

A HORIZONTAL AND VERTICAL ANALYSIS OF PUBLIC SERVICE MOTIVATION

by

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ABSTRACT

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The positive consequences of public service motivation (PSM) have been well-demonstrated in the public administration literature. However, while it is often used as an independent variable, it is rarely used as a dependent variable. This dissertation expands the understanding of the antecedents of PSM, the dynamics of PSM over time, and the differences in PSM within bureaucrats. It was found that parental traits and religious practices had the largest effect on childhood PSM. Longitudinal models highlighted the constant impact of youth PSM over time, which no other study had had the data to do. It was also found that having higher PSM increased the likelihood of working for government, but that this effect was mediated by graduating from college, and that government employment increased PSM. Finally, it was found that working for local or state government had a positive effect on PSM, but federal employment had no effect.

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In junior high, I ran for class president. I lost, the first of many electoral defeats. A few weeks later, I received a letter about that loss from Senator John Glenn. I still have not worked out exactly how he found out about that election, but as best as I can tell, a friend of a friend mentioned it to him.

Senator Glenn told me that he lost the first time he ran for office. He went on to note that working for government, either as an elected official or as a bureaucrat, is one of the most important jobs in the country. He concluded by hoping I never lost my interest in government, whether it be "...running for elective office or supporting public service in other ways." While my electoral ambitions have subsided, I do sincerely hope that this dissertation supports public service in other ways.

I would like to thank the members of my committee for their guidance. Dr. Thomas Holbrook provided invaluable feedback and guidance that truly elevated this dissertation. Dr. Douglas Ihrke jumped in and provided needed reassurance and support. Dr. Kathy Dolan and Dr. Sarah Benesh also played key roles in my development as a graduate student and as a scholar, and I sincerely appreciate them and their efforts.

It is impossible to disentangle this dissertation from some of the most important moments in my personal life. Right before I began my dissertation, I met the individual who would support me the most on this project: my wife, Annie. This has been a tremendous undertaking, and her unfailing support undoubtedly assured its completion. I am eternally grateful for her love.

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1 Introduction

1.1 Introduction

This dissertation will examine public service motivation in both a longitudinal and horizontal manner. To address the former, questions will be asked that explore both the antecedents of and any changes over time in public service motivation. To address the latter, questions will be asked probing differences in public service motivation across the various levels of government.

This chapter has multiple goals. First, it will describe why bureaucrats and public service motivation should be studied. Then, it will describe various areas of research on public service motivation that remain under-examined. Following this, the questions that motivate this dissertation will be reviewed. The data sets, models, and results will then be briefly summarized, and an outline of the rest of the dissertation will be presented.

1.2 Why Bureaucrats and PSM?

Bureaucrats are compelling figures, given the breadth and scope of their power, the unique constraints placed on them by the nature of their employment, and the difficulties in recruiting and retaining them. Bureaucrats are increasingly seen as possessing great levels of power within government. Scholars have claimed that bureaucrats have tremendous say in the creation, formulation, and implementation of public policy (Cogburn and Schneider 2003, Gray and Lowery 2000, Lipsky 2010). Furthermore, the bureaucracy has been given wide latitude in creating its own rules and regulations, as has been seen in the Environmental Protection Agency (EPA) using the Clean Air Act to recently regulate the emission of carbon dioxide. Additionally, almost 17% of all workers are employed by some level of government (Morales 2010). Federal,

state, and local government spending is expected to be over one-third of GDP for 2018 and is projected to keep growing at least through 2024 (CBO 2014). In other words, almost six trillion dollars will be spent by the government in 2018, and that is one of the smallest amounts that will be spent in the next decade. Given the size of government and the power of government employees, it is clear that bureaucrats serve a critical role in society.

Additionally, bureaucrats face distinct challenges by working in the public sector, such as low supervision and difficulties in motivation. Many bureaucracies are overseen by various legislative groups, and these groups may face collective action problems with respect to monitoring; if they do, there can be lapses in the monitoring of public servants (Gailmard 2009). Furthermore, bureaucrats are far more likely than those in the private sector to be motivated by intrinsic rewards such as wanting to help others or feeling that their work is for a noble cause (Crewson 1997, Houston 2000), and determining how to motivate bureaucrats “...to work energetically and intelligently toward achieving public purposes...” continues to be a much-debated topic within the realm of public administration (Behn 1995, 313). Given the uncommon constraints placed on them by the nature of their employment, bureaucrats are a unique group.

Finally, government has encountered a two-pronged problem that is affecting their employees. First, fewer young people are entering the public sector. While about 40% of employees in the private sector are under 35 years old, that number is 17% for the federal government; furthermore, while the federal government has usually been older than the private sector, this gap has been growing steadily since the 1990s (Dobi 2017). This may be partially explained by young people increasingly believing that government is ineffective and stifles

creativity (Bilmens and Gould 2009). Over a ten year period, the number of people interested in working for government dropped by a third (Lewis and Frank 2002). Second, government is having an increasingly challenging time retaining employees. High-quality workers at all levels of government are leaving the public sector (Lewis 1997) and the factors that impact turnover in the public sector differ from those in the private sector (Grissom et al. 2016, Krotel and Villadsen 2016). The difficulties faced in recruiting and retaining bureaucrats are real.

To summarize, bureaucrats as a group are powerful. They can impact all stages of the policy process. They are also unique. Determining what motivates them is a needed endeavor to encourage the production of their best possible output. Additionally, government is struggling. As fewer people want to work for government, it is imperative that bureaucracies are able to identify and cultivate a desire to work in government.

Fortunately, there is a theory that argues that such a desire exists. In addition, this theory argues that this desire will lead to better and more productive employees. This theory is “public service motivation.”

Public service motivation (PSM) was formalized by Perry and Wise (1990). Defined as “an individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations,” Perry and Wise (1990, 368) claimed that a desire to serve the public exists, and that those with such a motive were drawn to government employment because of the opportunity for service. Perry (1996) later went on to argue that PSM is composed of four dimensions: attraction to politics and policy making; public interest; compassion; and self-sacrifice. Scholars have subsequently claimed that by gaining a strong empirical

understanding of how PSM influences career choices, government and public organizations could more effectively recruit and retain future civil servants (Rose 2012).

Scholars have found numerous positive behaviors associated with PSM. For example, it has been seen that those high in PSM are more likely to exhibit ethical behavior (Brewer and Selden 1998), stay employed longer in public organizations (Bright 2008), and perform at higher levels (Bright 2007; Vandenabeele 2009) than those with lower levels of PSM.

1.3 Challenges Within PSM - Antecedents of PSM

Though much has been studied, there are still some notable questions and controversies within PSM. One of the most pertinent under-examined areas of PSM concerns treating PSM as a dependent variable. While much is known of the **consequences** of PSM, comparatively little is known of the **causes** of PSM. For example, what cultivates PSM in people prior to entering the workforce?

It is more than worthwhile to examine this, as whether or not PSM is static or dynamic has implications for how the public sector should hire or manage its employees. Given the positive behaviors associated with PSM, if it is dynamic, then it is important to learn what can change it in order to improve the workplace. After determining what cultivates PSM or what diminishes it, employees would then hopefully become more productive or more efficient. If PSM is static, however, then the focus would shift from trying to alter it to trying to understand where to find it. As opposed to finding activities or structures aimed at changing PSM, managers instead could concentrate on other tasks that could be more important. Additionally, the recruitment of employees could change to focus on people who are likely to have higher PSM.

Though a few have attempted to examine the determinants of PSM, there have been

numerous problems in those studies concerning data collection and measurement. A study by Perry et al. (2008) is representative of those issues. In their article, the authors used a survey of volunteers to discover the causes of PSM in individuals prior to entering the workforce. They asked respondents to recall the behaviors of their parents and of themselves from their youth. They hypothesized that three main areas may impact PSM: family socialization, religious activity, and youth volunteering. They found support for the family socialization and religious activity hypotheses, but not for youth volunteering.

However, there were two important problems with the study. First, the data were cross-sectional. In this case, the subjects were surveyed at a single point in time and were asked to recall their family socialization, religious activity, and childhood level of volunteering. Such recall has been found to be subject to social desirability bias (Kim and Kim 2013) and is especially problematic if the measurements are obtained from the same person in the same interview (Podsakoff et al. 2003). Additionally, only a contemporary measurement of PSM was used, and these respondents had been in the workforce for some time. Since other studies have shown that PSM may change over time (Wright and Christensen 2010, Ward 2014, Vogel and Kroll 2015), then the measurement of PSM that was used may have been biased. What is needed, as was noted by Wright (2008) and Wright and Grant (2010) in their reviews of the PSM literature, was a movement away from cross-sectional data and a movement towards studying those who had not yet entered the workforce to better analyze the antecedents of PSM. Both of these will be addressed in this dissertation.

1.4 Challenges Within PSM - Longitudinal Changes in PSM

There is another little studied question concerning PSM as a dependent variable: Does

PSM change over time? Determining the stability of PSM is a critical subject in public administration research. Since those with higher levels of PSM are seen as more effective and desirable employees (Bright 2007, Vandenabeele 2009), if PSM is stable, then more time should be spent recruiting and attracting the right people to government employment. If it is found to be malleable, then investments could be made by the bureaucracy itself into the development of prosocial attitudes.

Only a few studies have been able to use panel data to analyze this question (Wright and Christensen 2010, Kjeldsen and Jacobsen 2013, Ward 2014, Kjeldsen 2014, Vogel and Kroll 2015), but they have come to contradictory findings. For example, PSM has been found to decrease (Kjeldsen and Jacobsen 2013), increase (Kjeldsen 2014), increase and then decrease (Ward 2014) and increase and decrease simultaneously (Vogel and Kroll 2015).

The potential reasons for these contradictory findings may be grouped into two categories: measurement and population. For example, the length of time that was measured in a panel varied considerably. While Vogel and Kroll (2015) had the longest panel at 16 years, some of the studies had panels of only two years (Kjeldsen and Jacobsen 2013, Kjeldsen 2014). Also, the sizes of some of the panels were quite small. For example, Kjeldsen (2014) had a sample of only 79 social workers in her study. Some relied on only one question to measure PSM, which may have been problematic.

Finally, none of the studies included a measurement of PSM that existed prior to employment or to self-selection into a vocation. This does not allow for the control of the antecedent level of PSM on the respondent's current level. If PSM in youth has a large effect on later PSM but is not measured, then the effect of more contemporary variables may be

attenuated. If PSM in youth does not have a large effect, then little is lost by not measuring it. However, not knowing what the effect of PSM in youth is on later PSM makes it difficult, if not impossible, to determine the stability of PSM.

The populations that were surveyed also vary across the studies. Many focused on narrow vocations, such as attorneys (Wright and Christensen 2010), physiotherapists (Kjeldsen and Jacobsen 2013), or social workers (Kjeldsen 2014). It may be difficult to generalize from their findings. In this same vein, the studies varied in the countries that they studied. While two of the studies focus on the United States (Wright and Christensen 2010, Ward 2014), other countries include Denmark (Kjeldsen and Jacobsen 2013), the Netherlands (Kjeldsen 2014), and Germany (Vogel and Kroll 2015). As was noted by Kim et al. (2013), differences in how PSM is measured and perceived in different countries mean that, "... PSM scholars in one country must take care when building on theory and findings produced in another country" (97). What is needed is a study that measures PSM prior to employment, uses numerous variables to measure PSM, looks at a large segment of the population within the United States, and follows respondents over decades. These are all areas that will be addressed in this dissertation.

1.5 Challenges Within PSM - PSM and Government Employment

Related to these challenges in determining the antecedents and longitudinal changes in PSM is a question concerning causality: Does higher PSM lead to government employment, or does working for government lead to increases in PSM? If PSM is increased by working for government, then more could be examined concerning what it is about working for government that impacts PSM. If, on the other hand, those higher in PSM are drawn to government employment, then governments could take steps to tailor their recruitment strategies.

The findings on this subject have been mixed. It has been argued that those higher in PSM are attracted to government work (Perry and Wise 1990). In support of this, many studies have found that those higher in PSM express a preference for government employment (Lewis and Frank 2002; Vandenabeele 2008; Stejin 2008; Ritz and Waldner 2011; Liu et al. 2011; Clerkin and Cogburn 2012). However, when looking at those who actually work for government, the findings are inconclusive (Kjeldsen and Jacobsen 2013; Kjeldsen 2014; Breitsohl and Ruhle 2016). What is needed is a study that looks at both questions simultaneously: PSM should be measured before an individual enters the workplace, and the PSM of bureaucrats should be measured over time. This dissertation will address both of these areas.

1.6 Challenges Within PSM - Federalism and PSM

As was mentioned earlier, several studies of PSM may have reached different conclusions because different types of bureaucrats are studied. This leads to the final question: Are there differences in PSM for different levels of government employees? While many studies use bureaucrats from various levels of government, justifications for such selection are rare. Some studies use exclusively federal employees (Kjeldsen and Jacobsen 2010, Kjeldsen 2014, Vogel and Kroll 2015), local employees (Kim et al. 2013, Stritch and Christensen 2013) or federal and local (Taylor 2010). Kim et al. (2013) attempted to justify their international study's focus on local employees by stating that, "the **competencies** of national governments, and also of state governments...are different among most of the countries included in the research" (85, footnote 3, italics added). The key word in their defense is "competencies," as this takes on a unique definition in the context that it was used. According to work in the field of human relations,

“Competencies are the measurable or observable knowledge, skills, abilities, and behaviors (KSABs) critical to successful job performance” (Wuim-Pam 2014). This acknowledges that those at different levels of government need different skills to succeed. Therefore, if there are differences in the KSABs of local, state, or federal employees, then grouping together bureaucrats at various levels of government may serve to mask the differences and nuances that are needed to succeed at their levels, while leaving out bureaucrats from different levels may bias the interpretation of the causes and consequences of PSM.

Given the positions and demographics of federal and state employees in the United States, it appears as if it may be inappropriate to group all government employees together or to not have appropriate hypotheses when analyzing them separately. Those who work for the federal government serve predominantly in administrative and professional positions, while those at the state and local level are overwhelmingly in elementary and secondary education. These distinctions suggest that bureaucrats at different levels require different KSABs, which in turn may translate to differences in the salience of specific dimensions of PSM.

Another reason for differences in PSM may come from a related source: whether or not the bureaucrat is likely to interact with a beneficiary of their service. Belle (2013) found that exposure to someone that directly benefited from their work increased a bureaucrat’s PSM. Due to the different types of jobs performed at the federal versus the state and local levels, those at the lower two levels are more likely to directly interact with those whom they serve. This may lead to increases in PSM for those bureaucrats.

This increase in PSM may have practical implications. Such increases have been associated with increased job satisfaction and behavioral intent (Belle 2013, Pedersen 2015). Therefore, if PSM is increased, the consequences may be tangible in the real world.

To summarize, analyzing the differences in PSM between state and federal employees is an underdeveloped field. Many studies either focus on one level without any justification (Kjeldsen and Jacobsen 2013, Kjeldsen 2014, Vogel and Kroll 2015) or group all government employees together (Taylor 2010). In practice, there is wide variation in the types of jobs performed by state and federal bureaucrats, and different components of PSM may be more important at some levels than others. If so, then this affects what findings should be expected when PSM is studied. Additionally, depending on the stability of PSM, this may also affect what traits and characteristics should be sought after or cultivated by employers. This will be addressed in this dissertation.

1.7 Overview of Dissertation

Based on these controversies, the following research questions will be examined:

- What are the causes of PSM?
- Is PSM static or dynamic?
- Does higher PSM lead to government employment, or does working for government lead to increases in PSM?
- Are there differences in PSM for different levels of government employees?

To examine these questions, two data sets will be used. The first data source will be the Youth-Parent Socialization Panel Study, while the second will be the Cooperative Congressional Election Study. The former is a panel study that interviewed both parents and children and then

re-interviewed the children over a span of thirty years. The latter is an online survey completed in the mid-2000s.

To examine the antecedents of PSM, nested regression will be used. Overall, parental traits and religious practices had the largest effect on PSM. Additionally, childhood PSM was found to impact later PSM. This is a notable finding because it is the first study to not rely on recall data and used data directly obtained from parents. Additionally, this is one of the first studies to capture PSM prior to college or employment.

