model shows that there are some statistically significant differences, but those differences are substantively irrelevant, and some agencies do not appear to differ from others at all.

This leads me to believe that agency environments have more of an influence on moving within government than on leaving government. They still can relate to the latter, but it's the former where the major linkage lies. It is important to note that I use agency differences as a proxy for political environments recognizing that the measure may also capture internal management factors that are not defined in my model.

When paired with the data from my archival research and political measures it appears that there is variation over time in the turbulence of an agency's environment and the types of issues that they face. This turbulence affects a number of traditional variables (e.g. organization satisfaction), as well as this general agency variable. Future research is needed to understand how to best measure the turbulence of political environments and its implications for the lives of careerists. Needed are studies that sort out the direct and indirect impact of the stability-turbulence factor, as well as training for managers that affords them strategies for motivating their subordinates as these more stressful environments ebb and flow over time.

Realizing that the desire to move within government (16.33 percent of the sample) is far more prevalent than wanting to leave government (4.03 percent of the sample) also changes how we view the "quiet" or "deafening" crisis as articulated by the Volcker Commission (1989 & 2003) and Light (2008). My findings suggest that instead of a rush to leave government, the greater concern is that as dissatisfaction rises, people wish to move more within government searching for an agency that matches their preferences and reduced their stress levels. Instead of a mass exodus, we, through interviews, see a disillusioned group of committed federal employees who find personal fulfillment in their careers and value mission, but seek better working conditions.

It is also possible, of course, that my findings here are the result of the Great Recession and its lingering after effects. With unemployment high, perhaps the only exit opportunities were within the federal government. Still, aside from the National Security Agency, jobs were cut substantially during the period of my study within the federal government. Job security there also plunged across all levels of government. Nevertheless, the political world both directly and indirectly impacts these working conditions, so a focus on the external environment in its totality seems even more important for researchers. It also suggests that strategies for both reducing and coping with these stresses are profoundly needed.

My last point also stems from the importance of time as it relates to variation in instability or stability in agency environments. If environments are truly dynamic, then different points in time should show variation in results. The five years used in this study represent different political and economic conditions. In my general binary logit model, the probability of wanting to change jobs was significantly higher for every year compared to 2006. 2006 represents the most politically and economically stable year in the study.

The story is more complex, however, when the next two models distinguish between leaving and moving within government. In this case, people are still more likely to want to move within government in every year compared to 2006, but the likelihood of wanting to leave government tells a different story. There is no difference between 2006 and 2008 in wanting to leave, but people are less likely to want to leave from 2010 on. This corresponds to a weaker economy. So when the political world is more contentious and the economy is weaker, people are more likely to want to change jobs, and more likely to want to move within government. But they are less likely to want to leave government, even controlling for most of the traditional intra-organizational variables used in prior research

Thus, future research also needs to explore whether the two—political and economic environments--function independently in career decisions. Recalling that interviewees accepted pay freezes at first, but resented them a few years down the road, there is also a question of mounting stress, where what is acceptable in one time period is unacceptable later. It is also important to recognize that year variables may also capture some variation in internal management practices that is not otherwise articulated in my model. As year variables are treated as proxies for movements in political and economic environments, future research is necessary to determine how to best measure these in a statistical model.

When testing for variables traditionally linked in prior research to job satisfaction and turnover intent, all of my measures were statistically significant in the first general binary logit model, except for intrinsic motivation. With a sample of over 43,000 respondents, the expectation is that variables will be significant. It is in many ways more interesting to see what is not significant. The picture becomes more nuanced when the distinction is made between leaving government and moving within government. Increased satisfaction with one's job, organization, and opportunities for advancement always correlate with decreased likelihood of wanting to change jobs or leave government. Similarly, people with lower leadership roles, longer tenure, and older people are less likely to want to change jobs.

Two factors that were not relevant in either wanting to move within government or leave government were intrinsic motivation and coworker cooperation. Variables that mattered for leaving government, but not moving within government, were satisfaction with pay, the ability to innovate, and gender-- with women less likely to want to leave government. In contrast, some variables were significant for wanting to move within government, but not in leaving government. These included supervisor satisfaction, and understanding how one's work

contributed to agency goals. Interestingly, people who had a better understanding of how their work contributed to agency goals were more likely to want to move within government. This may be an indication that people whose jobs are more directly connected to agency mission are under more stress or experience less stability than those in supporting roles, possibly exhibiting a link between the political environment and impacts on individuals. As discussed in chapter 5, one can interpret this as the result of multiple tensions, and the subject warrants future research. Overall, these findings indicate that agencies need to develop retention strategies that distinguish between movement within government and leaving government. Looking at turnover intent as a simple stay or go question often masks underlying differences that could help managers.

Effects of System Breakdowns, Furloughs and Busted Budgets

When the political world acts in a way that directly impacts agencies, managers need to be ready for employee reactions in the agency as a whole and within work groups. Interviewees indicated that short-term political plays have long-term effects on employee morale and career choices. In the fall of 2013, political tensions peaked during a battle over the federal budget. The government shut down from October 1 through October 16. During this period, hundreds of thousands of federal employees were furloughed and contractors were left without funding. Interviewees felt that the implications for morale, trust, and career decisions would be longer lasting. Some people felt that the shutdown was a direct message about their worth expressing, “During the shutdown we were treated like a bunch of waste” (Interview 1/17/14). Others thought that it would trigger people leaving, especially people who were eligible to retire,

“A lot of the people who hung on through the recession, and are feeling more secure, once we got the shutdown, they decided that they had had it. They were done. You can expect to see a rush to the door of the old civil service people. And then on the other

side, some of the younger people are saying, ‘Whoa, what is this? Is this what I have to look forward to?’ That will lead some of them to start looking. I think the shutdown and the politics have a really strong impact on people” (Interview 11/5/13).

The budget battles and shutdowns created tension within programs on multiple levels. The two that emerged most in interviews were the wastefulness and uncertainty stemming from continuing resolutions and missing budgets, and the second was the divisiveness within offices when managers had to choose who was “essential” and who was “non-essential.” The latter required some people to continue working and others to not work. As a manager, one person expressed frustration with the budget process saying,

“The furloughs and the shutdown were very damaging. We all just think it is going to happen again. There is lack of trust in the process, which has been growing for years. At my level, we still don’t have our budget. It is April; it is third quarter. If you told a private sector manager, “You have to manage your program, but we have no idea what your budget is going to be, and you aren’t going to get your budget until halfway through the year, but we are holding you accountable for accomplishing goals and managing that money well,” it just wouldn’t be tolerated. But we tolerate it. That kind of thing wears on people, especially when you are in a leadership position, and you are responsible for resources and getting work done” (Interview 4/8/14).