Fixed effects panels will be used to study whether or not PSM was static or dynamic. Not only did numerous variables impact PSM, including government employment, but there were also differences in the results when the time frame of the panel was varied. Most importantly, the panels highlighted the constant impact of youth PSM over time, which no other study had had the data to do. This was the longest panel study of PSM in the United States. Additionally, it was the only US panel that included a cross-section of the population. It also included numerous controls that were lacking in other studies.

To answer the question regarding the direction of causality between government employment and PSM, various statistical models will be used, including a logit model and a fixed effects panel regression model. It was found that having higher PSM increased the likelihood of working for government, but that this effect was mediated by graduating from college, and that government employment increased PSM. This is this the first study to simultaneously examine and clarify both claims.

A regression model will be used to examine the relationship between different types of government employees and PSM. It was found that working for local or state government had a

positive effect on PSM, but federal employment had no effect. This shows that there are differences in PSM by level of government.

These findings have numerous consequences and implications for the field of public service motivation. By showcasing the importance of parents in transmitting PSM to children, scholars should take a closer look at PSM in the context of socialization. By highlighting the stability of PSM, future studies would be wise to measure it across time. By clarifying the relationship between PSM and government employment, others should analyze how bureaucracies appear to socialize PSM within their employees. Finally, by showing that differences in PSM exist between federal and state and local employees, steps could be taken to understand how to better cultivate PSM within bureaucrats.

This dissertation is laid out as follows. Chapter Two reviews the literature on PSM and presents the hypotheses. The third chapter presents the definition and measure of PSM and then validates the proposed measure. It then provides an overview of the data that will be used. The fourth chapter models the antecedents of PSM, while the fifth chapter models the longitudinal changes in PSM. The sixth chapter describes how the government workforce has changed over time and then models differences in PSM by level of government. The seventh chapter then reviews the findings, their implications, and potential future questions.

2 Literature Review and Hypotheses

2.1 Introduction

This chapter has several goals. First, it will give an overview and history of PSM. In doing so, it will also point to unexamined questions concerning PSM. Then, it will address how this dissertation is prepared to engage with those questions via the presentation of the hypotheses.

2.2 History of PSM

Many of the early studies in public administration sought to identify the differences between public and private employees. A representative example of this can be seen in Kilpatrick, Cummings, and Jennings (1964). In their book, **The Image of the Federal Service**, the authors used a survey and found that public employment was seen to provide job security and better benefits than private employment, but that it was also associated with monotonous work that could be constrained by reams of red tape. The authors also found that federal managers were less likely to be motivated by money but more likely to be motivated by helping other people or bettering society through their work than those in the private sector.

These commonly-held beliefs were questioned by Buchanan (1975). Buchanan (1975) argued that the depth of service motivation among bureaucrats had not been adequately explored, as bureaucrats were often examined in isolation and not compared to those who work in the private sector. Using a survey of public and private employees, Buchanan (1975) found that those in the public sector had less of a public service ethic than those in the private sector; this difference was partially attributed to red tape.

The work of Buchanan (1975) was confronted head-on by Rainey (1982), who sought to extend these earlier findings. Rainey (1982) noted that Buchanan (1975) equated “job involvement” with “public service ethic.” Rainey (1982) found that when asked directly about the importance of “public service,” those in the public sector find it to be more important to them than those in the private sector. Rainey (1982) notes, however, that the motivation behind his article was not to downplay the impact of Buchanan (1975). “Rather,” Rainey notes, “it is that the differing findings raise important questions about how we should define and measure **public service motivation** among public-sector employees and other groups as well” (289, italics added). This article marked the introduction of the phrase “public service motivation.”

Inspired in part by a desire to provide a definition for this elusive construct, James Perry and Lois Wise wondered if it was possible that people possessed motives that were exclusively focused on serving the public. The label they used to describe such a motive was “public service motivation.” Public service motivation, or “PSM,” was defined as “an individual's predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations” (Perry and Wise 1990, 368).

To Perry and Wise (1990), the motivations for PSM could be organized into three different categories: rational, norm-based, and affective. For example, it would be rational to want to serve the public if a person had a desire to create public policy or wanted to further a particular issue. A norm-based motive to serve the public may be a belief in social equality or in loyalty to the government. If this motivation was affective, then a person may be possessed by a “patriotism of benevolence” that caused them to love their countrymen and wanted to ensure that their constitutional rights were upheld (368).

Perry and Wise (1990) then argued that various premises fell out of this conception of PSM. For example, they wrote that those with higher levels of PSM would be more likely to want to work for a public organization. Additionally, they argued that there should be a positive relationship between PSM and personal performance. Finally, they also stated that public organizations with more individuals with high PSM would not have to rely as often on utilitarian or extrinsic incentives to manage and motivate their employees.

These premises had profound implications for how government could function. If those with high PSM were drawn to work for government and were more committed to and better at their work than those with lower PSM, it would make sense for government to seek out and to cultivate PSM in their employees. Doing so could improve the delivery of services and increase the effectiveness of government. Furthermore, an emphasis on intrinsic incentives would change management techniques while a decrease in extrinsic incentives could reshape how employees were compensated. In other words, if there was support for these premises, then understanding PSM could be a potential avenue to restructure government to increase performance, efficiency, and employee satisfaction.

Having already established its theoretical foundation, Perry (1996) then sought to add methodological rigor to the study of PSM by describing how to measure it. Echoing his earlier work, Perry (1996) described six potential dimensions for PSM that could be either rational, norm-based, or affective in their motivations: attraction to public policy making; commitment to the public interest; civic duty; social justice; self-sacrifice; and compassion. Perry commissioned a survey of graduate students in public administration and queried them on those six dimensions.

Using factor analysis, Perry found that four dimensions best described PSM: attraction to public policy-making, compassion, commitment to the public interest, and self-sacrifice.

While the field of literature on PSM grew slowly at first, with four years passing from its initial articulation by Perry and Wise (1990) until another article used the phrase “public service motivation,” it experienced a small uptick in support following the publication of Perry’s (1996) article. Shortly thereafter, several articles were published concerning the existence, measurement, and consequences of PSM, which electrified the field (Crewson 1997, Naff and Crum 1999, Houston 2000, Brewer et al. 2000, Francois 2000). Since that time, it has become one of the most-studied theories in public administration. For example, from 2015 through 2016, almost 400 peer-reviewed articles were published that discussed PSM.

Those topics from the late 1990s and early 2000s that helped the field grow focused on the latter two premises from Perry and Wise (1990) that argued for a positive relationship between PSM and performance and that suggested that those higher in PSM will be less reliant on financial incentives for motivation. For example, using various data sources and multiple measures of PSM, Crewson (1997) found that public and private employees differed in their desirability of intrinsic and extrinsic rewards; that is, public employees were more likely to be motivated by service considerations, while those in the private sector were more drawn to economic rewards. Additionally, Crewson (1997) found that those who prioritized service motivations over economic motivations had higher levels of organizational commitment. This article suggested that not only were there differences in the motivations of public and private sector employees, but that these differences had repercussions pertaining to employee performance.

This was extended by Naff and Crum (1999), who administered questions akin to Perry's (1996) scale to measure the PSM of federal employees and compared the differences between employees with high and low PSM. They found that those with higher PSM were more likely to believe that they and their bureaucracy performed meaningful work. Additionally, those same bureaucrats had higher job satisfaction and were more likely to recommend working for the federal government than those with lower PSM. Additionally, Naff and Crum (1999) found that those with higher PSM earned higher performance evaluations than those with lower PSM. In other words, not only do those with higher PSM enjoy their work more than those with lower PSM, they are also **better** at their work. This suggested that PSM transcends attitudes and also impacts behaviors.

Houston (2000) echoed Crewson (1997) in an article that also attempted to see if public employees were more likely to value extrinsic rewards over intrinsic rewards. Using data collected by the General Social Survey (GSS), Houston (2000) found that public employees were more likely than those in the private sector to value performing meaningful work, while they were less likely to value earning a high income or working short hours. In other words, Houston (2000) found that public employees were more motivated by intrinsic rewards than extrinsic rewards. Houston (2000) then extended these findings to critique the managerial strategies employed by bureaucrats. He argued that, in light of these findings, it was not surprising that strategies that emphasized intrinsic rewards to motivate bureaucrats had often been unsuccessful and urged the public sector to draw more on extrinsic rewards to get the most of their employees. Therefore, one of Houston's (2000) most notable contributions was an emphasis on reconceptualizing bureaucratic management in light of the existence and effects of PSM, which

relates to the notion put forth by Perry and Wise (1990) concerning financial motivation and PSM.

Additional research has refined some of these early results concerning PSM and performance. For example, while Naff and Crum (1999) found that PSM is correlated with job performance, Alonso and Lewis (2001), using two different surveys of federal employees, found mixed evidence of a positive relationship between PSM and performance ratings. Later work sought to clear up this discrepancy. One author argued that the relationship between PSM and job performance is mediated by person-organization fit (P-O Fit). P-O Fit research analyzes the congruence between individuals and organizations with regards to ideas such as goals, values, and culture. Those in this field argue that congruence has a positive impact on a range of behaviors and attitudes (Kristof-Brown et al. 2005). Motivated by this, Bright (2007) found that PSM influenced P-O Fit, and P-O Fit impacted performance, but that there was no direct relationship between PSM and performance. Vandenabeele (2009), on the other hand, argued that job satisfaction and organizational commitment mediated the effect of PSM on performance, which he then supported using a survey of Belgian civil servants.

Subsequent studies have found numerous connections between PSM and other positive work behaviors and attitudes. For example, Brewer and Selden (1998) found that those high in PSM-related attributes were more likely to engage in whistleblowing than those with low PSM, which was replicated and confirmed by Cho and Song (2015). Other studies have found that those high in PSM were less likely to believe that red tape was a problem (Scott and Pandey 2005). Recent work has also replicated the finding from Naff and Crum (1997) that PSM

decreases turnover intention (Shim et al. 2015). Miao et al. (2017) found that bureaucrats higher in PSM tended to be more likely to exhibit innovative behavior in the workplace.

These studies of positive PSM-related behaviors have not been limited to the United States. Taylor (2007), in a study of Australian public sector employees, found that commitment to the public interest had the largest effect on job satisfaction, while organizational commitment was affected by self-sacrifice and attraction to public-policymaking. Also, job motivation was mostly correlated with commitment to the public interest and compassion. In an additional study, Taylor (2008) confirmed that PSM is significantly correlated with job satisfaction and organizational commitment among Australian bureaucrats. Extending this finding, Anderfuhren-Biget et al. (2010), in their study of Swiss municipal civil servants, used structural equation modeling and found that PSM and organizational support impacted work motivations, but that material incentives did not.

Numerous studies have also found support for the third premise from Perry and Wise (1990) concerning PSM and organizational incentives, which suggested that organizations with employees that are high in PSM will be less dependent upon utilitarian incentives. Bright (2005), in a study of county government employees, found that those higher in PSM were less likely to prefer monetary rewards; Taylor (2005) found the same to be true of Australian students. Additionally, Bright (2009) found that those higher in PSM were more likely to value intrinsic rewards such as performing meaningful tasks, opportunities for recognition, work-related and educational opportunities, and leadership opportunities.

Not all studies have found this result. Alonso and Lewis (2001) found no relationship between PSM and extrinsic rewards. Likewise, in a study of US federal employees, Frank and

Lewis (2004) saw no differences between the public and private sectors with respect to preferences for extrinsic or intrinsic rewards.

To help square these results, Wright (2007) argued that intrinsic rewards could be reframed as the importance of the organizational mission to a bureaucrat. Wright (2007) then measured organizational mission using questions such as, “This division provides valuable public services.” Using a survey of state bureaucrats, Wright (2007) used structural equation modeling and found that both the availability of extrinsic rewards as well as the intrinsic value of the organization’s mission increased the importance placed on work, but that intrinsic rewards mattered far more.

2.3 Antecedents and Longitudinal Studies of PSM

Though much is known about the positive impact of PSM on the attitudes and behaviors of bureaucrats, comparatively little is known about the origins and development of PSM. Does it come from particular organizations instilling beliefs into workers (Anderson et al. 2011, Kjeldsen 2012), from working with others on service-oriented work over a long period of time (Houston 2011, Kjeldsen and Jacobsen 2013), or is it present in people prior to their employment (Carpenter et al. 2012)? As was noted by Bozeman and Su (2014), “[PSM] remains woefully underdeveloped as a dependent variable” (6).

Those studies that have analyzed PSM have focused on two related but distinct areas: the antecedents of PSM and longitudinal studies of PSM. An article by Perry et al. (2008) is a good representation of the former. In their article, the authors used a survey of volunteers to discover the causes of PSM in individuals prior to entering the workforce. They hypothesized that three main areas may impact PSM: family socialization (volunteer behavior of parents, discussions

about morals); religious activity (frequency of religious attendance, time spent studying religious texts) and youth volunteering (how much time was spent volunteering, how many organizations the respondent volunteered for). They found support only for family socialization and religious activity, not youth volunteering. Vandenabeele (2011) is another example of a study of the antecedents of PSM. Using a survey of Belgian bureaucrats, Vandenabeele (2011) used hierarchical modeling to show that numerous demographics (education, age, gender) correlate with PSM. Moynihan and Pandey (2007), in a survey of state government Health and Human Services managers, analyzed the role of organizational factors on PSM. They found that while the culture of the organization did not affect PSM, red tape and increased tenure decreased PSM, while those with higher education and membership in a professional organization increased PSM.

However, these studies suffer from many of the same problems. The first problem in all of the studies is that those that were surveyed were already in the workforce; therefore, only a contemporary measurement of PSM was used. Since other studies have suggested that PSM may change over time (Wright and Christensen 2010, Ward 2014, Vogel and Kroll 2015), then the measurement of PSM that was used may have been biased.

Another common problem comes from the use of recall data. In the study by Perry et al. (2008), subjects had to recall their family socialization, religious activity, and previous level of volunteering. Such recall has been found to be subjected to social desirability bias (Kim and Kim 2012) and it is especially problematic if the measurements are obtained from the same person in the same interview (Podsakoff et al. 2003). What is needed, as was noted by Wright (2008) and Wright and Grant (2010) in their reviews of the PSM literature, was a movement

away from cross-sectional data and a movement towards studying those who had not yet entered the workforce to get a better handle on causality.

Another underdeveloped part of the research on PSM focuses on if and how PSM changes over time. Determining the stability of PSM is a critical subject in public administration research. Since those with higher levels of PSM are seen as more effective and desirable employees (Bright 2007, Vandenabeele 2009), if PSM is stable, then more time should be spent recruiting and attracting the right people to government employment. If it is found to be malleable, then investments could be made in the development of prosocial attitudes.

Some studies have conducted longitudinal analyses of PSM, but most suffer from issues regarding improper measurement, short lengths of study, or lack of comparable populations. The first study to use longitudinal data to study PSM was by Wright and Christensen (2010), who used two surveys of US attorneys to see the effect of time on PSM. The authors found that those with higher PSM were not more likely to start out in the public sector, but they were more likely to eventually work for government. However, the variable used to measure PSM was the respondent's answer to a question that asked if the most important reason for becoming an attorney was an interest in social service or in helping others. Since PSM is multidimensional, it can be difficult to rely on a single measure to capture all of its effects. Finally, while many of those surveyed were young attorneys, many had already entered the workforce; therefore, the baseline is not the respondent's PSM prior to employment.

Other longitudinal studies suffer from one or more of the same problems as the article from Wright and Christensen (2010). Kjeldsen and Jacobsen (2013) used a panel of Danish physiotherapy students to see how PSM can influence the desire to work in the public sector and

to see how it may change over time. They found that PSM had no effect on either a respondent's preference for working in the public sector or in eventually working in the public sector.

Additionally, Kjeldsen and Jacobsen (2013) found that PSM diminished over time, but that the decline was smaller for those who worked in the public sector. However, the panel lasted only two years, as compared to the six years in the study by Wright and Christensen (2010).

Additionally, the generalizability of this study is restricted due to the homogeneity of those surveyed, as they had all already chosen to work in physiotherapy and PSM may have influenced their decision to work in that field. Additionally, the results of a study in the Netherlands may be different from that in the United States, as PSM has been found to mean different things in different cultures (Kim et al. 2013).