Choosing which employees were essential and which were non-essential caused rifts within offices. Managers were often told that they could choose one or two people as essential: these people would continue to work and receive pay. Others were sent home, their emails shutdown, told not to communicate with coworkers at all, and to watch the news each night to see if they were to return the next day, all the time uncertain if they would be paid. One person

summed it up, “Up to September 30th we were working ten hour days. On October 1st we were non-essential” (11/5/13). Another said, “We had to put together two lists; mission essential and “not”. People who were not essential were really offended thinking that others thought what they did was not important. That government shutdown had a greater effect than what I thought it was going to have on the workforce” (Interview 3/25/14). Most people who were deemed non-essential expressed frustration, saying that they wanted to work, didn’t quite know what to do with their time when they didn’t know how long they would be out for, and that it was unsettling to be completely cut off from coworkers. In another agency, the resentment went in the other direction, where people who were required to work felt that those who were non-essential got a paid 2 ½ week vacation, while they held down the fort (Interview 4/1/14).

It is unclear if the initial wounds caused by the shutdown will heal quickly or build on a growing frustration with the political world. However, it does offer opportunities for future research exploring whether FedView survey findings for 2013 and 2014 reflect any increases in dissatisfaction or turnover intent. Given that these interviews were all conducted within nine months of the shutdown, it is also possible that interpretations of the impacts will soften if people are asked about it farther in the future.

Distribution of Resources

One other way that the political environment directly influences organizations, and then individuals, is through the distribution of resources within an agency. Consistent with Mintzberg’s 1983 proposition that power is unevenly distributed within organizations and that external actors work to influence the organization, I found that careerists described changing resource distribution within agencies based on the political preferences of the White House, appointees, and influential members of Congress. Careerists also described moving within

agencies based on the availability of resources among agency programs. People are acutely aware of which parts of the agency are most powerful. Power, in turn, is largely derived from the political spectrum. Therefore, their interpretation of their position within the agency is defined by political prioritization.

Once the overall budget is set, with very few exceptions, appointees and OMB determine the distribution of those resources within an agency. Similarly, FTE allotments are made within the executive branch without congressional control. A possible future measure in turnover research for agency politicization is the stability of resource distribution. Some interviewees described internal power and budgetary/FTE success as having consistent winners within the organization, and others described a shifting internal power structure that depended on the priorities of appointees and the president. One person described the internal distribution of resources as follows:

“It changes over time depending on what the current priorities are, or based on what is happening in the public health, or based on the director’s priorities. For a while those can be the favorite children in terms of resources and it also creates lots of demands. You hear of people that are working in those offices that are getting lots of attention. They are working day and night, and people expect them to respond to emails at 10, 11, 12 at night. So in some ways it is better to not be on one of those topics, because of your work life balance. On the flip side, if you are not one of those priorities, you are not going to get resources, particularly in this age of tight budgets” (Interview 4/1/14).

Resource distribution can be targeted within programs as well. One interviewee’s job involved supporting small communities across the country. With limited resources, I asked how they determined which communities to visit and supply funding to. His response was that the

decision was made at the highest levels of the organization and that certain areas of the country received more attention than others (Interview 3/20/14). This indicates that the choice of where money is channeled within programs can be political.

Others interviewees recognized the importance of pleasing key congressional advocates and their constituents/supporters. In discussing which offices get the most support, one respondent attributed success to having strong outside advocates who would lobby Congress in support of your program saying, “You need advocates to help push the mission and the work of the office or division that you are working in. That’s just the reality of how the system is set up. No, the dollars aren’t always distributed based on risk” (Interview 4/8/14).

A Senate staffer expressed a similar perspective when asked who “won” in the budget process. While he was quick to explain that appropriations committees did not have sufficient resources to thoroughly assess each budget and were more likely to take the president’s budget request and reduce it marginally, he did see two elements that helped agencies. The first was an agency employee that went out of their way to educate committee staff on agency programs and functions, and the second was a strong outside advocate. He pointed out that, however, that the Hatch Act prohibits agencies from directly lobbying Congress, and agencies need advocacy groups to lobby on their behalf (Interview 5/10/14). Another interviewee with experience as a congressional staffer, appointee, and lobbyist similarly said that the support of a powerful committee member aided in programs receiving budget increases. (Interview 5/28/14).

Surges in Political Attention

As I reported in Chapter 3, there are times for agencies when they face sudden surges in political attention. For the four agencies in this study, examples include addressing a pandemic flu outbreak for CDC, implementing the Affordable Care Act in CMS, responses to food borne

illness outbreaks for FDA, and distribution of stimulus funds for NIH. Sometimes surges are a result of a crisis, sometimes they are the result of a political movement, and sometimes they are the result of an agency misstep. Regardless, they require agencies to dedicate great deals of time, energy, and resources on top of routine work.

Many interviewees discussed the heavy price paid by careerists under these circumstances. There is a general consensus in both the literature that people involved in heavily politicized or “hot” issues quickly burnout (Guy, Newman, and Mastracci 2008 on emotional labor). On discussing work on one such issue, an interviewee said, “I’ve watched colleagues just get burnt out and tired because it is so much responding to the political...and not necessarily working to improve things. It can be very, very frustrating. There are people that it burns them out, but in a way, they are sort of addicted. So they just keep on, and I assume their personal life suffers. They just become disgruntled and difficult. There are other people who move on” (Interview 4/8/14).

Another interviewee who was working on such an issue said, “These have been the worst, most intense years of my career. People do feel stressed, and at a certain point it does become physical, how much can you do? How long can you keep up stressful stuff?” He went on to say, “Some people say, ‘I can’t stand it where I am because of all that’, and other people are like, ‘wow, this is exciting’. Some people start excited, and they stick with it, and eventually burn out” (Interview 4/1/14). Another person expressed that a large political push in his agency drew mixed staff ideological support from staff, but even those who believed in the activity finished with damaged morale (Interview 3/20/14).

These moments of crisis or increased attention also prompt additional congressional attention to agencies. After the initial flurry of activity related directly to the issue at hand,

attention shifts to agency performance often highlighting shortcomings in performance. An interviewee said,

“The expectation is that you are going to continue to provide a high level of continued service. This is where there is a disconnect. The expectations of the public and Congress are a really high level of service. At the same time, they are cutting the agencies. It’s hard. The agencies want to provide that, but there are certain things that we just can’t do in terms of resource limitations. But actually, disasters are good for us because Congress always comes in with a big stimulus package and we get all sorts of money. But it is a one-time shot, then it fades – memories are short” (Interview 3/25/14).