Kjeldsen (2014) used a panel of Dutch social workers before and after they found their first job to see how PSM affects not only the desire to work in the public or private sector but also the kind of work that is desired. Jobs were classified as either concerning "service production" (where employees would be engaged in directly providing services) or in "service regulation" (where employees would make decisions using legal rules to determine if people were eligible for public services). Kjeldsen (2014) found that those with higher levels of compassion and lower levels of concern for the public interest were more attracted to service production jobs, while none of the three factors of PSM influenced the actual type of work that was found. However, contrary to earlier work, PSM was found to increase among those who worked in the public sector. This speaks to a controversy within the literature that needs to be further explored while also calling again for the use of longer panels, as the length of the panel was only two years. Additionally, the sample size was small, as 79 people were in the panel, with

12 working in service regulation and only six entered the private sector, which should call into question the generalizability of the findings.

Ward (2014) used a longitudinal panel to see how membership in AmeriCorps can change PSM over time. Unlike earlier panels, this panel interviewed respondents at three separate times. The respondents were interviewed prior to joining AmeriCorps, immediately following their service, and then a few years later. Additionally, the panel spanned eight years. A control group was also contacted at the same points in time made up of individuals who expressed an interest in joining AmeriCorps but ultimately did not. Ward (2014) found that those who did not join AmeriCorps saw their commitment to the public interest and civic awareness decline more than those who were in AmeriCorps, while attraction to public policy increased more among those who were not in AmeriCorps. However, this study did not look solely at those who were employed by government and while it used a longer panel, there was still not a look at individuals over the duration of their careers. Additionally, the control group was found to not be representative of the entire public, as a larger share of them had careers in the public sector than would be expected by chance.

Vogel and Kroll (2015), in the longest panel study of PSM to date, followed German bureaucrats for sixteen years using the German Socio-Economic Panel Study. The authors found that PSM was relatively stable but did increase with age and decrease with organizational tenure. However, they were only able to study those who stayed employed within the bureaucracy the entire time they were surveyed, which means that no comparison can be made between the private and the public sectors. Additionally, there was no measure of the respondent's initial level of PSM, which means the issue of "selection versus socialization" still needs to be examined.

The differences across the longitudinal studies of PSM are vast. They differ with respect to who is being studied, where the study takes place, the length of time under study, how PSM is measured, and in how PSM changes. What is needed is a study that measures PSM prior to employment, uses numerous variables to measure PSM, looks at a large segment of the population within the United States, and follows respondents over decades.

2.4 PSM and Government Employment

Another difficulty that comes out of not understanding if and how PSM changes over time concerns the initial premise of PSM as described by Perry and Wise (1990). They claimed that, “The greater an individual’s public service motivation, the more likely the individual will seek membership in a public organization” (370). In other words, those with higher PSM will be more likely to work for government. Determining the effect of PSM on employment has practical application. As was noted by Perry, Hondeghem, and Wise (2010) in their review of the state of research on PSM, improving the understanding of PSM on employment could lead to advances in bettering recruitment for public organizations. If those with higher PSM are drawn to positions in government, changes could be made in hiring processes to seek out or prioritize such individuals.

Several studies from various countries have supported the argument that becoming a bureaucrat is desirable for those higher in PSM. For example, Lewis and Frank (2002) used the GSS and found that those in the public sector had higher PSM than those in the private sector; similarly, those higher in PSM had a larger desire to work for the public sector than others. Vandenberghe (2008) used the framework of person-organization fit and found that, among Belgian master’s students, those with higher PSM were more likely to be drawn to public

organizations that focus on knowledge or culture than those that emphasize commodities or infrastructure. Stejin (2008) found that those in the Netherlands in the private sector with higher PSM were more likely to want to work for government than those with lower PSM. Ritz and Waldner (2011) found that university students in Germany at an armed forces academy had a positive relationship between PSM and the attractiveness of a job in a public sector organization, while Liu et al. (2011) found that Chinese university students higher in PSM were more likely to want to work for the government. Clerkin and Cogburn (2012) also found a positive relationship between PSM and intent to work for government among American undergraduates.

However, studies that have looked beyond a “preference” to work for government to study those who “actually” go on to work for government have come to far more nuanced conclusions. Wright and Christensen (2010), using data gathered from attorneys in the United States, found that PSM did not impact the likelihood that someone’s initial job is in the public sector, but that having higher PSM increased the likelihood that someone would eventually work for government. Kjeldsen and Jacobsen (2013), using a panel of Danish physical therapy students, found that PSM had no effect either on job preference or on actual job selection. Kjeldsen (2014) came to a similar conclusion in a study of Dutch social workers; while differing dimensions of PSM may influence the desire to work for the public sector, PSM had no effect on initial employment. In contrast, Breitsohl and Ruhle (2016), using a panel of German Millennials, found that those higher in PSM at 17 were more likely to have a government job by 20. Overall, there are mixed findings with respect to the effect of PSM on job selection, especially within the United States.

Furthermore, most studies of the link between government employment and PSM are cross-sectional. Studies using cross-sectional data are unable to disentangle the direction of causality between PSM and employment; as has been suggested by some panel studies, it may be that working for government causes increases in PSM. Therefore, as was noted by Breitsohl and Ruhle (2016), studies on the relationship between PSM and government employment need to move away from using cross-sectional data and should focus more on behaviors (sector choice) than attitudes (sector preference).

2.5 PSM and Federalism

Another understudied area of PSM concerns how PSM may differ between different types of bureaucrats. For example, many studies use bureaucrats from various levels of governments, but justifications for such selection are rare. Some studies use exclusively federal employees (Kjeldsen and Jacobsen 2010³, Kjeldsen 2014, Vogel and Kroll 2015), local employees (Kim et al. 2013, Stritch and Christensen 2013) or federal and local (Taylor 2010). However, studies have found differences across bureaucrats with respect to PSM (Kjeldsen 2014). What may account for these differences?

One possible suggestion for these differences comes from Kim et al. (2013). In justifying their decision to only study local bureaucrats, they stated that, “the **competencies** of national governments, and also of state governments...are different among most of the countries included in the research” (85, footnote 3, italics added). The key word in their defense is “competencies,” as this takes on a unique definition in the context that it was used. According to work in the field of human relations, “competencies are the measurable or observable knowledge, skills, abilities, and behaviors (KSABs) critical to successful job performance” (Wuim-Pam 2014). This

acknowledges that those at different levels of government need different skills to succeed. Therefore, if there are differences in the KSABs at different levels of government, grouping together bureaucrats at various levels of government may serve to mask the differences and nuances that are needed to succeed at their levels, while leaving out bureaucrats from different levels may bias the interpretation of the causes and consequences of PSM.

Based on the different positions of federal and state employees in the United States, it appears as if it may be inappropriate to group all government employees together. Those who work for the federal government serve predominantly in administrative and professional positions. However, those bureaucrats at the state level are overwhelmingly in elementary and secondary education or other public-facing sectors. These distinctions suggest that bureaucrats at different levels may require different KSABs, which in turn may translate in differences in the salience of specific dimensions of PSM.

Van Loon et al. (2015) may have approximated this when they wanted to learn more about the complex relationship between PSM and employee well being and found that the key variables mediating the two were the societal impact potential of the bureaucrat's job and the type of organization that employed the bureaucrat. First, the authors sorted bureaucrats based on whether or not the bureaucrat worked in a field that was focused on changing behaviors (people-changing) or a field marked by redistribution and classification (people-processing). Then, they asked these bureaucrats about their occupational "societal impact potential" (SIP), which focuses on whether their vocation has the potential to impact society. The authors then used structural modeling to see the relationship between PSM and well being. They found that those in people-processing organizations with high PSM and low SIP were more likely to burn

out than those with high SIP, whereas those in people-changing organizations with high PSM and high SIP were more likely to burn out. In other words, if a person was high in PSM, in a job that was in focused on processing (e.g. working primarily with rules and paper), and felt that they were unlikely to contribute to society in their current position, he or she would be more likely to experience feelings of burn out than someone in the exact same position but felt that they were likely to make a societal impact. Conversely, if someone was high in PSM, worked in a people-changing field (e.g. a school or a hospital), and believed that a job like theirs could better society, they were more likely to burnout than someone who was in the exact same position but did not believe that their job would likely improve society. The authors argue that their findings suggest that institutional and managerial constraints help to shape how PSM affects well being.

Another reason for differences in PSM may come from a related source: whether or not the bureaucrat is likely to interact with a beneficiary of their service. In a study of Italian nurses, Belle (2013) found that those who came into contact with someone who benefited directly from the work of the nurses saw increases in their PSM. Due to the different types of jobs performed at the federal versus the state and local levels, those at the lower two levels are more likely to directly interact with those whom they serve. This may lead to increases in PSM for those bureaucrats.

These increase in PSM may have practical implications. Increases in PSM have also been associated with increased job satisfaction and behavioral intent (Belle 2013, Pedersen 2015). For example, Pederson (2015) found that those that were reminded of their ability to serve the public interest or their ability to help their fellow citizens were likely to commit more time to their

work. Therefore, if PSM is increased, the consequences may be tangible in the real world via improved work performance.

2.6 Hypotheses

This literature review has highlighted both the accomplishments and the challenges of PSM. It has shown how PSM has been clearly linked to numerous positive workplace behaviors. However, while much is known with respect to the **consequences** of PSM, comparatively little is known with respect to the **causes** of PSM. Those studies that have examined the antecedents or changes in PSM have been plagued by myriad difficulties and have come to competing conclusions. This has also led to questions pertaining to the directionality of PSM and government employment. Additionally, little is known about sector variation in PSM. Given the importance of PSM, the following questions will be examined:

Question One: What are the causes of PSM?

Hypothesis One: Parental characteristics, such as parental PSM, education, and working for the government, will have a positive effect on childhood PSM

Why should the family be expected to influence the development of PSM? Much of the support for this comes from the literature on socialization. Socialization is “the process of development or change that person undergoes as a result of social influence” (Gecas 1981, 165). It is the study of how outside forces shape the formation of and alterations in attitudes and behaviors.

These “outside forces” can take myriad forms. For example, Sapiro (2004) noted that the structure of the party system may impact whether or not ideology or partisanship is more likely to be transmitted to children. Bar-Tal et al. (2017) found that children that live in areas of

intractable conflict tend to be socialized at younger ages and that socialization occurs more quickly than in more peaceful areas. The political mood in a country may also impact socialization, as Grasso et al. (2017) discovered when they found that children that came of age in the United Kingdom under Prime Minister Margaret Thatcher were more right-authoritarian than what would be suggested by modernization theory. However, as was noted by Hyman (1959), “Foremost among agencies of socialization into politics is the family” (69).

There are two forms of socialization: direct and indirect. Direct socialization occurs via observation; i.e., when children see their parents actively involved in a particular activity. Indirect socialization occurs via discussion; i.e., when children are company to talks about a particular activity. Both direct and indirect socialization have been found to transmit political beliefs and behaviors (Cicognami et al. 2012, McFarland and Thomas 2006, McIntosh et al. 2007, Schmid 2012).

The family is one of the most, if not the most, important agent in socialization, and with good cause. This is due in part to the unique relationships shared between family members. Compared to other relationships, those within families are normally more long-lasting, personal, and deep. According to Gecas (1981), among the most common elements that are shared from parents to children include values, beliefs, and attitudes. Given that PSM has been occasionally defined as “the beliefs, values and attitudes that go beyond self-interest...” (Vandenabeele 2007, 547), it may be assumed that PSM could be socialized via the family.

Furthermore, socialization by parents has been found to have a direct impact on the development of various political beliefs, but that impact diminishes over time. In a review of the socialization literature, Jennings (2007) noted that partisanship and ideology tends to be most

readily transmitted from one generation to another. However, this correlation drops as children age out of the home before eventually stabilizing.

Aside from PSM, it may be assumed that parental education and occupation selection could also be socialized and have a positive effect on PSM. Children are far more likely to graduate from college if they have a parent who has a bachelor's degree (Caldati et al. 2018), while those that have a parent who was a bureaucrat are far more likely to work in the public sector than those who did not (Lewis and Frank 2002). These intergenerational transfers may be the result of socialization. For example, children may observe their parents going to work for the government or may be a part of discussions concerning work. In addition, several studies have also found that higher education is associated with increased PSM (Pandey and Stayk 2008; Vandenaabeele 2011) and those that work for government tend to have higher PSM than those that do not (Taylor 2010). If these behaviors are socialized, and if these behaviors lead to increases in PSM, then it may be suspected that living with or observing parents with those behaviors may impact PSM. Therefore, it is hypothesized that those children who had parents that graduated from college or worked for government will be more likely to have higher PSM than those that did not.

Hypothesis Two: Childhood characteristics, such as being religious, will have a positive effect on childhood PSM

Based on the conflicting findings in the literature on PSM, it is difficult to hypothesize how several childhood characteristics may impact PSM. Mixed results have come with respect to the effect of sex (DeHart-Davis et al. 2006; Vandenaabeele 2011), race (Blank 1985, Bright 2005), and partisanship (Blais et al. 1990, Jensen et al. 2009).

However, the literature on socialization and on PSM does suggest a direction for the effect of religion. Studies have shown a link between religious affiliation and involvement and PSM (Perry 1997, Moynihan and Pandey 2007). This is in keeping with the framework of the effects of socialization on PSM. There is a robust relationship between religiosity and giving back to the community (Lam 2002; Lam 2006). This is suspected to be motivated more through the sense of community that is engendered by religion than through religious tenets (Putnam and Campbell 2010). Therefore, it is hypothesized that those that are more religious will have higher PSM.

Question Two: Is PSM static or dynamic?

Hypothesis Three: PSM will increase over time for those who have kids, graduate from college, or work for the government

While several longitudinal studies have examined the dynamics of PSM, there is no consensus concerning its direction. PSM has been found to decrease (Kjeldsen and Jacobsen 2012), increase (Kjeldsen 2014), increase and then decrease (Ward 2014) and increase and decrease simultaneously (Vogel and Kroll 2016). Furthermore, none of these studies have been able to control for the initial level of PSM present in an individual.

That said, by combining this literature with the findings from studies on the antecedents of PSM and from the field of socialization, it is likely that PSM increases over time. For example, studies in public administration have shown that having a child or having a college degree is associated with higher levels of PSM (Vogel and Kroll 2016; Perry 1997; Vandenabeele 2011). Additionally, various studies have suggested that government employees have higher

PSM (Brewer 2003; Houston 2006; Ertas 2014). Given that many in the sample will experience these events, it is hypothesized that PSM will change in a positive direction over time.

The explanations for why these variables should have a positive effect on PSM come from the socialization literature. This dissertation has emphasized the role of socialization in the development of PSM, predominantly through the family. If PSM is affected by the family early in life, it is reasonable to assume that family continues to exert an effect on PSM throughout life. For example, having children can lead to increases in parental involvement in communities (Pollmann-Schult 2014). Therefore, it should be expected that such behavior would lead to increases in PSM. With respect to education, Pascarella and Terezini (1991) found that students leave college with an increased sense of their personal responsibility to their communities and country. If this is so, then it would not be surprising that education was associated with increases in PSM. Also, bureaucracy itself has been suggested to be a source for the socialization of PSM (Brewer 2003), and as will be discussed in more detail under the fifth hypothesis, bureaucracies are prime candidates for being effective agents of socialization. Therefore, it is hypothesized that these three variables will increase PSM.

Question Three: Does higher PSM lead to government employment, or does working for government lead to increases in PSM?

Hypothesis Four: Those higher in PSM will be more likely to work for government

Perry and Wise (1990), in their foundation work defining PSM, argued that “The greater an individual’s public service motivation, the more likely the individual will seek membership in a public organization” (370). Various studies have found a link between PSM and a preference for public sector employment (Lewis and Frank 2002; Vandenabeele 2008; Stejin 2008; Ritz and

Waldner 2011; Liu et al. 2011; Clerkin and Cogburn 2012), but those that have examined PSM and eventual employment have come to mixed findings (Kjeldsen and Jacobsen 2012; Kjeldsen 2014; Breitsohl and Ruhle 2016). However, these studies have relied on short time horizons of either one, two, or three years, respectively, and these studies focused only on the respondents' initial jobs; studies with longer time frames show a positive relationship between PSM and government employment (Wright and Christensen 2010). Additionally, the numerous studies highlighting the differences in PSM between government employees and those in the private sector (Brewer 2003; Houston 2006; Ertas 2014) suggest that a positive relationship between PSM and government employment is likely.

Hypothesis Five: Working for government increases PSM

Government bureaucracies may also be expected to impact PSM because the workplace is also a powerful agent of socialization. To be socialized into an organization is to understand the values and behaviors that are expected of an employee (Louis 1980). Organizations effectively socialize their members in three different ways: through selective recruitment; providing easily understood career paths and rewards; and through the use of a clearly modeled value system (Chatman 1991).

Bureaucracies have the potential to be model examples of organizational socialization. First, there are rigorous processes in place to join a bureaucracy, whether through civil service exams or through licensing requirements. Additionally, whether through the General Schedule, union protection, or civil service protection, the potential career paths and monetary rewards in bureaucracy are usually well understood by their members. Finally, if the members of a bureaucracy are all committed to the organization, then there is also the potential for the values

of the organization to be modeled for incoming workers. In short, the structure and goals of a government bureaucracy make it a prime candidate to be an effective agent of socialization.

Furthermore, others have suggested that bureaucracies themselves could impact PSM via socialization. Brewer (2008), in an overview of employee and organizational performance, suggested that “organizational socialization” could be an “important mechanism for transmitting a ‘public institutional logic and seeding public service motivation in the individual’” (149).

Brewer (2008) then goes on to bemoan the lack of research in this area, suggesting that this is a fruitful line of inquiry.

Question Four: Are there differences in PSM for different types of government employees?

Hypothesis Six: State and local bureaucrats will have higher PSM than federal bureaucrats

As has been acknowledged in past studies of PSM (Kim et al. 2012), bureaucrats at different levels of government must possess different competencies. These “competencies” are the talents and abilities that are necessary for professional success in a chosen field (Wuim-Pam 2014). Serving in different levels of government may require different competencies.

Bureaucrats at the state or local levels are more likely to be “street-level bureaucrats” and directly interact with those in the public, while federal bureaucrats are more likely to interact with themselves. Additionally, bureaucrats at the state level are far more likely to interact with the beneficiaries of their work than those at the federal level based on their proximity to the people that they serve. Such interactions have been argued to increase PSM (Belle 2013). Based on this, it is likely that state and local bureaucrats have higher PSM than federal bureaucrats.

2.7 Conclusion

This chapter showed that while much has been examined regarding the consequences of PSM, comparatively little has explored the causes of PSM. Both the antecedents of PSM and the stability of PSM have been relatively unexamined. The direction of causality between high PSM and government employment also remains unknown. Finally, the differences in PSM among different types of bureaucrats has not been studied.

Those studies that have tried to examine some of the questions normally suffer from various data problems. For example, none have been able to include measures of PSM that were gathered from childhood, which means those measures that have been used may be biased. Additionally, those that have tried to gauge the effect of parents have yet to use actual measures collected from parents. Studies examining the relationship between PSM and government employment have suffered from using cross-sectional data and a failure to simultaneously examine both potential directions of causality. Finally, bureaucrats have vastly different roles and responsibilities, but studies of PSM have not teased out which type of bureaucrats are likely to be higher or lower in PSM.

Due to either lack of attention or lack of rigor, these questions still need answers. This chapter detailed the hypotheses that will motivate how they will be addressed. The data that will be used to examine these questions will be detailed in the following chapter.

3 Definitions, Data, and Measurement

3.1 Introduction

This chapter serves several purposes. First, it will describe the sources of data and their usefulness in answering the questions in this dissertation. Then, it will provide both the definition and the measurement of PSM. Next, several methods will be used to verify the measurement. Following that, the rest of the data that will be used in the statistical models in the subsequent chapters will be reviewed.

3.2 Data Sources

The data used come from two sources. The first data source is used to examine the antecedents of PSM, longitudinal changes in PSM, and the relationship between PSM and government employment and comes from the Youth-Parent Socialization Panel Study. The second data source is used to explore the differences in PSM by level of government employment and comes from the Cooperative Congressional Election Study.

The data for what became the Youth-Parent Socialization Panel Study was initially collected in 1965 by researchers M. Kent Jennings and Richard Niemi at the Survey Research Center of the University of Michigan. Surveys were distributed among 97 public and private high schools to 1669 seniors drawn from a national probability sample. Additionally, the parents of the children were also surveyed at the same time. If a parent was not available, then a guardian was surveyed. The student cohort was asked numerous types of questions covering their attitudes towards self, school, family, and country, while parents were asked questions concerning their employment in lieu of school. The response rate among students was 99% and 94% for parents.

Follow-up surveys were conducted with the children in 1973, 1982, and 1997. Response rates for the follow-up surveys were 81%, 84%, and 82%, respectively.

The design of this dataset makes it uniquely appropriate to handle many of the questions motivating this dissertation. First, parents are interviewed. No prior study has been able to obtain direct measures from parents; they have relied on recall data from children. Second, children are interviewed early in their lives. Measures of PSM have never before been obtained while the respondents were in high school, which is prior to possible contamination from employment or from higher education. Third, it is a panel that follows these children over a span of thirty years. No longitudinal study of PSM in the United States has been able to follow respondents over such a long period of time. Finally, all of these elements are part in the same study, which presents a unique circumstance to be able to simultaneously measure and account for effects that had not ever been included in prior studies.

The Cooperative Congressional Election Study (CCES), as described in their guide, “seeks to study how Americans view Congress and hold their representatives accountable during elections.” The survey is national in scope and is large enough to permit some analysis at the state or congressional level.

The data used in this study was collected in 2006. The data was gathered online by the firm YouGov/Polimetrix. Though it was an opt-in survey, a technique known as “sample matching” was employed to create a representative sample. In sample matching, a random sample is initially drawn from the population in question. Then, each person from the random sample is “matched” to someone who had opted in to the survey. The sample was a stratified national sample of 36,500 adults.

This survey can be uniquely leveraged to explore the differences in PSM across levels of government. The survey is large enough to enhance the ability to isolate and study relatively small groups, such as government employees. It is detailed enough to allow for an examination of bureaucrats working at the federal, state, and local levels. Additionally, it is broad enough that it included questions to accurately measure PSM.

3.3 Definition of PSM

Two of the key challenges in this dissertation concern the definition and the measurement of PSM. Ever since Perry and Wise (1990) provided the initial definition of PSM, there have been many attempts at refining or reframing it. While Perry and Wise (1990) labeled PSM as “an individual's predisposition to respond to motives grounded primarily or uniquely in public institutions and organizations” (368), it has also been recast as something broader. As was noted by Bozeman and Su (2014), PSM has also been equated with a, “general altruistic motive...work-related preferences...or prosocial behaviors” (701).

However, this multiplicity of definitions has not given rise to much anxiety among those who study PSM. This may be because all of the conceptions of it are similar, as was noted by Perry and Hondeghem (2008). What they have in common is “the importance accorded to other-regarding orientations” (5). While some definitions vary with respect to whom is served, or how serving is operationalized, at its core is an emphasis on serving. Therefore, this dissertation will take a more literal emphasis on the words “public” and “service” when defining PSM.

PSM will be conceptualized as attitudes and behaviors oriented towards serving others. “Others,” in this respect, includes the community and the nation. “Attitudes” mean an awareness

of and interest in others. “Behaviors” means the giving of your time, talents, and wealth to causes larger than one’s self.

3.4 Measurement of PSM

The only part of PSM that may have more different conceptualizations than the definition of PSM is the measurement of PSM. In their review of the literature, Perry et al. (2010) classified several of the approaches that had been used to measure PSM. One involved the use of a single question related to service. Others have treated PSM as unidimensional or multidimensional. Finally, others have used specific behaviors as evidence of PSM.

This can be seen in the various longitudinal studies of PSM, which, given the nature of the majority of the questions explored in this dissertation, bears examination. First, some studies were able to use questions from scales that have been created to measure PSM, while others had to turn to more indirect measures. Those studies that borrow from scales to measure PSM are from original data sets; that is, the data sets were constructed with measuring PSM in mind. Given that interest in longitudinal studies of PSM is rather recent, those original data sets that study PSM longitudinally only cover short spans of time. This does not allow for in-depth examinations into how PSM can change over a lifetime. On the other hand, the majority of those studies that used indirect measures usually relied on a single variable to measure PSM. This can also be problematic, as using a single variable to measure a complex concept could lead to biased results.

To highlight examples of these differences in the literature, Kjeldsen and Jacobsen (2013) and Kjeldsen (2014) looked at PSM over two years and used questions drawn from Perry’s (1996) scale, such as, “Meaningful public service is very important to me,” and “I am often

reminded by daily events about how dependent we are on one another,” in their measures of PSM. On the other hand, Wright and Christensen (2010) measured PSM by the answer to a single question regarding the respondent’s interest in “social service/helping others,” in a study covering six years. Likewise, Georgellis and Tabvuma (2010) treated responses to a question about “satisfaction with the nature of the work itself;” i.e., job satisfaction, to measure PSM in their study that covered sixteen years.

All of these approaches informed how PSM was measured for this research project. Since this data for the Youth-Parent Socialization Panel Study was initially collected decades prior to the first articles on PSM, it is not surprising that no questions related to traditional PSM scales were used. Additionally, it was decided to not rely on a single variable to attempt to capture the differences in PSM for fear of measurement bias. Finally, since two different surveys were used in this dissertation, there had to be a large degree of similarity in the questions used to measure PSM across both surveys. Therefore, based on the questions that were asked, multiple variables were used to measure PSM.

Again, PSM is conceptualized here as a collection of as attitudes and behaviors oriented towards serving others. “Attitudes” means being aware of and interested in others. This is measured by a variable capturing interest in public affairs and a count of correct answers to political knowledge questions.¹ “Behaviors” means the giving of one’s time, talent, and wealth. This is measured in two ways: by a count of organizations of which the respondent was a member, and by a count of political activities. Such organizations of the former include civic

¹ See Appendices A, B, and C for the exact question wording for the measure of PSM

groups, neighborhood organizations, and fraternal organizations, while the latter would include measures such as attending a political rally.²

These four variables were then standardized using the “percent of maximum possible” (POMP) method (Cohen et al. 1999). This method was used because traditional z-score standardization changes the multivariate distribution and the covariance matrix of the variable (Moeller 2015). Furthermore, standardizing by z-score in longitudinal data can lead to problems related to differences in reference frames and distributions among different years of data (Moeller 2015). In contrast, the POMP method is a monotonic transformation which does not alter the multivariate distribution nor the covariance matrix.

To use the POMP method, each value per observation is subtracted from the minimum value of the variable and then divided by the maximum value of the variable. This creates a score that ranges from 0 to 1. Since there are four measures in this index, each measure is then multiplied by 25 and summed to create an index ranging from 0 to 100.³ For example, if someone joined six of eight groups, their score would be $((6-0)/8)*25$, or 18.75. This score would then be combined with the rescaled measures of the three remaining measures of PSM to create the index.

To ensure that these variables could be combined into an index, they must be determined to be both unidimensional and reliable. If the variables measure different constructs, they should not be treated as one unique scale and multiple scales should instead be used. To determine

² This conceptualization and measurement of PSM hews closely to that of Ward (2014). Ward (2014) used questions about making a difference in one’s community, the importance of working in direct service to people, attachment to the community, encouraging participation in community affair, and knowledge or awareness of the community. This lead to a focus on questions on participation in community organizations and awareness of community needs, as well as questions about voting in elections and knowledge of candidates, to measure PSM.

³ While some scholars treat PSM as multidimensional, it has been shown to perform just as well as a unidimensional measure (Wright, Christensen, and Pandey 2013).

dimensionality, exploratory factor analysis should be used (Tavakol and Dennick 2011). Based on the Kaiser criterion, those factors with eigenvalues equal to or greater than one should be retained. In other words, if there is only one underlying factor associated with these variables, there should only be one eigenvalue equal to or greater than one. Additionally, dimensionality must be assessed for every unique time period; though a group of variables may be unidimensional during one data collection period, it can not be assumed that it will always be unidimensional. Therefore, exploratory factor analysis was conducted six times on these variables: twice for data gathered in 1965 (once for parents, and once for children), and once for data gathered in 1973, 1982, 1997, and 2006.

Table 1 shows the results of the exploratory factor analysis. All six times that the analysis was conducted, only one factor had an eigenvalue greater than one. This suggest that the variables may be treated as unidimensional.

Table 3.1: Eigenvalues for the Exploratory Factor Analysis of PSM

Number of Factors	1965 Parent	1965 Child	1973	1982	1997	2006
Factor1	1.96543	1.73041	1.72698	1.73041	1.73041	1.77314
Factor2	0.79019	0.92815	0.92762	0.92815	0.92815	0.92834

To examine reliability, mean interitem correlations must be examined. If the variables are not reliable, then they lack internal consistency and should not be used. While some prefer the use of Cronbach’s alpha for such a test, it is sensitive to the number of items included in a scale; adding more items inflates the correlation and can make it appear as if items are reliable when they may not be (Tavakol and Dennick 2011). In contrast, the mean interitem correlation is not impacted by scale length. Optimum values for mean interitem correlation should be between 0.1 and 0.5; any value lower suggests that the scale may be too simple while any larger values

suggests overspecification (Briggs and Cheek 1986). Much like the calculations for dimensionality, reliability should also be tested for every time that data is collected; therefore, it is tested in 1965, 1973, 1982, and 2006.

Table 2 shows the mean interitem correlations. In every comparison, the correlations are between 0.1 and 0.5. These tests confirm that these variables can be combined into an index variable to measure PSM.

Table 3.2: Mean Interitem Correlations for the Components of PSM

Variable	1965 Parent	1965 Child	1973	1982	1997	2006
Campaign Acts	0.2927	0.1936	0.1834	0.1965	0.2276	0.1840
Political Knowledge	0.3409	0.2747	0.2459	0.2387	0.3150	0.2698
Public Affairs Interest	0.3118	0.1540	0.2362	0.2023	0.2834	0.1615
Org. Membership	0.3375	0.3142	0.3014	0.2111	0.2876	0.3020

While this measure is unidimensional and reliable, given that these questions have not yet been used in the literature to capture PSM, it may be argued that this measure does not tap into PSM. This is a serious concern, as this measure is the crux of the statistical analysis of this dissertation. Therefore, the next section will analyze the appropriateness of this proposed measure of PSM.

3.5 How to Validate the Proposed Measure of PSM

To examine the appropriateness of this potential measure of PSM, there will be several validation tests. Since these exact measures have not been used in prior studies of PSM, it is possible that they may not be associated with PSM. Therefore, these variables will be compared to other variables that are more closely aligned with those that have been used in the PSM literature to determine if any association exists between them.

In order to validate this proposed measure, there must be a standard against which the suggested metric should be compared. This standard will come from the original conception of PSM as described by Perry and Wise (1990) and Perry (1996). Perry and Wise (1990) argued that there were three motivations driving PSM: rational, affective, and normative. Perry (1996) noted that the rational motive pertained to “...actions grounded in individual utility maximization” (6). In the scale that he constructed for PSM, this motive was named “Attraction to public policymaking.” The normative measure captured “...actions generated by efforts to conform to norms” and was labeled as “Commitment to the Public Interest” (6). The affective measure were “...triggers of behavior that are grounded in emotional responses to various social contexts” (6). This measure captured both the “Compassion” and “Self-Sacrifice” dimensions of PSM.

Table 3.3: Motivations and Dimensions of PSM

Motivations	Definition	PSM Dimension
Rational	Actions grounded in individual utility maximization	Attraction to Public Policymaking
Normative	Actions generated by efforts to conform to norms	Commitment to the Public Interest
Affective	Triggers of behavior that are grounded in emotional responses to various social contexts	Compassion; Self-Sacrifice

This foundation of PSM informs how to validate this proposed measure. If this suggested measure does tap into PSM, then there should be an association between the measure and the three motivations of PSM. To test this, the proposed measure of PSM will be compared to questions from the PSM literature that tap into rational, affective, and normative motivations. These questions from the PSM literature will come from articles that have focused exclusively on how to measure PSM: Perry (1996), Vandenabeele (2008), and Kim et al. (2013).⁴

⁴ See Appendix F for the exact questions used by these authors.

3.6 First Validation Test of PSM Measure - Youth-Parent Socialization Panel Study

The first validation test will come from data within the Youth-Parent Socialization Panel Study. In the 1965 survey, the parents were asked an open-ended question about their conception of a “good citizen.” The exact question wording was, “People have different ideas about what being a good citizen means. We're interested in what you think. Tell me how you would describe a good citizen in this country -- that is, what things about a person are most important in showing that one is a good citizen.” The responses were then grouped into several broad categories.