From the perspective of a Senate staffer, shortcomings in responses to crises were often an impetus for reorganizations. He discussed a part of a department that was widely thought to need work. After its perceived inability to respond to a disaster, the organization was broken into three smaller pieces (Interview 5/10/14).

Preventing burn out when the political world demands extra efforts for a priority is one of the most important challenges for upper-level managers. Managers need to think through ways to support staff when demands are excessively high to prevent long-term damage to their organizations. As such, a high level of emotional intelligence is necessary among managers, a need that agencies need to screen for and nurture within their agencies. While the stress of working on high priority issues is inevitable, managers can provide protections and breaks when they see an employee approaching burn out. As Guy, Newman, and Mastracci (2008) point out, there are also a variety of things that can be done in their HR recruitment and retention policies. These include tailoring job descriptions and reward systems in ways that incorporate and value traits associated with emotional intelligence. These include, but are not limited to, being able to

read one-self's emotional reaction to situations, calibrating that reaction according to situational need, and being sensitive to the those traits when dealing with others.

Reorganization

Both Congress and the White House use reorganization as a political tool. Agencies must recognize that there are costs to morale and job satisfaction during these disruptions that can, in turn, lead to dissatisfaction and employee turnover. Given the political nature of reorganizations and the implications for careerists, the impacts of reorganization on turnover intent also warrant further exploration. In my interview with a careerist in a highly politicized agency outside of HHS, the respondent discussed how during President Obama's first term, appointees worked on a major initiative by building a small "insiders team" where careerists were plucked out of offices and reassigned to the project. Political appointees had created an entirely new structure for the program, leaving careerists in existing offices offended and demoralized. Now in President Obama's second term in an effort to preserve the program from future political changes, that new office is being dismantled and distributed back into existing offices.

In discussing how the highly political nature of the program impacts careerists, this interviewee said, "I've seen people where their program ended. There is a general feeling of disappointment, but they know they will be moved somewhere else. Maybe that is a bi-product of my department being heavy on appointees--that the thing I'm working on is somewhat temporary. It only exists as long as this combination of executive leaders, the department, and Congress want it to exist. The people here see the ability of things to shift in the sand, where it is stone in other agencies." He summed up the experience as follows: "I can understand my part in the machine, but every four years the entire machine can be taken apart and reorganized and suddenly, the thing that I thought I was accomplishing is totally different" (Interview 4/3/14).

The Role of Mission

As noted, there were some anomalous findings when it came to goal or mission ambiguity in my statistical analysis. I discussed the importance of mission with all of the interviewees and found that there were a number of complexities that might help sort these anomalies, and thus warrant closer examination. The first question that I asked in every interview was why people initially chose careers in the federal government. Answers included a number of reasons such as a call to public service, happening upon it through the course of an internship, knowing family or friends that worked for the federal government, and the desire for a stable job. There were also marked differences based on education at the point of entry into government and professions. A call to public service or commitment to mission was cited almost every time the individual *entered* the government with a masters or doctoral degree. However, those who entered with a bachelors degree or lower were more likely to be initially driven by more practical factors such as stability or connections.

Making a distinction based on education level at the point of entry also coincides with perceptions of pay. Particularly among attorneys and Ph.D.'s, many believed that they could earn far more in the private sector than in government, but were more likely to cite commitment to mission and public service as a driving factor in their career choices. The slight exception to this is among some scientists. While the nature of their research is fundamentally for the public good, they joined the government because it allowed them the freedom to conduct their research without the pressures of obtaining grants and teaching required in academic jobs. They also had research options in the private sector, but the ability to dictate their own research agendas was critical.

On the other hand, most people who entered with lower educational attainments felt that they were well compensated, and while mission made their jobs more fulfilling, it was not the primary reason for joining government. One person summed up the importance of mission to different people as follows, “It depends on the field that you are in. I know people who are there because it is a job and it just happens that way. You know, if you are the doctor, or you are the program manager and you are in your field it is different. To me, you don’t wake up when you are a little kid and say, “I want to be a contract specialist.” There are people who really love it and have this passion for public service. For others, it is a good job” (Interview 3/20/14).

While the importance of mission and a call to public service is different at the onset of federal employment, respondents universally said that agencies worked to foster a sense of public service and commitment to mission. All of the interviewees discussed their personal commitment to agency mission and public service, even though some did not start their federal careers with such strong feelings. Many also recounted ways that their agency tried to connect people with the agency goals and worked to draw employees whose role was to support those whose work had a clear connection to mission into a team mentality.

In discussing agency mission, one person at a scientific agency made these points in response to my question regarding the mission of her current agency:

“ I have a tremendous sense of pride in it. That’s one of the primary reasons that I left my last agency, because I didn’t feel a connection to the mission. But my current agency is babies and puppies. How can you not feel happy with what you are doing? Even though I’m not dealing day-to-day with the scientists and the labs, I know that I’m providing the resources for them to do their job. Anytime you read anything positive in the newspaper, I can say that they were able to do that job because I provided resources

for them. I think it is a source of frustration when people don't know how their work feeds into the mission. In fact, we try to keep everybody informed about what is going on in the science of the agency. We email newsletters and notifications whenever the Office of Investigations does anything really gutsy. They try to keep everyone updated on the mission of the agency even if they aren't directly involved. That's important" (Interview 12/23/2013).

While this interviewee did change jobs because of mission, in general, the cultivation of commitment to mission and public service seemed to be a tool that kept people in their jobs, but was only rarely discussed as the reason that they left. Instead, when they did not feel connected to mission, other factors such as having a bad supervisor were more likely to prompt them to leave. But when they did feel connected to mission, they were willing to tolerate more frustrating internal factors. This suggests that mission may function as an indirect influence on career choices for those who are not primarily motivated to join federal service because of a mission or public service calling. The link to mission and public service appears to be cultivated and increased over time in this population versus an initial driving force that fades with disillusionment.

Another person made an important observation about the role of mission and the political world. He said,

"A large part of why my agency is the way it is, is that the methods of how to do the mission are so political, especially in a department where the mission is never mentioned in the Constitution. I think it creates a lot of the dynamic of conflict within the department. What is the most important thing for me as an employee to accomplish? Does it matter in the bigger picture?" (Interview 4/3/14).

Clearly, the mission-turnover intent linkage needs further exploration in future research, but not simply in terms of ambiguity or clarity. Timing in one's career, as well as prior education and position in the agency hierarchy also must be considered in terms of ambiguity and its impact on turnover intent. Likewise, for practice, the nature, timing, and target of mission clarification also has to be considered by those seeking to craft better retention policies for outstanding employees.

Measuring Political Environments

There are a number of limitations of my study that offer opportunities for future research. One limitation, already noted, is that it is unclear how to best measure the political environment of an agency. I offer a series of variables that when placed together, and paired with archival research and interviews, tell a unique story for each agency. However, because each agency has multiple activities, and the same issue appears in different political measures at different points in time, I have not proposed how to incorporate measures of the political environment into a quantitative model.

A challenge for future research is to determine if it is worth plugging numbers into statistical analyses if they cloud interpretation of their meaning, especially if they exhibit the internal inconsistencies demonstrated in this study. They thus will have to show how to incorporate political variables into models where the political arena shifts over time as shown best by measures of CMS during the ACA process where one sees hearings in one year, bills in another, then media attention during implementation. Political attention moves to different venues over time.

Unit of Analysis

The next limitation and opportunity for future research is to explore the proper unit of analysis for researching how political environments filter into the experience of careerists. Like Russian Matryoshka dolls, programs are nested within agencies that are nested within departments. I chose agencies within DHHS as the unit of analysis because there were sufficient commonalities to allow for comparisons, but their work and relationships with the political world differed enough to properly examine agency environments. However, for any of these agencies there are multiple programs that function quite differently.

As I stated in my discussion from interview data of resource distribution within agencies, consistent with Mintzberg's 1983 proposition, one could apply my same approach within one agency exploring how power and resources shifted from one program to another depending on political preferences. Similarly, one could say that the culture of agencies within one department is similar enough that such a study could be applied to differences among departments. Finally, consideration of political environments in state and local governments may be productive as their smaller size generates a closer link between political officials and careerists.

Differences Among Groups

Similarly, the influence of the political environment on individuals may vary from one group to another, and requires further examination. In my interviews, it was clear that the experience of a scientist is different from the experience of an attorney, and is different again from a budget analyst or contract specialist. There were also differences in responses along educational lines. For example, those with the most education felt that they were sacrificing pay for mission and quality of life questions, and those with less education felt well compensated. Another difference that appeared to be important in interviews was location. Interviewees universally felt that the experience of living and working in the Washington, DC metro area was

vastly different than being in other regions. The FedView survey asks if a person works in “headquarters” but does not specify DC versus other areas. In this case, people working in CDC’s Atlanta offices are working in their agency headquarters, but are outside of DC. It is also unclear how people would define headquarters. For example, they may consider headquarters to be the main offices of their agency or the main offices of their department. However, the FedView survey did not have questions about professions, education, or geographic data that were of usable quality.

Bureaucratic Controls as Political Tools

Through the course of the interviews, and as the literature covered in Chapter 2 on the administrative presidency and political appointee-careerist relations illustrates, it became clear that different administrations use bureaucratic processes as a method of control. Creating strict hierarchical chains for any communications between agencies and Congress limited the information that congressional staff had to work with and assured that any messages sent from the agencies were consistent with administration positions. Interviewees considered the tightening of bureaucratic controls as a function of both management styles and a contentious political environment consistent with the open systems literature (Burns & Stalker, 1961; Hannan & Freeman, 1977) and with the administrative presidency literature on presidential tools for control (Durant, 1992; Durant and Resh, 2010).

For instance, for every communication between Congress and agencies, staffers needed to send a letter through a member that was then sent through the agency down to the correct careerist. That careerist would then have to send their response through multiple layers within the agency before it could make it back to Congress (Interviews 10/16/13, 5/10/14, and 5/28/14). Both Senate staffers and careerists expressed frustration over the use of bureaucratic controls and

said that it did differ from one administration to the next. A Senate staffer who worked for Democrats explained,

“When it was the Clinton administration, apparently the White House was a free-for-all and you could talk to anybody. It wasn’t directly an open door, but you could talk to the people you needed to talk to. When Bush/Cheney came in, it was like slamming the door shut. There were probably directives put out that said ‘Do not ever talk to congressional staffers or you will lose your jobs’. They cut everything off. We thought that the Obama administration would loosen up a bit and have more information sharing and open door policy. It hasn’t been that way” (Interview 5/10/14).

Similarly, an interviewee who had worked for Republican members expressed the same frustrations. He found that in moving from the Clinton administration to the Bush administration, Republicans thought that they would have better access to the agencies, and were surprised when they faced strict bureaucratic controls (Interview 5/29/14).

Careerists found these controls to be a frustration and a distraction from their work. Some even thought that it was a reason that people changed jobs. One described the process of getting reports out of her former agency as a “happy to glad syndrome”. She explained,

“So you’d write up your interview and everywhere you had ‘happy’, they’d say ‘Change it to glad’. You’d change it and it would go to the next level where they would say, ‘Everywhere you had glad, lets change it to happy’. And it would go back and forth that way endlessly. That down time where you are sitting waiting for people to review it and you are fidgeting with it, that is a very hard period for these young, energetic people who are used to saying ‘let me go attack this and get it done’. I think that the bureaucracy can really wear you” (Interview 11/5/13).

Another careerist felt that the current administration is using bureaucratic controls more than she had seen in the past:

“If there is leadership that is more relaxed, and doesn’t like bureaucracy, it is different than when someone likes bureaucracy. You know, get this signature and that signature and the other signature. It is like that now and it never was before. Now they are very cautious about following the politically correct policies. There is a lot of bureaucracy. My memos need to undergo a chain of command. That adds a lot of burden and time” (Interview 10/16/13).

As careerists cited excessive bureaucracy as a reason to change jobs, it is important to pursue further research on how political efforts to control create the hierarchical structures that so frustrate careerists. Thus, the impact of hierarchy on turnover intent decisions seems another profitable area to explore in future research.

How Careerists Protect Themselves from the Political World

Related to my preceding point, interviews indicated that careerists try to shelter themselves from the political world. As a protective measure, careerists temper their responsiveness to the White House, appointees, and Congress. Heclo’s (1977) observation nearly four decades ago still appears valid. Careerists realize that as appointees and administrations change, they need to be careful to not align themselves too firmly with a policy or project that has too much political attention. One interviewee said, “We have to be supportive of the president and the White House, but at the same time we can get into trouble and it may be more difficult to do our mission if we are seen to align too closely with a particular administration” (Interview 4/8/14). Another staffer on the Hill said, “I think sometimes depending on who is in office, especially if it is divided, there might be trepidation for career

people to be helpful, because they might see it as someone trying to undermine them or take their money away. There is probably skepticism about the politics, but I think that careerists are not targeted” (Interview 5/10/14).