It is important to clarify what this question is attempting to discern. It is not a self-reflected measure; that is, it is not asking what the respondent personally believes. Rather, it is a question about what the respondent thinks is generally valued by society.

Three of the categories into which the answers were grouped included responses that were similar to those that have been used historically to measure all three motivations of PSM. Table 3.4 shows several responses that closely hew to traditional metrics for PSM. For example, the category, “Active Orientation to Matters in the Country,” included the response, “Active in community in order to improve it or wanting to improve it.” This is similar to the question used by Kim et al. (2013) that stated, “I admire people who initiate or are involved with activities to aid my communities.” Another example would be the category, “Community Virtues,” which included the response, “Works to better the community.” This is similar to the question used by Perry (1996) to measure normative motivations that stated, “I unselfishly contribute to my community.” The category, “Social Behavior,” included responses that are similar to those that have captured the affective measures of PSM. For example, responses coded in this category include “Being concerned about people around me” or “Helping the needy or less fortunate.”

Table 3.4 - Proposed and Traditional Questions for Measuring PSM by Motivation in the Youth-Parent Socialization Panel Study

	Category	Expectation	Examples of Resonances within Category	Similar "Traditional" PSM measurement questions	
Rational	"Active Orientation to Matters in the Country"	Statistically significant relationship to Proposed Metric	A good citizen... "Gets involved, being active, participates in things (Public Affairs)" "Tries to change unjust laws" "Active in community in order to improve or wanting to improve"	"It is important to contribute to activities that tackle social problems"* "The give and take of public policy making does not appeal to me"*** "I admire people who initiate or are involved with activities to aid my communities"*	
Normative	"Community Virtues"		A good citizen... "Improve the country; make country better place to live" "Civic minded; active in community affairs" "Works to better community"	"Serving the public interest is more important than helping individual persons."**** "It is hard for me to get intensely interested in what is going on in my community"* "I unselfishly contribute to my community"***	
Affective	"Social Behavior"		A good citizen... "Helping needy/less fortunate" "Concerned about people around him"	It is difficult for me to contain my feeling when I see people in distress*** "Considering the welfare of others is important to me"* "To me, helping people who are in trouble is very important"****	
N/A	"Support for Country"		NO Statistically Significant relationship to proposed metric	A good citizen... "Not being critical of government" "Respecting or honoring symbols and officials"	These are not PSM metrics and therefore do not have correlated "traditional" PSM questions.
N/A	"Moral Attributes"		A good citizen... "Trustworthy" "Religious"		

Key: * = Kim et al. 2013; *** = Vandenberg 2008; ** = Perry 1996

These are similar in scope to questions used by Vandenabeele (2008) (To me, helping people who are in trouble is very important) and Kim et al. (2013) (Considering the welfare of others is important to me).

There were two additional categories; however, they should not be associated with PSM. For example, “Support for the Country” included answers similar to “Not being critical of the government” and “Respecting or honoring symbols and officials.” The category “Moral Attributes” included responses such as “Trustworthy” and “Religious.”

If the responses in the categories “Active Orientation to Matters in the Country,” “Community Virtues,” and “Social Behavior” are associated with the questions that have been used in past studies to measure PSM, and if the proposed measure of PSM does reflect PSM, then there should be some association between the responses and the measure used for analysis in this dissertation. Furthermore, if the metric used in the dissertation taps into PSM and is not capturing other motivations, such as a general ethos of nationalism or morality, then the remaining categories of “Support for the Country” and “Moral Attributes” should not be associated with it.

These assumptions were tested in a regression model. The independent variables were the responses mentioned above dummy coded and then grouped into their various categories, while the proposed measure of PSM was the dependent variable. As can be seen in the following table, the categories most theoretically linked with PSM are significant, while the categories that were presumed to not be linked to it show no association. This suggests that this proposed measure may capture all three motivations of PSM and that this metric is **not** picking up on nationalism or morality.

Table 3.5: Regression of “Good Citizen” Attributes on the Proposed Measure of PSM

	Coef.	Std. Err.
Support for the Country	4.056723	2.867353
Active Orientation to Matters in the Country	9.421803	2.934408
Community Virtues	10.44958	2.934408
Social Behavior	8.21347	3.085206
Moral Attributes	0.3035224	3.314002
Constant	44.35597	0.664087
N = 930		
R2 = 0.0299		

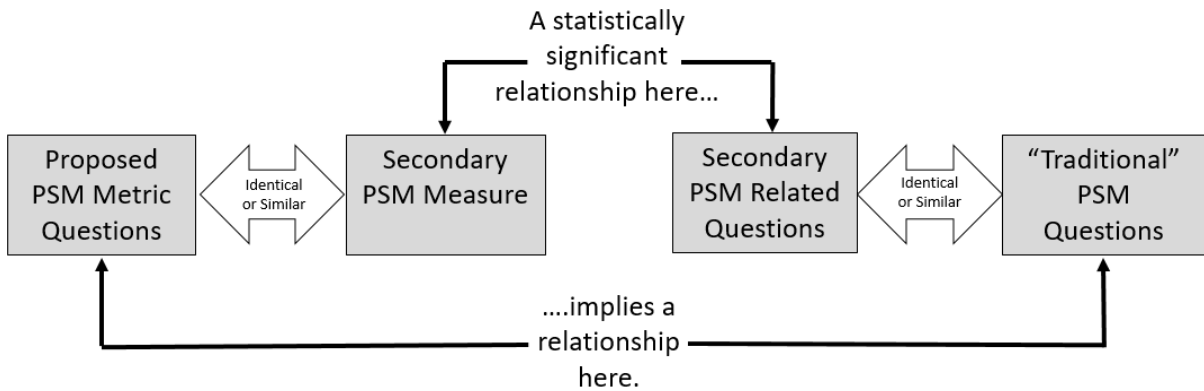
Note: Results significant at the 0.05-level are in **bold**

While these results suggest that, as expected, this proposed measure does capture PSM, these results are not definitive. The categories of responses were not perfectly identical to those that have been used to measure PSM. Additionally, this question asked the respondents to think of what a “good citizen” should do, not what the respondent necessarily does. This projection may not align exactly with the attitudes and behaviors of those surveyed. In addition, this only measured PSM in adults; a validation involving children would add an additional degree of robustness. That said, it was notable that the proposed measure does not appear to be linked to nationalism or morality, as it could have been argued to have been a proxy measure for those attitudes. Given these limitations, two additional tests were also conducted to further validate this measure: one that focused on self-reported measures from adults, and another that focused on self-reported results from children.

3.7 Additional Validation Tests of PSM Measure - American National Election Study and the National Civic and Political Health Survey

The following figure describes what the models in this section are testing. Secondary data sets are being used to examine if there is a statistically significant relationship between a suggested measure of PSM and questions that are similar in scope to those that have been used to measure PSM. That relationship, in turns, provides support for the existence of an association between the proposed measure of PSM for this dissertation and the traditional questions that capture PSM.

Figure 3.1: Model of the Association Between the Proposed and Actual Measures of PSM



The data sets used to validate the proposed measure of PSM have to meet specific criteria. The survey had to include questions that are similar in scope to those that have been used to measure PSM in prior studies. Additionally, they must have questions that are similar to the proposed method of measuring PSM. Finally, given the generational component in this dissertation, they had to survey either adults or young people.

The first survey to meet these qualifications is the 1996 American National Election Study (ANES). This survey has been conducted by the Center for Political Studies of the Institute for Social Research at the University of Michigan for every presidential election dating back to 1948. The study population is voting-age adults.

The additional survey that will be used is the 2006 National Civic and Political Health Survey (CPHS). This survey was conducted by Princeton Survey Research International for the Center for Information & Research on Civic Learning & Engagement at Tufts University. The survey provided a nationally representative sample of teenagers and young adults; over 1600 individuals between the ages of 15 and 25 were interviewed.

As noted earlier, the data sets had to have questions that were similar to those that have been proposed to measure PSM in this dissertation. Fortunately, there were several questions that were almost identical.⁵ For example, the public affairs interest question was the same across the data sets and the campaign acts questions in the ANES and CPHS surveys asked about many of the same campaign activities, such as wearing a campaign button, persuading others, and contributing money to a campaign. For political knowledge, the respondents were asked to correctly identify the offices held by Al Gore, William Rehnquist, Boris Yeltsin, and Newt Gingrich in the ANES, while in the CPHS, the respondents were asked how many votes were required to override a presidential veto, to identify the qualification to vote in a federal election, to identify a member of the president's cabinet, and to identify a permanent member of the UN Security Council. For group membership, the respondents in both surveys were asked to name how many groups to which they belonged.⁶

⁵ The exact question wording can be found in Appendices D and E.

⁶ Additionally, the measures were determined to be unidimensional and reliable via exploratory factor analysis and a check of their mean interitem correlations, making them similar to the proposed measure of PSM using the Youth-Panel Socialization Survey and the CCES. The measures were then rescaled using the "percent of maximum possible" method to make them comparable to the other suggested measures of PSM.

Table 3.5: The Proposed Measure of PSM vs the ANES and CPHS Measures of PSM

<u>Proposed Questions</u>	<u>ANES PSM Questions</u>	<u>CPHS PSM Questions</u>
Public Interest Questions	Public Interest Question (Identical to Proposed Question)	Public Interest Question (Identical to Proposed Question)
Campaign Acts Questions	Campaign Acts Question (Identical to Proposed Question)	Campaign Acts Question (Identical to Proposed Question)
Political Knowledge Questions	The respondents were asked to correctly identify the offices held by Al Gore, William Rehnquist, Boris Yeltsin, and Newt Gingrich.	Respondents were asked how many votes were required to override a presidential veto, to identify the qualification to vote in a federal election, to identify a member of the president’s cabinet, and to identify a permanent member of the UN Security Council
Group Membership Questions	The respondents were asked to name how many groups to which they belonged.	The respondents were asked to name how many groups to which they belonged.

Second, the data sets also had to have questions that were similar to those that have been used to tap into the rational, affective, and normative motivations of PSM. For the rational motive, the questions found in the ANES included, “Do you think that quite a few people running the government are crooked,” and “People like me don’t have any say about what the government does.” The questions found in the CPHS included, “On the whole, would you say the political system in this country is or is not responsive to the genuine needs of the public, or haven’t you thought much about it,” and “Government often does a better a job than people give it credit for.” While normally used in measures of political efficacy, these questions are similar to those that have been used to measure the rational motivation of PSM. Again, Perry (1996) defined the rational motive as “...actions grounded in individual utility maximization” (6). What these measures capture is an attitude about one’s ability to affect change in politics. As was noted

by Perry (1996), “A rational motive that some argue draws individuals to public service is the opportunity to participate in the formulation of public policy” (6). If they did not think they could change politics, they would, by definition, have lower political efficacy.

Several questions could tap into the normative motivation of PSM. From the ANES, those questions included, “If you were selected to serve on a jury, would you be happy to do so or would you rather not serve,” and “Were you able to devote any time to volunteer work in the last 12 months?” From the CPHS, those questions included, “Have you ever spent time participating in any community service or volunteer activity,” and “Besides volunteering time with organized groups, have you ever volunteered some of your time to help others on your own?” These are similar in scope to questions pertaining to the commitment to the public interest that were asked by Perry (1996) (I unselfishly contribute to my community; meaningful public service is important to me).

There are also questions that are similar to those that have been used to measure affective motivations of PSM. These questions include how much respondents in the ANES disagree with the following statements: “People tend to pay more attention to the well-being of others than they should,” and, “It is best not to get too involved in taking care of other people's needs.” For the CPHS, the questions included, “Most of the time people try to be helpful,” and, “It is my responsibility to get involved to make things better for society.” These questions are similar in kind to questions such as “I am rarely moved by the plight of the underprivileged,” and, “Considering the welfare of others is very important,” which were used by Perry (1996) and Kim et al. (2013), respectively.

Table 3.7 - Proposed and Traditional Questions for Measuring PSM by Motivation in the ANES and CPHS

	<u>ANES PSM Related Questions</u>	<u>CPHS PSM Related Questions</u>	<u>"Traditional" Questions</u>
Rational	"Do you think that quite a few of the people running the government are crooked, not very many are, or do you think hardly any of them are crooked?"	"On the whole, would you say the political system in this country is or is not responsive to the genuine needs of the public, or haven't you thought much about it?"	"Politics is a dirty word"***
	"People like me don't have any say about what the government does."	"Government often does a better job than people give it credit for"	"The give and take of public policy-making does not appeal to me"***
Normative	"If you were selected to serve on a jury, would you be happy to do so or would you rather not serve?"	"Have you spent time participating in any community service or volunteer activity?"	"I unselfishly contribute to my community"***
	"In the last twelve months, have you worked with others or joined an organization in your community to do something about some community problem?"	"Besides volunteering time with organized groups, have you ever volunteered some of your time to help others on your own?"	"Meaningful public service is very important to me"***
	"Many people say they have less time these days to do volunteer work. What about you, were you able to devote any time to volunteer work in the last 12 months?"		"Serving the public is an important drive in my daily life"***
Affective	"People tend to pay more attention to the well-being of others than they should."	"Most of the time, people try to be helpful"	"I am rarely moved by the plight of the underprivileged"***
	"It is best not to get too involved in taking care of other people's needs."	"It is my responsibility to get involved to make things better for society"	"Considering the welfare of others is very important"*

Key: * = Kim et al. 2013; ** = Vandenabeele 2008; ***= Perry 1996

To see if these PSM-linked questions were associated with the proposed measure of PSM, the following steps were taken. First, the questions were collapsed into three distinct factors to capture the three motives of PSM. These factors were then regressed onto the measure of PSM. If these factors were statistically significant, then it suggests that the proposed measure of PSM is associated with the traditional measures of PSM.

The results of the analysis of both sets of data can be seen in the following table. The first model includes the ANES data. The rational factor is negative for the ANES data since the variables were reverse-coded, where higher agreement with the statements indicated lower PSM. The second model includes all of respondents in the CPHS who were between 15 and 25 years old, while the third model limits the sample to just those between 15 and 17. This last model most resembles the ages of the children in the Youth-Parent Socialization Panel Study. What is of immediate note is that all three factors are significant across every model. The rational, normative, and affective dimensions of PSM appear to be correlated with the proposed measure of PSM, regardless of the data set employed, the questions that are used to tap into PSM, or the ages of the populations under examination. This suggests that all three motives are captured by this suggested measure of PSM.

Table 3.8: Regression of PSM Factors on the Proposed Measure of PSM

	Model One	ANES	Model Two	CPHS (Age 15-25)	Model Three	CPHS (Age 15-17)
Variables	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Rational Factor	-2.197539	0.3361352	0.9392361	0.4130744	1.39807	0.6753072
Normative Factor	5.797622	0.3397141	5.409924	0.4097648	5.472156	0.7162656
Affective Factor	1.501334	0.3394393	2.206302	0.4150299	1.621802	0.6831208
Constant	32.55637	0.3274805	34.80229	0.4123769	35.07626	0.7143168
N	1498		1425		478	
R ²	0.2382		0.1404		0.1454	

Note: Results significant at the 0.05-level are in **bold**

Again, these results should be qualified. The questions used to capture the factors of PSM were not identical to those that have been used in previously validated measures of PSM.

Additionally, while the questions used to measure PSM were similar to those that were used in the Youth-Parent Socialization Panel Study and the CCES, they were not identical. Furthermore, these data sets were only used for verification purposes and are not used in the subsequent analysis chapters.

That said, there are some tentative conclusions that may be drawn from these verification checks. The results are similar across all of the checks: the proposed measure of PSM does appear to tap into all three of the motivations that were originally introduced by Perry and Wise (1990). Furthermore, the inclusion of two additional datasets that target both of the populations under examination in this dissertation suggests an additional degree of robustness to the findings. Also, since the ANES and CPHS data were gathered at a different point in time from the Youth-Panel Socialization Panel Study (1965 vs 1996 and 2006), these findings also suggest a

degree of temporal stability to this suggested measure of PSM. Given the results of these checks, this proposed measure of PSM will be used for the remainder of this dissertation.

Having verified the proposed measure of PSM, the rest of this chapter will describe the other data used in this dissertation. First, the Youth-Parent Socialization Panel Study data will be reviewed. This data is organized chronologically. Following this review, the CCES data will be examined.