However, there are cases where careerists are targeted, as was the case at FDA when careerist emails and correspondences were secretly reviewed by appointees. Some interviewees said that an important component of career success was the ability to stay politically neutral. One such respondent said, “There is a core there that has stayed politically agnostic in the way that they do their jobs. I can guess what party they are in, but they leave it at home. Those who have a stronger identification feel it more when the administration changes” (Interview 4/3/14). Another explained,

“What we tend to see, is that we see turnover at the GS and SES level where certain people made it well known where their political alignments were. Those who didn’t make their alignments known moved to the top. And for those who did make their alignments known, a memo comes out that they are going to be spending more time with their family. That was very common in our agency, so I think people, even at the lower GS levels, all are aware of the dynamics at the change of an administration” (Interview 9/11/13).

While some had identified a need to appear politically neutral as a defense against the political world, others made a conscious decision to stonewall efforts by appointees or do as they are asked with the least possible effort, seeing appointee requests as an absurdity given that they would leave quickly and any of their efforts would be undone by the next appointee. On responding to appointees, a careerist summed it up,

“I think we all sit down and say, ok what is the flavor of the week? The political appointees come in and want to move the north-south walls east-west and then they leave. Then the next ones come in and say they want the east-west walls to be north-south. We say, ‘We’ve seen it and it didn’t work, but fine’. We do it” (Interview 11/5/13).

While it was not possible to explore these dynamics quantitatively, future research begs for answers to the question of how these zigs-and-zags, as well as the philosophy of careerists in reacting to them, might be linked to turnover intent. For practice, it seems useful to assess the philosophy of careerists periodically as a manager to ensure that they are not a source of frustration and to develop strategies for coping with them.

Survey Questions

The FedView survey questions also need refinement as many questions capture multiple concepts and many variables have endogenous relationships. Two questions that appear to incorporate multiple concepts are organization satisfaction and pay satisfaction. In many of the interviews, people combined support of an organization’s mission with satisfaction with the organization. While the Federal Viewpoint Survey asks multiple questions about agency goals, it never asks whether people are satisfied with agency goals or mission. Also, as discussed in chapter 5, the question that I used in my model assessing the link between goals and turnover intent has multiple interpretations. It could be that people interpret goals, mission, and objectives differently. Another explanation is that people are unclear about goals as the political world shifts, or that they disagree with the goals of an agency. There are different dimensions embedded in this question that require sorting out and refining and thus need further exploration.

Unpacking mission from overall organization satisfaction may yield interesting results. Along the same lines, the simple question of pay satisfaction does not distinguish between actual and symbolic pay. Where someone may be satisfied with their actual pay, they may be frustrated with their pay increases as was often the case for interviewees. This was sometimes presented in literal terms where insurance costs increased faster than pay, leaving people with less money than the previous year, and other times in symbolic terms of organizations valuing someone's work. Some of the variables also may be endogenous. For instance, organizations work to foster intrinsic motivation making it as much a measure of management as individual character. Further exploration of how to capture some of these more abstract ideas in surveys is necessary.

Finally, one of the most often cited benefits of a federal career by interviewees was stability. Yet, it appears that while it is rare that someone is fired from federal service, there is variation in the stability of one's job. As predicted by open systems scholars such as Burns & Stalker (1961) and Hannan and Freeman (1977), the behavior of an organization is altered by the stability of its environment. Agencies with greater shifts in political support and resources, both within agencies and for the agency as a whole, move people more often as programs and needs change undermining stability. There are also larger political threats to stability. With the furloughs of 2013, many people worried that they would not receive pay, many also watched contractors who worked next to them not receive any pay and lose jobs. The psychological implications of changing stability warrant further exploration that I could not assess in my study.

Final Observations

This study has established that agency political environments vary based on research on the history, current events, and political measures of four agencies within HHS. The study has also shown that these agency differences in political environments can influence turnover intent

both directly and indirectly. The quantitative analysis also shows that the choice to leave government is driven by different factors than the choice to move within government including possible differences in how agency environment factors into future career preferences. To then give deeper understanding of these differences and the impacts of the political world, interviews gave context and specific ways that the political environment directly and indirectly influences the job experience of careerists.

What becomes clear through the course of this research is that much of the tension between the political world and careerists is the result of different time horizons, a factor well-known in the presidency literature (Pfiffner, 1996). Careerists are distance runners who need to preserve themselves for long federal careers. They are negotiating a system that tightly controls their communications and threatens to impact them when the political winds change. Political appointees are sprinters who need to move quickly in mad dashes when windows of opportunity arise. While careerists want to support the political world and provide institutional and policy knowledge, they are constrained by agency structures put in place to control communications and the need to pace themselves, because they have watched peers burnout after participating in large political pushes. As one executive explained, “If the Secretary and all the political swirl is at the center, how far away from that is afar enough not to get burnt out in all of the chaos, sucked out into all of the chaos, but not so far out that they forget about you and you are suddenly totally disconnected or defunded?” (Interview 4/3/14). The political world also alters agency structures and power distribution impacting all employees including those who do not work directly on overtly politicized issues. With this in mind, my findings offer numerous avenues for future research linking the political world to the lives and career choices of careerists. Such a focus is important, timely, and long overdue in the public management literature on turnover intent.

APPENDIX A

GENERAL ECONOMIC AND POLITICAL ENVIRONMENT VARIABLES

Budget

Agency budget can be regarded as a measure of agency support from Congress as the literature tells us that the budget is used as one of the key methods of congressional support and control (see May, Workman, and Jones, 2008; Furlong, 1998; Headrick, Serra, and Twombly, 2002). On its own, budget gives a sense of agency size, but little else. However, when one examines year-over-year changes for any agency it tells a different story of the agency's political environment. One expects that less politicized agencies will have more stable funding streams as the budget will be used less frequently as a means of control through financial rewards or punishments. Less politicized agencies will also have more stable budgets because they are less likely to be implementing new statutes or large new programs requiring bursts of funding. Agency budgetary stability may be an indicator of a less stressful environment for employees leading to fewer people wanting to change jobs.

In addition to agency stability, the budget is an indication of congressional support. Therefore, consistent budget increases may translate into a more positive environment where careerists perceive their agency's work as valued by the political world. In this case, I expect significant variation in year-to-year agency budgets increases to correlate with decreased likelihood of wanting a new job.