3.8 Youth-Parent Socialization Panel Study: Parental Characteristics

The parents in the survey in 1965 make up a diverse bunch on numerous fronts. Though they have a median age of 46, 90% of the sample falls between the ages of 38 to 59; the outlying age of 25 was a parental surrogate who was interviewed. Much like the country at this time, the sample is overwhelmingly white, with less than 10% of respondents denoting any race other than “white.” Most of the respondents were women, with men making up less than 43% of those surveyed. There are vast differences with respect to education. Almost 40% of the parents did not graduate from high school, while almost 14% had at least a college degree. Incomes also exhibit much variance. About 20% have an income of less than \$5000 (\$38,321.90 in 2016 dollars), while almost 40% have an income that exceeds \$10,000 (\$76,643.81 in 2016) and 15% making more than \$15,000 (\$114,965.71 in 2016).

Table 3.9: Demographics of Parents

Demographics	Min	Max	Mean	SD
Age	25	75	46.8	6.6
White	0	1	0.889	0.32
Male	0	1	0.416	0.49
College	0	1	0.24	0.18

Taking a closer look at these descriptive statistics, a few unsurprising patterns begin to emerge. For example, almost 70% of those with a college degree make at least \$10,000 (\$76,643.81 in 2016), while only 16% of those with less than a high school diploma fall into the same income bracket. There is also a noticeable divide in education by sex, as almost 32% of men have a college degree; the same can be said of less than 20% of women. In contrast, almost 30% of men have only a high school diploma, while over 40% of women are similarly positioned.

Turning now to politics, it is seen that these individuals hold diverse political views. About 56% identify as Democrats, while about 35% identify as Republicans. This divide continued into vote choice. Over 60% say they either voted for or preferred the incumbent Democratic nominee Lyndon Johnson in the presidential election of 1964, while only about 30% voiced support for the Republican nominee, Barry Goldwater. With respect to employment, almost one-quarter worked for the government.

Turning to PSM, the political events in which these parents engaged in are diverse. Over 40% talked to someone and tried to persuade them to vote for a particular candidate or issue. Most conversations involved family, friends, and coworkers. Only about 25% attended a political meeting or rally, and less than 20% worked on behalf of a party, candidate, or issue. About 30% wore a campaign button or displayed a bumper sticker on their car, while almost a quarter gave money to a political party or candidate. However, these activities were not clustered among the same people. The largest single category of engagement included 40% of the people, with about 60% engaged in at least one of the activities. Over one-third were involved in one or two acts, while about a quarter were involved in at least three acts.

Table 3.10: Percentage of Parents Engaged in Campaign Events

Variable	Percentage
Persuade	40.55
Attend Rally	25.89
Work	15.70
Display Button	29.21
Donate Money	23.72

Looking now at interest in public affairs, over half said that they followed what was going on in government and public affairs most of the time. Almost one-third said that they followed it some of the time, while only 6% said that they hardly followed public affairs at all. Turning to political knowledge, it is seen that less than 2% were unable to answer a single question correctly, while about 17% were able to answer no more than three questions correctly. Over 50% either answered four or five questions correctly, while almost 30% missed no more than one answer. The most commonly correctly answered questions involved either recalling the name of the sitting governor in the respondent's state or recalling the political party of Franklin Roosevelt; almost 95% of people for each question answered those correctly. Most people struggled to recall the length of a senator's term or the number of justices on the United States Supreme Court; only 30% knew the former and 25% knew the latter.

Group membership also varied with this group. Over 40% belonged to a church group, while less than 20% were members of a fraternal group. Almost 20% were part of a business or professional organization, but only 7% were part of a civic group. Three percent were members of a civil rights or civil liberties organization, while 16% were part of a neighborhood club. About 15% were part of a sports club, while about 20% were part of an informal group, such as a bridge or poker club. Less than 6% were in a farm group, while less than 10% were in a women's

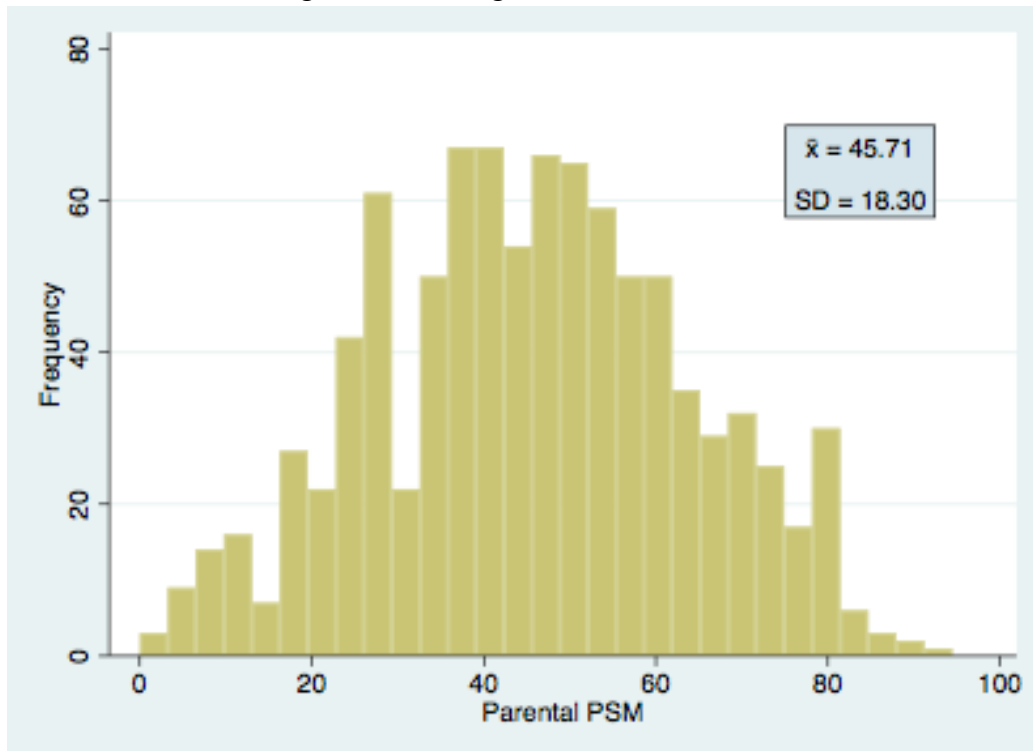
group. Over 15% were members of other organizations, such as youth-related organizations like the Boy Scouts, veterans organizations, or hobby clubs. The majority of people belong to at least one club, with less than 30% saying that they were not in any organization. Almost half were involved in one to two groups while about 5% claimed membership in at least five groups.

When converted to a unidimensional measure of PSM, the mean is 45.7, with a standard deviation of 18.3. Values range from 0 to 94.4, which almost cover the entire range of possible values. Based on a histogram of this variable, its distribution appears to be close to normal.

Table 3.11: Summary Statistics for Parental PSM

Variable	Min	Max	Mean	SD
Campaign Events	0	5.00	1.36	1.55
Interest in Public Affairs	0	3.00	2.25	0.91
Political Knowledge	0	6.00	3.72	1.44
Org. Membership	0	9.00	1.65	1.60
PSM Index	0	94.44	45.71	18.30

Figure 3.2: Histogram of Parental PSM



3.9 Youth-Parent Socialization Panel Study: Children Characteristics

The demographic characteristics of the children will now be examined. There is a fairly even split between men and women. Since those surveyed were seniors in high school, all had the same level of education. Coupled with this, it is not surprising that over three-quarters of the sample is 18 years of age, with more than 98% younger than 20. Much like their parents, there is little variance regarding race, as over 90% of the children identify as white.

Table 3.12: Demographics of Children

Variable	Min	Max	Mean	SD
Age	16	24	18.15	0.57
White	0	1	0.91	0.28
Male	0	1	0.49	0.5

Though they are similar in their educational attainment, there are considerable differences with respect to their school activities. Over 95% said that they liked going to school, with about a third saying that they enjoyed school for social reasons and quarter saying they liked it because they enjoyed learning.

The children were also remarkably similar to the parents with respect to their partisanship, but differed slightly with respect to their vote choice. 56% were members of the Democratic Party, while only 31% were Republicans. When asked who they would have supported in the 1964 presidential election, 70% said Johnson, while only a quarter said Goldwater. As compared to their parents, there was almost a ten-point difference in their support for Johnson, suggesting that the students may be more Democratic in their practice of politics than their parents.

The respondents also noted that they were close to their parents. About 87% said that they were at least pretty close to their father, while over 95% said the same about their mother. However, there is a sharp divide in the percentage of those who say they are “very close” as opposed to “pretty close.” About 40% said they were very close to their father. That number was twenty percentage points higher for mothers, as 60% said they were very close to their moms.

There are marked differences with respect to their level of involvement in their schools. Many of them were officers in organizations in high school. Almost 60% said that they had been an officer or committee chairman at some point, with over 40% serving as an officer at multiple times. A similar number said that they had run for an elective office either in school or out of school, with winners outnumbering losers by a 3-to-1 ratio.

Given the links between religious practice and PSM (Perry 1997, Moynihan and Pandey 2007), it is worthwhile to examine how these children felt about faith. When asked about their religious practices and beliefs, most appeared to be fairly active and devout. Of all the students, about 4% were Jewish and less than 2% combined identified as agnostic, atheist, or indicated that they had no preference. Everyone else identified with some sect of Christianity. About one-fifth were Catholic, while another fifth were Baptist. Around 15% identified as Methodist. When asked about the frequency with which they attended worship, almost two-thirds said that they attended weekly, with another 17% saying they attended at least once or twice a month. Only two percent of those who identified with a religion said that they never attended worship. When asked about their interpretation of the Bible, over 40% said that the Bible was the inerrant Word of God, while about half said that it was written by men who were inspired by God but contained

some human error. Less than four percent said that the Bible was not at all influenced by God, while around one percent claimed that the Bible was irrelevant to modern life.

Table 3.13: Church Attendance

Category	Percentage
Almost Every Week	65.62
Once or Twice a Month	17.92
A Few Times a Year	14.31
Never	2.15

Table 3.14: Beliefs about the Bible

Category	Percentage
God's Word	44.67
Inspired by God	50.8
God Had Nothing To Do	3.6
Worth Little Today	0.9

Turning to PSM, the students also differed with respect to their school activities. Almost 30% were members of the school newspaper. About 20% were members of hobby clubs, like a horseback riding club or photography club. Over 30% were in clubs that were subject-specific to high school, such as science club or social studies club. Over one-third were in occupational clubs, such as Future Farmers of America or Future Homemakers. A similar number were in neighborhood clubs. Over 70% were members of a religious group, such as a mission group or youth group. About 30% were in a youth service organization, such as the YMCA or the Boy Scouts. Another 27% were in other clubs like drama club, pep club, or a dance committee. Almost one-third were involved in sports in their high school, while 30% were in band or choir, while less than 10% were on the debate team.

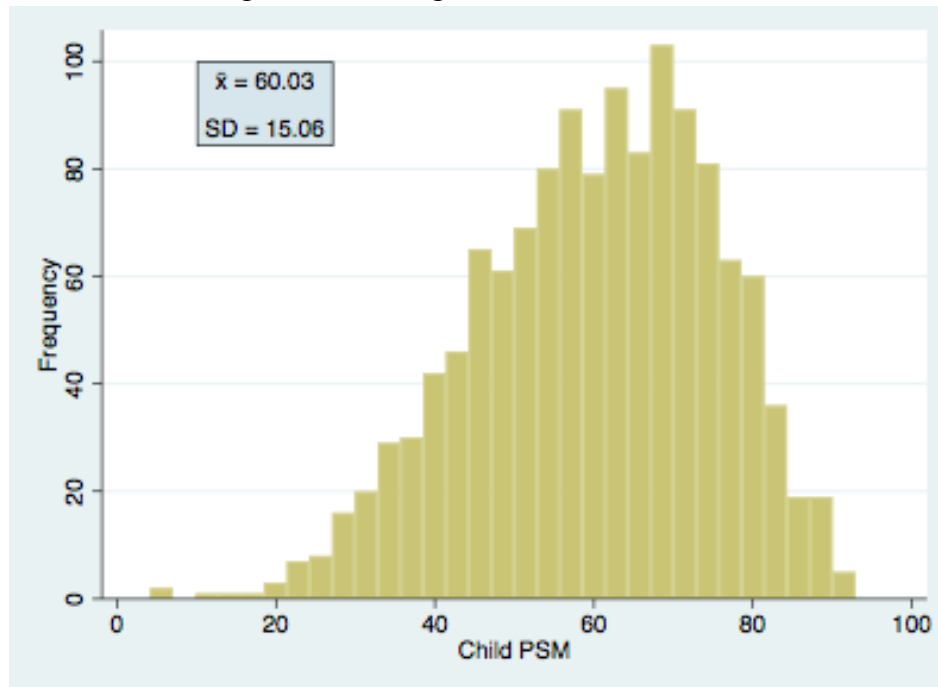
These students also had diverse levels of political interest and awareness. Overall, almost 85% said they followed public affairs either most of the time or some of the time, with numbers fairly split between those two groups. They have varying degrees of political knowledge. About half correctly knew the number of years that were in a Senate term, while about a quarter correctly identified Marshal Tito as the leader of Yugoslavia. About 40% knew that there were nine members on the Supreme Court, while about 90% could identify their governor. About 85% knew that Germany was the home to many concentration camps in World War II, while two-thirds knew that Franklin Roosevelt was a Democrat. Overall, less than 2% could not answer one of the political knowledge questions. Most people could answer half of the questions correctly, while one-in-ten answered every question correctly.

Given their political knowledge, it is not surprising that the students were voracious consumers of news. Almost half read a newspaper daily, with another third reading one two to three times a week. Fewer listened to the radio for news, with a little over 40% listening daily and another 15% listening two to three times a week, but over one-third never listened. Television was more popular overall than radio, but fewer engaged with it as often as they did radio or newspapers. Less than 40% watched it daily, and about a third watched it a few times a week, but only 11% never watched it. About two-thirds read magazines concerning public affairs with some regularity. In total, the index measure of PSM averages 60, with a range from about four to 93 with a slight skew.

Table 3.15: Descriptives and Summary of PSM for Children

	N	Min	Max	Mean
Interest in Public Affairs	1348	0	3	2.25
Campaign Events	1345	0	16	10.62
Political Knowledge	1334	0	6	3.61
Org. Membership	1323	0	9	3.46
PSM Index	1306	4.17	92.88	60.03

Figure 3.3: Histogram of Childhood PSM



3.10 Youth-Parent Socialization Panel Study: Adult Characteristics

This section combines the interviews with the children as they become adults from 1973, 1982, and 1997 to see if and how they changed over time. First, a look at their demographics. By 1973, over two-thirds of the respondents were married. This number increased from 67% to 76% between 1973 and 1982 and remained relatively unchanged by 1997. Many of them also had children; while about 55% did not have any kids by 1973, that number fell to around 20% by 1982 and stayed that way through 1997. Many of the respondents also graduated from college.

Over one-third had earned at least a bachelor's degree by 1973. This number increased to 43% by 1982, and almost half had a college degree by 1997.

Table 3.16: Trends in Marriage and Education for Adults

	1973	1982	1997
Married	67%	76%	77%
College	36%	43%	48%

Did their religious beliefs or practices change as well? Over time, there was a large shift in the frequency of religious attendance. From 1973 to 1997, those saying that they attended church at least once a week increased by ten percentage points. Likewise, those saying that they never attended church saw a decline of a similar magnitude. Interestingly, this was not marked by any dramatic change in the religious views of the respondents. Slightly more were likely to say that the Bible was God’s inerrant word in 1997 than in 1973, but this difference was less than five percentage points.

There were some changes in the religious identities of the respondents. In 1973, more divorced themselves from any sort of religious identification, but few were willing to say that they lacked faith. Almost 13% said that they had “no preference” when asked about their religion, but less than one percent identified as either atheist or agnostic. By 1982, about 10% did not identify with a religious denomination; another half percent identified as either atheist or agnostic. Those that identified with a faith other than Christianity made up about 6%. In 1997, about 8% reported no religious preference, with less than 1% identifying as atheist or agnostic. About 7% identified with a non-Christian faith.