The budget data is collected from annual agency budgets submissions from the agencies to Congress. In each budget submission, there are tables indicating historical spending. For each submitted budget, I took the actual spending for two years earlier as the most accurate measure of budget. Often the prior year spending is still subject to adjustments due to continuing resolutions and ongoing account reconciliation. An example of this methodology is that to find

the 2012 budget, I looked at the 2014 agency budget submission to Congress and found the 2012 data in their historical tables. I included budgets for 2005 through 2012. As I illustrate in Table 11, the range for actual budgets of my four agencies is \$1.45 billion (FDA in 2005) to \$773.83 billion (CMS in 2011). The median budget is \$6.43 billion. The range for year-over-year change in budget is -23.6% to 37.5%. The average change in budget is 5.9%. Note that these numbers include FDA's budget excluding user fees.¹²

Change in FTE's

While the budget serves as a measure of congressional support, the ongoing process with continuing resolutions and mid-year changes creates a level of uncertainty for actual budget results. Because of this, most careerists are probably more aware of funding for their programs or offices than for the overall budget. The budget also can include one-time expenses that are not long-term reflections of the political environment. For example, the NIH budget reflects a budget surge in 2009 due to stimulus spending. This was largely grant money that was quickly pushed through the agency rather than a measure of political support (although it does represent a way that the political world could support key constituents). More importantly, the 23 percent drop in NIH's budget the following year is a reflection of a return to normal (while maintaining a significant increase over 2008 funding) rather than a drop in political support.

A better measure of political support of agencies in the eyes of careerists may be changes in staffing levels. Therefore, I include a measure of the quantity of full time employees (FTEs) and year-over-year percent change in FTEs. Employees will probably be more aware of personnel changes such as hiring freezes or large numbers of new incoming employees.

¹² The FDA budget excluding user fees is used because it is a better indicator of political support of the agency. Congress has no control over revenue from user fees, but has complete control of the rest of FDA's budget. Adding user fees increases FDA's budget by between 24 and 53 percent. User fee revenue has increased over time and has increased at a faster rate than the appropriated FDA budget.

An agency's FTE allotment does not include contract employees. Annual budget documents do not specify how many contractors work for an agency. Contractor expenses are captured in the agency's overall dollars, but cannot be teased out of broad budget documents. It is important to compare agency budgets with FTEs to identify discrepancies in growth rate. If an agency's budget grows at a faster rate than its FTE allotment, one can assume that the current agency staff is either absorbing more work or relying more heavily on contractors. Either of these circumstances should lead to employee stress. While it would be informative to have numbers for contractors, FTEs alone are an important indicator of political support for long-term sustained growth or decline, rather than a short-term measure. A commitment to hiring more FTEs is in essence a commitment to the future as it is difficult to quickly reduce headcounts within an agency.

I determined agency FTEs by compiling information from annual agency budget submissions. Along with historical tables on the budget, there are historical tables on FTEs. The number I use for FTEs is based on budget submissions from two years later to allow time for final numbers to be determined. For example, the FTE number for 2012 is taken from the 2014 agency budget submission. Table 12 shows that the number of FTE's per agency ranged from 4,647 to 18,573, with a mean of 10,835. The year-over-year fluctuations in FTEs are between -3.31% and 10.82%; the mean is 2.50%.

Change in Federal Register Publications

The federal register serves as a notification to the public of agency activity. The content of federal register communications can range from mundane management choices, to announcements of grant programs, to large policy documents such as regulations. I assume that within any agency the type of communications does not vary dramatically from year to year, but

there will be differences in the quantity produced. In this way, federal register publications reflect agency activity that has gotten through at least appointees, and for larger issues, the White House. Much of this activity is in response to congressional actions and available funding.

To calculate the annual volume of agency publications in the federal register, I use the GPO's Federal Digital System website (<http://www.gpo.gov/fdsys>) to search federal register publications from each agency. One finds in Table 18 that the least amount of publications for a single agency in a year is 70 and the greatest is 1787. The average annual number of publications per year is 766.58. To measure change within agencies, I calculate year-over-year volume changes and find that the range is from -18.33 percent to 23.08 percent, with a mean annual change of 0.80 percent.

Congressional Hearings

I use congressional hearings as a measure of congressional attention for each agency. The content of hearings varies and can be either positive or negative so the volume of hearings cannot be seen as a negative measure of scrutiny. In many cases, agency participation in hearings is in terms of oversight, but it is more often among the four agencies in this study, that they are acting as expert witnesses in discussions of an issue. Hearings as a measure of congressional attention also can reflect ongoing relationships between agencies and Congress. As Krause (2010) points out, congressional hearings and oversight can be initiated by an agency. In addition to looking at the volume of hearings, it is also important to consider the year-over-year percent change in hearings. The volume gives a sense of the direct attention and interaction that Congress gives an agency, but the year-over-year change shows if there are spikes of attention at particular moments and if there is a trend indicating that an agency is rising or falling in its political salience. Regardless of whether the hearings are positive or negative, they

represent increased attention for agencies that coincides with increases in agency work – either as the result of a crisis/failure or a political initiative.

The data for congressional hearings is based on a search of the Government Printing Office's Federal Digital System website (<http://www.gpo.gov/fdsys>) where I coded the number of congressional hearings for each agency by year. I found that the volume of congressional hearings was much lower in election years than in non-election years, so I combined the data for congressional hearings into two year intervals: 2005-2006, 2007-2008, 2009-2010, and 2011-2012. The search pulled up testimony that specifically used each agency's name so that one hearing may be included multiple times based on the quantity of testimony that refers to the agency. Multiple testimonies give a more accurate sense of the scale of the attention than a more general count on hearings. As with other variables, I include both volume and year-over-year changes to capture general levels of attention and changes in political attention both across agencies and within each agency. Table 15 shows the range of testimony per agency for each two-year period was between 100 and 935 with an average of 195.12 testimony citations per period. There was a great deal of variation in the year-over-year percent change in testimony with a low of -51.34% and a high of 33.86% with the average agency change per period of -3.25%.

Congressional Bills Introduced

As with the congressional testimony, bills introduced represents congressional attention to agency issues. This is a strong indicator of political relevance as it shows that a Senator or Member of Congress wants their name directly attached to an issue related to the agency concerned. As with other political variables, I use both overall volume and change over time as measures.

Also like the congressional testimony data, I compiled data in two-year intervals representing sessions of Congress to even out fluctuations between election years and non-election years. I used the same GPO Federal Digital System and methodology to conduct the search. The range for the number of congressional bills in my data set is from 33 to 604 bills with a mean of 300.88 bills per session (see Table 16). The session-over-session percent change had a low of -54.17% and a high of 57.70% again indicating that there is a great deal of variation in levels of congressional attention to agencies. The mean session-over-session change was flat at 0.005%.