Table 3.17: Trends in Church Attendance

Variables	1973	1982	1997
Almost Every Week	28.04%	36.30%	38.93%
Once or Twice a Month	12.98%	13.13%	13.16%
A Few Times a Year	32.79%	28.63%	29.52%
Never	27.52%	21.23%	17.54%

Table 3.18: Trends in Beliefs About the Bible

Variables	1973	1982	1997
God's Word	27.89%	31.1%	32.41%
Inspired by God	57.12%	56.21%	54.65%
God Had Nothing To Do	9.27%	7.93%	7.91%
Worth Little Today	2.67%	2.38%	2.35%

The partisanship of the respondents remained fairly stable over time. In 1973, over 40% did not identify with a political party, while about a third were Democrats and less than 20% were Republicans. These numbers were echoed in 1982. In 1997, fewer respondents did not identify with a party, and a larger percentage identified as Republican.

Did PSM change much over this time? As is shown in the following chart, the overall level of PSM remained very constant between 1973 and 1982, shifting from around 44 to 45. However, it did increase by about 5 points between 1982 and 1997, while the standard deviation also increased. While this aggregate measure masks any individual level changes, it does suggest that PSM does change, and that it may be more volatile later in life.

Table 3.19: Trends in PSM

Year	Min	Max	Mean	St.Dev
1973	0	95	43.8	15.7
1982	0	91.67	44.99	15.87
1997	2.27	97.73	50.46	17.4

How does this compare to the correlations and changes between government employment? The following tables show the percentage working as government employees. Employment in government became more stable over time. For comparison, over half of those that worked for the government in 1973 no longer did by 1982. Government employment grew during that time, however; for every one person that left government, 1.4 people joined. In contrast, only one-third of government employees left the bureaucracy from 1982 to 1997, and this was more than offset by people joining the bureaucracy. For every person that left the government during this period, almost 2.5 joined the bureaucracy. Also, twice the number of people stayed bureaucrats between 1982 and 1997 than in 1973 to 1982. Finally, about 4% were employed by government during all three waves of the survey.

Table 3.20: Trends in Government Employment

Year	Percentage
1973	12.70%
1982	15.30%
1997	23.30%

3.11 CCES Data

While the Youth-Parent Socialization Panel Study is useful for examining the antecedents of and longitudinal changes in PSM, it can not be used to address differences in PSM across different levels of government. To do so, data from the Cooperative Congressional Election Study (CCES) will be used. This section describes the characteristics of those who were surveyed for the CCES in 2006. The sample was fairly evenly split between men and women, with men making up 47.8% of those surveyed. Since this was not a cohort analysis like the previous data set, there was much more variance with respect to age. The average age was 49,

with a standard deviation of 15 years. While the 25th percentile was 38 and the 75th was 60, the ages ranged from 18 to 95. There was also more heterogeneity with respect to race. About three-quarters of the sample was white, while about 10% was black and another 9% identified as Hispanic.

Table 3.21: Demographics of CCEs Respondents

	Min	Max	Mean	SD
White	0	1	0.76	0.43
Married	0	1	0.62	0.48
Age	18	95	49.1	15.3
College	0	1	0.24	0.43
Born Again	0	1	0.3	0.46
Church Att	0	1	0.27	0.44

Those in the sample also had varied educational experiences and incomes. About 3% had not graduated from college, while about 30% each had either graduated from high school or had some education beyond high school not resulting in a degree. About 25% had earned a college degree, with about two-fifths of them having graduating from graduate school. Turning to income, it is seen that about one-fifth of those surveyed made less than \$30,000 (about \$36,000 in 2016), while about half made less than \$60,000 (\$72,000). About 12% made more than \$100,000 (\$120,000), with about half of those individuals making in excess of \$150,000 (\$180,000).

The sample also appeared to be evenly divided on partisanship. About 20% identified as either a strong Democrat or a strong Republican, while another 13% called themselves weak partisans. Slightly more identified as leaning Democrats and 11% said they were true Independents. With respect to ideology, about one-fifth of the sample put themselves between 0

and 30 on an ideological spectrum, with 0 being most liberal and 100 being most conservative. Fully 40% of those surveyed put themselves between 0 and 49, with another 10% at 50. Another fifth put themselves between 80 and 100.

There is also more diversity on the topic of religion. About five-sevenths of the sample identified as Christian, while 20% did not identify with a religion. About two-fifths of those who identified as Christians identified as “born again.” When asked how often they attended a religious service, one-quarter said they attended at least weekly, while almost half said that they almost never or never attend.

There is also much nuance concerning employment. First, it is seen that almost half of those surveyed worked full-time, with an additional 8% working part-time. Approximately 3% were unemployed or temporarily laid off from work. One in every five was retired, while almost 8% were homemakers and 4% were students. Among those working, about 70% were in a for-profit field. Government employees made up about 15% of the sample, with two-thirds of those working at either the state or local levels. Another 10% worked in non-profit industries.

Table 3.22: Employment Sector for CCES Respondents

Category	Percentage
For Profit	54.22
Non Profit	10.65
Local or State	10.66
Federal	3.43
Military	0.87
Self For-Profit	14.15
Self Non-Profit	0.56
Other	5.46

Looking at PSM, when asked about their level of interest in public affairs, almost two-thirds said that they were “very much interested.” Another 30% said that they were “somewhat interested,” while about 7% said they were “not much interested.” Turning to campaign acts, it is seen that about 30% had donated money to a candidate or political party, while about 60% tried to persuade someone to vote a particular way. In total, about one-third did neither campaign act, while about 40% engaged in one act, with about a quarter of the sample engaging in both. With respect to political knowledge, almost 95% knew that the House of Representatives was controlled by Democrats, while about 75% knew that Democrats gained the majority in the midterms.

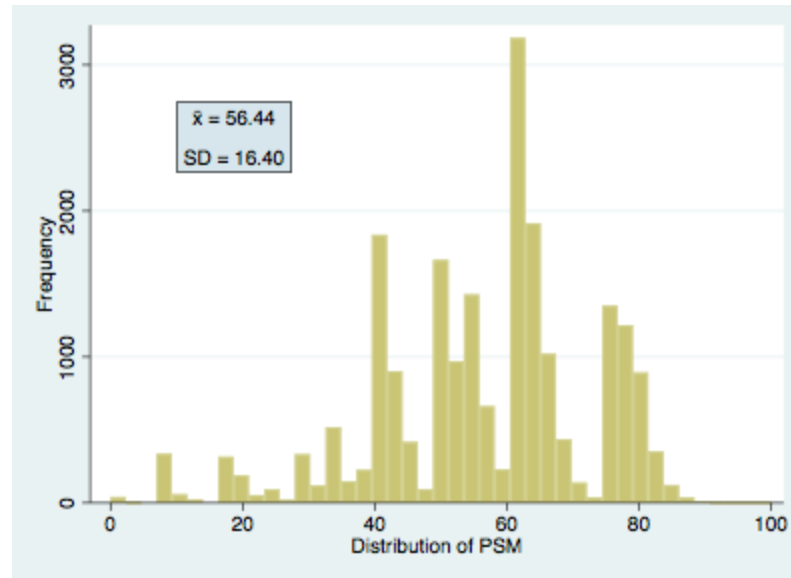
Turning now to group membership, about one-quarter were members of AAA, while one-fifth were members of AARP. Almost 10% were members of the NRA, while less than 2% were members of the League of Women Voters. About 6% were members of the PTA or a similar parent-teacher organization, About 5% were members of the Veterans of Foreign Wars; a similar number were members of the American Legion. About 4% were members of the Sierra Club. About 3% were members of the National Abortion and Reproductive Rights Action League (NARAL), and a similar number were members of the National Right to Life. About 2% were members of the Christian Coalition of America. In total, the median number of groups someone belonged to was one group, with a standard deviation around one group.

Table 3.23: Descriptives of PSM for CCES Respondents

	Min	Max	Mean	SD
PSMindex	0	100	56.44	16.4

When looking at the index measure of PSM, the mean is 56.4, with a standard deviation of 16.4. Values range from 0 to 100, and the distribution is slightly skewed.

Figure 3.4: Histogram of PSM for CCES Respondents



3.12 Discussion and Conclusion

The chapter met several objectives. First, it described the sources of the data for this dissertation. The goals and origins of the Youth-Parental Socialization Panel Study and the CCES were detailed. Their usefulness in answering the questions motivating this dissertation was reviewed.

Next, this chapter provided a definition of PSM. Drawing on an overview of how PSM has been defined elsewhere, it was found that prior measures of PSM focused on serving others. Therefore, PSM was conceptualized as behaviors and attitudes oriented towards serving others.

Then, it described in detail how PSM was measured. Based on previous measures of PSM, four different questions were used to measure PSM: interest in public affairs, political knowledge, a count of engagement in political activities, and a count of membership in service organizations. The variables were then standardized using the POMP method due to the longitudinal nature of the data. To ensure that the variables could be combined into an index,

they were determined to be both unidimensional and reliable via factor analysis and the calculation of their mean interitem correlations.

The proposed measure was then subject to several verification tests to ensure that it tapped into PSM. First, the measure was compared to additional questions from the Youth-Parent Socialization Survey. Next, it was compared to data from two additional data sets. In every case, the proposed measure appeared to be strongly associated with more traditional measures of PSM.

Following that, the rest of the data that will be used in this dissertation was reviewed. Key demographic variables were noted. Additionally, the measures of PSM were described.

This dissertation will attempt to examine multiple questions. What are the antecedents to PSM? Does parental PSM affect childhood PSM, and do either affect later PSM? Is PSM static or dynamic, and what is the direction of causality between government employment and high PSM? Does PSM vary at different levels of government? This data allows for such an examination, and now these questions will be answered.

4 Antecedents of Public Service Motivation

4.1 Introduction

This chapter examines the first question motivating this dissertation: what are the antecedents of PSM? To do so, information from the Jennings-Niemi data set will be used. Specifically, the models will use data gathered from the parents in 1965 as well as from the children in both 1965 and 1973.

A series of specific models will be used to examine this question. First, a nested regression model will examine the effect of parental and childhood attitudes and behaviors on childhood PSM. Then, parental and childhood PSM will be used to model PSM in young adulthood in a separate nested regression model

The uniqueness of these models cannot be understated. This is the first time that direct measures of parental PSM will be included in models of the antecedents of PSM. Furthermore, it is also the first time that childhood measures of PSM will be included in such a model. This allows for the first direct examination of two important factors that are often suggested to have a large impact on PSM.

The chapter will begin with an overview of the relevant data to better contextualize the results. It will then describe the selection of the statistical models and then present the results. The chapter will conclude with a discussion of the findings and their implications.

4.2 Data

The key pieces of data for this analysis are the measures of parental PSM, childhood PSM, and adult PSM. Before wading into the statistical analysis, these variables will be described. Also, their correlations will be examined.

The following table presents the descriptive statistics for PSM. While all three have similar ranges of PSM, the means do differ. Parental PSM and adult PSM have almost identical means, but the average level of PSM in children is a little higher.

Table 4.1: Descriptive Statistics for PSM

Observation	Min	Max	Mean	SD
Parent - 1965	0	94.4	45.71	18.3
Child - 1965	4.17	92.88	60.03	15.1
Child - 1973	0	95	43.8	15.7

To gain a better understanding of the links between these measures of PSM, the following table shows their correlations. There are several important takeaways from that table. First, there appears to be a substantial correlation between parental PSM and childhood PSM. Furthermore, that correlation remains relatively unchanged when adult PSM is also considered; that is, the correlation between parental PSM and childhood PSM is just as high when examining the correlation between parental PSM and the PSM of those children eight years later. This suggests that not only may parental PSM still exert some effect on later PSM, but that it may exert an effect similar to what it made in childhood. Also, there is an even higher correlation between childhood PSM and adult PSM, suggesting that those two measures are tethered together. Given that it was hypothesized that parental PSM would impact childhood PSM, and that both of those measures would influence adult PSM, this evidence is in line with the proposed hypotheses.

Table 4.2: Correlations for PSM

	Parental PSM	Childhood PSM
Childhood PSM	0.3255	1
1973 PSM	0.3206	0.4974

4.3 Antecedents of PSM in Childhood

Before beginning any formal analysis, it is important to recall that the question motivating this section of the dissertation is, “What are the causes of PSM?” While some have studied the antecedents of PSM (Perry 1997, Perry et al. 2008, Vandenabeele 2008), these studies failed to analyze children and many relied on recall data. If PSM is dynamic, then PSM collected after employment may be influenced by other factors and may therefore be biased. Additionally, recall data can be unreliable. By using data gathered prior to employment and that includes actual measures reported by parents at the time of the first-wave interview which is thus not subject to recall bias, this study hopes to present a more accurate picture of the impact of parental and childhood traits on PSM.

The first hypothesis states that parental characteristics, such as parental PSM, education, and working for the government, will have a positive effect on childhood PSM. Past studies have linked numerous variables from parents to PSM. Perry (1997) found that witnessing similar behavior in parents had a positive effect on PSM. Several studies have also found that higher education is associated with increased PSM (Pandey and Stayk 2008; Vandenabeele 2011). Vandenabeele (2011) also found that having parents who work for government is positively associated with PSM. Therefore, the parental variables that will be included are parental PSM, parental education, and parental vocation. Education will be broken into three groups: those without a high school diploma; those with only a high school diploma; and those with a college degree. Vocation will be dummy coded for government employment, while parental PSM will be a continuous variable.

These key variables of interest are inspired by the literature on socialization. Recall that socialization functions via observation or discussion, or via direct or indirect means. Education could be transmitted either way: the children could see the differences between parents with varying levels of education or parents could discuss the importance of school. A similar argument could be made for PSM: children could see how their parents are involved in their communities or children may be told about the importance of serving others. Since beliefs, attitudes, and values are some of the most shared elements via socialization within families (Gecas 1981), and since PSM has been defined as “the beliefs, values and attitudes that go beyond self-interest...” (Vandenabeele 2007, 547), it is reasonable to suspect that PSM could be socialized from parents to children.

The second hypothesis states that the childhood characteristics, such as being religious, will have a positive effect on childhood PSM. Several personal traits or behaviors have been associated with PSM, but with inconsistent results. The role of gender is nuanced; men and women do not have the same scores across all dimensions of PSM (DeHart-Davis et al. 2006; Vandenabeele 2011.) Given that numerous variables are used in this study to measure PSM, this means that it may be difficult to forecast an effect for gender. Race is also a multifaceted variable. While studies have shown that minorities are more attracted to careers in the public sector (Blank 1985), there does not appear to be a link between race and PSM (Bright 2005). Turning to religion, past studies have shown a link between religious affiliation and involvement and PSM (Perry 1997, Moynihan and Pandey 2007). Therefore, gender, religious practice, and race will be included as independent variables. While the direction of the effect of sex and race on PSM is unknown, it is reasonable to assume, based on the literature, that religion will have a

positive effect on PSM. Sex and race will be dummy coded. Two variables will measure religious practice: belief that the Bible is the Word of God will be dummy coded, as will whether or not the person attended church at least once a week.

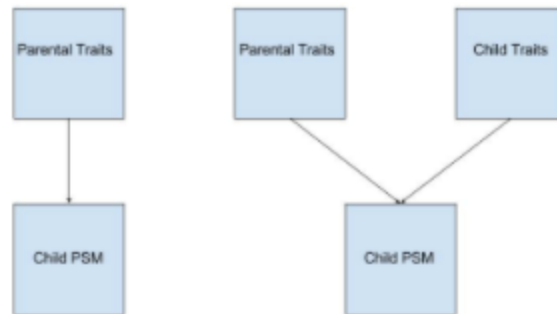
Partisanship also has a muddled relationship with PSM. While there is a school of thought that suggests that bureaucrats are more likely to be liberal and to vote more liberal than the rest of the population (Blais et al. 1990; Garand et al. 1991) others have argued that there is a weak or non-existent relationship between government employment, ideology, and vote choice (Jensen et al. 2009; Bednarczuk 2017; Bednarczuk 2018). However, Vandenabeele (2011) did find that those that were members of leftist parties likely had higher PSM in a study of Belgian bureaucrats. Furthermore, there have been a host of studies that have found a link between the strength of party identification and political involvement. In a meta-study of voter turnout literature, Smets and van Ham (2013) found that party identification had a consistent effect on turnout. This effect can also transcend generations. For example, Plutzer (2002) found that parental strength of partisanship had an impact on voter turnout in children throughout the early part of their lives, even accounting for events that also impact turnout, such as attending college or moving. Given this background, what will be measured is not with which party a person has identified, but if they identify at all with a political party. This will be dummy coded.