Public Presidential Documents

Public presidential documents are deliberately published documents that can give a sense of presidential attention to an agency or issue. These documents include signing statements, remarks, public letters, press conferences, and radio addresses. I again gathered this information by conducting searches for each agency on the Government Printing Office's Federal Digital System (<http://www.gpo.gov/fdsys>). I did an advanced search for each agency on Presidential Documents for 2005 through 2013. As illustrated in Table 19, annual presidential documents ranged from 0 to 20 with an average of 4.36.

Presidential State of the Union Mentions

While the volume of direct mentions of agency issues by the President in the State of the Union Address is very low, it is an important indicator of an agency's political environment. A mention in the State of the Union is either indicative of an issue being high on the president's agenda, an effort to mobilize the public, an accomplishment achieved under the administration, or recognition of a long-running public concern. From 2005 through 2013, CDC and FDA's work was never explicitly recognized or raised during the State of the Union. NIH programs and

accomplishments were mentioned four times in 2005, 2006, 2008, and 2013. CMS was mentioned every year in terms of Medicare, Medicaid, and efforts to control healthcare costs. This data is summarized in Table 17.

Ratio of Appointees to FTEs

In 2008, David Lewis asserted that presidents politicize agencies by increasing the number of appointees in a politically valuable or salient agency – and subsequently the ratio of appointees to careerists. To find this ratio, one must first determine the number of appointees in an agency and the number of full time employees. Congress publishes *The Plum Book* every four years immediately after a presidential election to help the administration identify appointed positions in the federal government. There are a variety of positions that are cataloged, including positions held by both careerists and political appointees. I use Lewis’ method of measuring agency politicization by determining the ratio of presidential appointees, non-career Senior Executive Service appointees, and schedule C appointments to agency total FTEs (full-time equivalent is a tally of full time employees where it can be that one FTE is made up of multiple part-time employees).

Presidential appointees may or may not require Senate confirmation. Non-career Senior Executive Service appointees (SES) fall directly below presidential appointees in agency hierarchy. They can be at the same level as career SES staff that represent the highest level of professional and management positions in the federal government. Schedule C appointees are brought in for direct policy work that is often considered confidential. These people are often the inner circle of expertise for higher-level appointees.

To determine the ratio of appointees to careerists, I use the 2008 and 2012 Plum Books to calculate the number of appointees and the number of FTEs for each agency in 2008 and 2012

listed in the 2010 and 2014 agency budget submissions to Congress. Because Plum Book data is only available for 2008 and 2012, I assume that the 2008 ratio is a reasonable estimate for politicization under the second term of the Bush administration and that the 2012 ratio is a similarly fair estimate for President Obama's first term. As illustrated in Table 14, CDC had the lowest number of appointees and ratio with one political appointee in 2012 and 0.009% of the FTEs represented by that one appointee. NIH (also a scientific agency) had extremely low appointee-careerists ratio of 0.01% with only two appointees. Moving to FDA where the scientific emphasis is placed in a more contentious regulatory role, appointees represented 0.037-0.039% of the workforce. CMS was the most politicized agency in 2012 with 18 appointees representing 0.333% of the CMS workforce. This finding supports Lewis' proposition that techno-scientific agencies are less politicized.

New York Times Articles

I use the *New York Times* as a barometer of agency political environments for two reasons. The first is that volume of articles alone serves as a measure of political salience. The second is that year-over-year percent change in the volume of articles shows when an issue comes to the forefront of the political agenda through volume spikes and often coincides with increased work for the agency. In contrast, an agency's environment may be more stable when press coverage is flat. Where there is a high volume of articles about an agency's action, the political environment of an agency is more stressful because it is undergoing more scrutiny, and thus, employee stress levels may be similarly inclined.

To generate the annual number of *NYT* articles for each agency, I used specific search terms on ProQuest to capture the most accurate and complete listing. For CDC, I searched for either "Centers for Disease Control" or "CDC". The full agency name was not used because

many articles do not write out the full agency name. In contrast, using the full name of the FDA did yield the best results without capturing state and local agencies. To compile the FDA articles, I searched, “Food and Drug Administration” and “FDA”.

For CMS, I constructed two measures. The first searched “Centers for Medicare” or “CMS”. Again, I abbreviated the full name of the agency because many articles did not write out the full name. This generated articles that specifically mentioned the agency. The second search was for “Medicare” or “Medicaid” or “CMS”. This second measure was necessary because many articles discussing political reform efforts in Congress do not specifically mention the agency. However, there were many articles where the terms Medicare and Medicaid were used to describe people, e.g. “Medicaid recipient”. This approach also captures articles discussing state Medicaid programs with no mention of the federal government. This second measure of CMS articles is important, as the public may not make distinctions between all of these components.

Finally, for the NIH I searched for “National Institutes of Health” and “NIH”. Because many articles refer to one of the 27 specific institutes or centers rather than the NIH as a whole, I also conducted searches on each of the NIH institutes or centers excluding articles that referenced NIH and added these into the total for NIH. For instance, articles can refer to the National Cancer Institute without referring to NIH. These citations are captured by my search by extending the search to specific institutes.

Overall, there was a wide range of press coverage for the agencies as shown in Table 13. When CMS’s articles were restricted to the agency only, they had the lowest number of articles with 31 articles in 2009. The picture changes when the more inclusive measure of CMS articles is used. This generated the high end of the article range at 1,195 articles in 2011. The average

number of articles per agency per year is 702, but this is highly skewed by the broad measure of CMS coverage. Because there is wide variety in the baseline of coverage, I propose focusing more on trends in coverage than on raw article counts.

Similarly, there is a wide range of year-over-year NYT coverage of agencies as well. The greatest decrease in year-over-year coverage was for the agency specific coverage of CMS with a decrease of 45.76% in 2008. The largest year-over-year coverage was also in the agency specific coverage of CMS, in 2013 where the number of articles more than doubled with a 113.04% increase. The average year-over-year change in articles was 3.42%.

Partisanship – Party control of the White House, Senate, and House

When considering the political environment, it is important to incorporate measures of the ideology of the Senate, the House of Representatives, and the White House. There are two main ways to view ideology. The first is to look at which party is dominant in each political body. Another approach is to consider whether the political world is ideologically unified or divided. Theoretically, this is an important distinction as the interaction of careerists with the political world may be rooted in ideological concerns or may be based in the level of conflict that they encounter. For example, as the bureaucracy must answer to both Congress and the White House, divided government may cause strains due to differing expectations. On the other hand, philosophical differences on the mission of an agency or the size of government may create stresses on agencies that are based in ideology. However, some literature suggests that ideology does not drive careerist decisions except where ideology moves to either the far left or far right indicating that careerists develop a “zone of indifference” about partisanship (Golden 1992).

Presidential Election Year

Presidential election years create a moment of uncertainty in the political world and within agencies. In 2008, the election guaranteed that there would be a new administration whether the new president was Senator McCain or now President Obama. In 2012, the choice was between a second Obama administration and an administration led by Governor Romney. This uncertainty means that beyond the normal cycle of appointees moving in and out of positions, there either will or could be a large shift in leadership. Additionally, election years demand that political attention moves to campaign issues and broader issues rather than oversight and more obscure components of political life. I propose that the uncertainty generated during an election year could result in stress for careerists that translates to more people considering changing jobs.

Unemployment Rate

The unemployment rate provides a measure of the economic market and when discussing career decisions, the availability of other jobs and confidence that new jobs will not be eliminated becomes an important factor. One expects that when employment markets are weak, people will be less likely to want to change jobs. For the people in my study, an overall unemployment rate may not be an accurate gauge of their personal employment markets. Those who reach the GS 13-15 level in the federal government tend to be better educated and more experienced than the general population. Because of this, I use a more specific measure of unemployment.

The measure of unemployment that I use is derived from the Current Population Survey conducted by the Bureau of Labor Statistics and the U.S. Census Bureau. This measure is of unemployment among experienced non-agricultural wage and salary workers in professional and

technical services. This group is defined in the North American Industry Classification System as:

“The Professional, Scientific, and Technical Services sector comprises establishments that specialize in performing professional, scientific, and technical activities for others. These activities require a high degree of expertise and training. The establishments in this sector specialize according to expertise and provide these services to clients in a variety of industries and, in some cases, to households. Activities performed include: legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services” (<http://www.bls.gov/iag/tgs/iag54.htm> accessed 2/14).

I chose this group because it includes a large section of the people in my sample including scientists, lawyers, accountants, and information technology professionals. While overall unemployment rates are higher than for this group, the general pattern of unemployment peaking in 2009 and 2010 is the same. The lowest unemployment rate for this group from 2005 through 2013 was 3.0 percent and the highest was 6.7 percent. The average was 4.73 percent.

Dow Jones Industrial Average

Like the unemployment rate, the percent change in the Dow Jones Industrial Average is an indicator of the country's financial health and stability that can impact people's decisions to change jobs. The Dow measures stock market prices. Stock market prices serve as an indicator of both company performance and investor confidence creating a strong measure of actual and perceived performance of the business world. When the Dow is low, many people have less

financial flexibility and are more cautious about financial decisions. This includes being more hesitant about voluntarily changing jobs.

I used Dow Jones Industrial Average yearly returns (1stock1.com) to determine both year-end actual Dow and year-over-year returns. For the actual Dow, the range was 8,776 to 16,576 with an average of 12,125. The year-over-year returns show a wide range indicating high volatility where the low was a 33.84% loss and the high was an 18.82% gain. The average gain was 6.38%.

Housing Market Index

As housing is one of if not the largest investment that people make, stability in the housing market is another important indicator of the economic environment. Housing concerns also limit people's career options. If one is unable to sell their home, or would have to take a loss on their home, they are unlikely to consider a job change that could require relocation.

A monthly survey of members of the National Association of Home Builders (NAHB) conducted jointly with Wells Fargo bank is designed to measure confidence in the housing market. Ratings are based on a zero to 100 scale where anything above 50 indicates perceptions of favorable market conditions and a score below 50 indicates diminished confidence. Between 2005 and 2013, the lowest reported monthly score was 8 and the highest was 72. The average score during this period was 35.5.

APPENDIX B

CROSS-AGENCY COMPARISON TABLES AND DESCRIPTIVE STATISTICS ON POLITICAL ENVIRONMENT MEASURES

Table 10. Agencies Ranked from Most Volatile (1) to Most Stable (4)

	CDC	CMS	FDA	NIH
Budget	4	2	1	3
FTEs	2	3	1	4
Appointees	4	1	2	3
Congressional Bills	3	1	4	2
Congressional Testimony	1	3	4	2
Federal Register Documents	3	1	4	2
New York Times Articles	3	1	2	4
Overall Volatility (based on total of rankings)	3 or 4	1	2	3 or 4

Table 11. Budget Actuals

Agency	Range (\$ in Millions)		Mean	Median
	Low	High		
CDC	6,082	6,804	6,450	6,432
CMS	484,886	773,825	714,057	676,580
FDA	1,450	2,601	2,177	1,968
NIH	28,641	40,496	34,602	30,114
Total	1,450	773,825	174,167	6,432

Table 12. FTE Actuals

Agency	Range		Mean
	Low	High	
CDC	8,510	10,877	9,509
CMS	4,647	5,400	4,857
FDA	9,663	13,538	11,303
NIH	16,880	18,573	17,671
Total	4,647	18,573	10,835

Table 13. NYT Actuals

Agency	Range		Mean
	Low	High	
CDC	197	381	275.11
CMS	31	98	58.00
FDA	377	736	527.89
NIH	117	176	148.78

Broad CMS	628	1195	973.11
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Table 14. Actual Numbers of Appointees and Percent of the Workforce

Agency	Appointees			Percent of Workforce Appointed		
	2008	2012	Mean	2008	2012	Mean
CDC	1	1	1	0.011	0.009	0.010
CMS	10	18	14	0.215	0.333	0.274
FDA	4	5	4.5	0.039	0.037	0.038
NIH	2	2	2	0.012	0.011	0.011
Total	17	26	21.5	Mean – 0.069	Mean – 0.098	0.083

Table 15. Congressional Testimony

Agency	Range		Mean
	Low	High	
CDC	109	253	193.75
CMS	100	142	123.5
FDA	190	252	221
NIH	168	288	242.25
Total	596	935	195.13

Table 16. Congressional Bills

Agency	Range		Mean
	Low	High	
CDC	319	604	462.25
CMS	33	72	51.50
FDA	272	415	338.50
NIH	226	472	351.25
Total			300.88

Table 17. State of the Union Mentions

Agency	Years Mentioned
CDC	0
CMS	9
FDA	0
NIH	3

Table 18. Federal Register Publications

Agency	Range		Mean
	Low	High	
CDC	475	622	546.00
CMS	70	99	83.00
FDA	846	1052	931.11
NIH	1354	1787	1505.22
Total			766.58

Table 19. Presidential Documents

	Low	High	Mean	Percent Change 2005 to 2012
CDC	2	13	5.11	20%
CMS	0	3	1.67	0%
FDA	0	9	2.78	-75%
NIH	2	20	7.89	-33%

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