As in Vandenabeele (2011)'s study of the antecedents of PSM, nested regression will be used. In a nested regression, a model is run various times, with a new "block" of independent variables entered each time. Variables are normally grouped into "blocks" according to their hypothesized temporal ordering; i.e., those variables that are "older" should be initially entered, followed by those that have occurred more recently (Cohen and Cohen 1983). For example, in

Vandenabeele's (2011) model, the blocks of variables concerned demographics, then education, and then employment. As each new block is added, the additional chi square that is added to the model is statistically tested to see if the independent variables in the new block collectively matter.

While a nested regression is similar to a stepwise regression, they do differ in important regards. A stepwise regression systematically adds or removes independent variables based on a predetermined criterion to determine the best-fitting model. While these models can be useful when trying to identify small, relevant subset of independent variables, they also have an increased likelihood of arriving at findings based on chance and tend to be atheoretical (Judd and McClelland 1989). Nested regression, on the other hand, features variables that are grouped together and added simultaneously for theoretical reasons and does not test to exclude potential individual covariates.

Figure 4.1: Nested Regression for Childhood PSM



The index variable for PSM is the dependent variable in this nested regression model. Given the temporal ordering of the variables of interest there will be two blocks. The first will be a block of parental characteristics; the second will have characteristics of the children themselves.

The results of the nested regression can be seen in the following table. First, parental characteristics will be analyzed. It is seen that the parent's PSM, education, and work experience all impact their child's PSM. Having a parent that obtained some schooling beyond high school resulted in a modest increase in PSM, while having a parent who graduated from college had an even larger impact.

Counter-intuitively, those who had a parent who was a bureaucrat at the time of the survey typically had less PSM than those who did not. As a check, the regression was re-run using each of the four categories of PSM as the dependent variable. Government employment was only significant when the dependent variable was "campaign acts." This suggests that perhaps those in the home of bureaucrats are socialized away from the more politically-themed aspects of PSM. This would be in keeping with the nonpartisan nature of much of bureaucratic work.

Additionally, parental PSM exerted a direct effect on child PSM; for every 10 point increase in parental PSM, child PSM increased by 1.6 points. These variables clearly show that parental characteristics impact childhood PSM, but what happens when the characteristics of the children themselves are added to the model? Do they matter in a statistical and substantive fashion?

Table 4.3: Nested Regression Model for Childhood PSM

Variables	Coef.	Std. Err.	Coef.	Std. Err.
Parent PSM	0.1629071	0.0304518	0.142997	0.0300403
Parent - HS	2.65374	1.140044	2.324559	1.143531
Parent - College	3.469918	0.789461	3.366138	0.8064671
Parent - Bureaucrat	-2.208771	1.175998	-2.494488	1.144412
Child - Male			1.358329	0.9518565
Child - White			-0.4009753	1.794292
Child - Partisan			4.261345	1.61077
Child - Church Att.			3.797754	1.026831
Child - Word of God			-3.849165	1.007054
Constant	51.43363	1.323162	47.78113	2.634747
CHI SQ	25.22		30.98	
R SQ	0.088		0.1205	
DELTA CHI SQ			5.76	

*Note: Variables in **bold** are significant at the 0.05 level

Turning to the full model, with respect to demographic variables, neither sex nor race had an effect. Identifying with a political party increased PSM by more than four points, while attending church on a weekly basis increased it by almost four points. However, possessing a fundamentalist view of the Bible had a negative effect on par with the effect size of church attendance. Additionally, the increase in the chi square was significant as well, providing further evidence that the childhood variables should be included.

Importantly, all of the parental characteristics were still significant and the coefficients were only slightly attenuated. Having a parent who graduated from college increased PSM by a little more than three points; a parent who was only a high school graduate contributed slightly more than two points to PSM. Moving from the minimum to the maximum value of parental

PSM increased PSM in children by over 14 points. Nothing in the model had the potential to impact childhood PSM like parental PSM.

In summary, mixed support was found for the two proposed hypotheses. While parental education and PSM had a positive effect on childhood PSM, parental employment in the public sector had a negative effect. Additionally, religion exerted both a positive and negative effect on PSM. Furthermore, partisanship was found to be significant in the model.

Several tentative conclusions can be drawn from this model. While occupation may still be socialized, the general desire to serve the public may be diminished. This could potentially lead to a generation decrease in the PSM of bureaucrats. Partisanship may also have socializing effects: those that identify with a party may then be more apt to engage in political behaviors, which could then increase PSM.

That said, these findings are largely in keeping with the literature. While demographic variables had no effect, parental PSM or other parental characteristics had consistently positive effects. This largely comports with prior studies of the antecedents of PSM. However, never before had parental PSM or other parental characteristics been directly measured, nor had they been included in a study of individuals prior to entering the workforce. Past studies were based on recall of the subjects of their parents years after graduating, whereas this is based on a simultaneous survey of the parents themselves. This adds a degree of certainty to the robustness of the relationship between parental and child PSM that had been lacking from prior studies. Based on these results, parents do exert an effect on a child's initial level of PSM.

Do the results of this model serve as a prelude to what affects PSM in young adulthood? Is PSM influenced more heavily by parents or by the PSM possessed at childhood? What, if any, role do contemporary traits play?

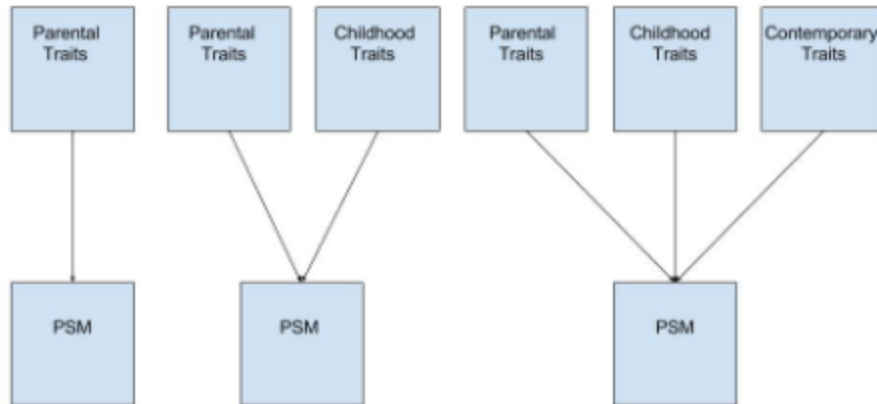
4.4 Antecedents of PSM in Young Adulthood

To model the effects of parental and childhood PSM on adult PSM, a nested regression model will again be used. The dependent variable will be PSM in 1973 for those who were children in 1965. The independent variables used will again come from the earlier model that analyzed childhood PSM. The variables from parents included their education, employment with government, and PSM. From childhood, however, childhood PSM will now be included in the model in lieu of the previously used variables. Since it is a nested regression model, parental traits will be added initially, followed by childhood traits. Finally, contemporary traits will be included.

Contemporary variables include numerous variables already mentioned in addition to several measuring new life events. Demographic variables are included here, such as sex and race. Given the literature on education and PSM (Perry 1997, Vandenabeele 2011), as well as government employment and PSM (Bright 2005, Kjeldsen 2014), graduating from college and government employment are included as dummy variables. Other life events, such as marriage and parenthood, have been added as dummy variables. These last two variables have not been used in prior studies of the antecedents of PSM, but they have been called for inclusion in such studies (Ward 2014) and have had mixed findings in longitudinal studies (Vogel and Kroll 2016). Marriage has been argued to increase obligation to others (Gove 1973; Umberson 1987), which might increase PSM. However, both marriage and children tend to decrease the amount of free

time available to people, especially among women (Bianchi and Mattingly 2003); this could lead to less time for PSM-related behaviors and thus decrease PSM.

Figure 4.2: Nested Regression for PSM in 1973



The results of the nested regression model can be seen in the following table. First, a block using the same parental independent variables as the model that predicted youth PSM is tested. The results can be seen in the first column and are similar to the model for childhood PSM. Parental PSM had a large effect; for every five points of parental PSM, adult PSM in 1973 increased by one point. Parental education was also significant. Parental government employment, however, did not have any effect.

The next block added childhood PSM to the model. It was statistically and substantively impactful. Every two points of childhood PSM increased adult PSM by about one point. Additionally, while parental PSM was still significant, the coefficient was smaller. Finally, the additional chi square added to the model is significant, suggesting that childhood PSM made an important contribution to this model.

How does this compare to a model when contemporary variables are added? Parental education is no longer significant. Men tended to have higher PSM than women by almost five

points. Government employment had a positive effect on PSM of about 4.5 points. Graduating college also had a positive effect on PSM on par with working for the government. Having children tended to diminish PSM by 2.5 points. Partisanship had a positive effect of over five points, while possessing fundamentalist beliefs had a negative effect of about 2.5 points.

Additionally, the chi square is again statistically significant, lending more support to the idea that contemporary characteristics do matter.

Table 4.4: Nested Regression for PSM in 1973

Variable	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Parent - PSM	0.2177925	0.0328286	0.1366012	0.0293776	0.0938808	0.0293704
Parent - HS	3.884869	1.246708	2.456931	1.095257	1.18051	1.056628
Parent - College	3.353854	0.9758131	1.690296	0.929816	0.189736	0.9765704
Parent - Bureau.	-1.839654	1.50283	-0.8133462	1.35671	-0.9146853	1.271801
Child - PSM			0.4580066	0.033963	0.3979698	0.0332765
Child - Male					4.649646	0.9387976
Child - White					2.703719	1.643839
Adult - Bureaucrat					4.430428	1.567397
Adult - Income					0.1012461	0.1380082
Adult - College					4.586992	1.290589
Adult - Married					0.8655831	1.212049
Adult - Parent					-2.460781	1.170613
Adult - Partisan					5.585673	1.331807
Adult - Word God					-2.245378	1.128894
Adult - Chur. Att.					1.176726	1.271163
Constant	32.40444	1.445419	9.598142	2.016709	4.28719	3.114907
CHI SQUARE	25.72		207.57		217.18	
R SQUARED	0.1211		0.2973		0.3839	
DELTA CHI SQ			181.85		9.61	

*Note: Variables in **bold** are significant at the 0.05 level

The following charts show the predicted values of PSM in 1973 by either parental or childhood PSM from the full model. A comparison of the charts shows that there is a much tighter relationship between childhood PSM and adult PSM than for parental PSM and adult PSM. Moving across the full range of values for parental PSM increases contemporary PSM by about 10 points. Meanwhile, increasing childhood PSM by the same amount increases PSM by almost 40 points. This shows that childhood PSM had about four times the effect on contemporary PSM as did adult PSM.

Figure 4.3: Scatterplot of Predicted Values of Adult PSM by Parental PSM

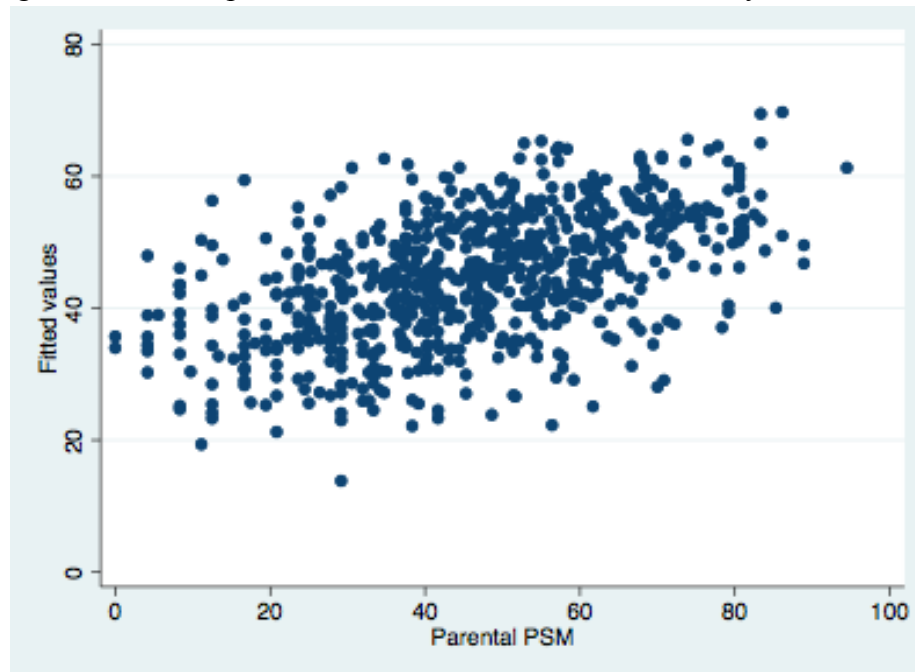
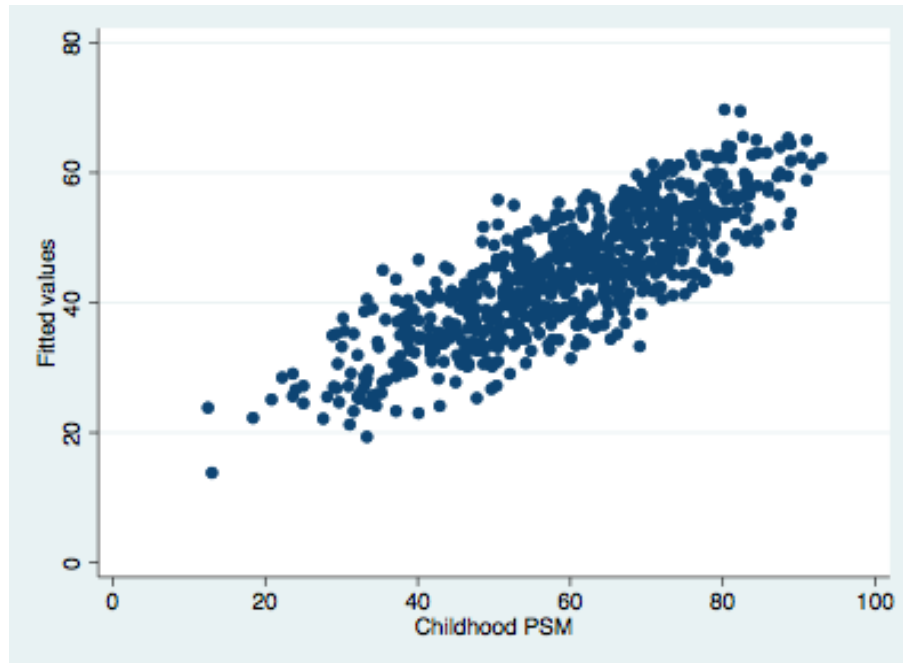


Figure 4.4: Scatterplot of Predicted Values of Adult PSM by Childhood PSM



4.5 Discussion and Conclusion

The chapter examined the antecedents of PSM. Given the various positive attitudes and behaviors that are believed to be a direct consequence of PSM, it is important to increase the understanding of its causes.

Specifically, what was examined was the effect of parental PSM on childhood PSM and the effect of both parental and childhood PSM on future PSM. While few had examined the causes of PSM, none had the requisite data to examine the effects of either parental PSM or childhood PSM on levels of PSM in adulthood.

The first model examined the causes of childhood PSM. While some of the attitudes and behaviors of the children themselves modestly impacted PSM, it was the PSM and traits of their parents that had an overwhelming effect. Given that these findings are largely in line with the

prior research in this area that did not have direct measures of parental PSM or their traits, this is more evidence that there is a positive relationship between parents and the PSM of their children.

The second model examined the antecedents of PSM in young adulthood. It was seen that both parental PSM and childhood PSM impacted PSM later in life. This was the first time that both both of these attributes were included in models to predict later PSM. The magnitude of these variables suggested that they were quite important to understand what can shape PSM.

The importance of these findings cannot be understated. While long assumed, this is the first study to conclusively show that parental PSM impacts childhood PSM and that both parental and childhood PSM shape future PSM. This information helps to clarify questions about how PSM develops.

Additionally, parental and childhood PSM are not only statistically significant, they have an overwhelming substantive effect on later PSM. Imagine two individuals who only differed on childhood and parental PSM. Individual A had the maximum values of childhood and parental PSM, while individual B has the minimum values for both. Individual A's PSM as an adult would likely be 50 points higher than individual B's on a 100-point scale. While other variables may impact PSM, such as earning a degree or having children, nothing comes close to the potential magnitude of childhood and parental PSM.

This suggests that a key time period for cultivating PSM is in childhood, but that cultivation is left primarily to socialization. While other variables affected PSM, nothing approached the magnitude of parental or childhood PSM. PSM does appear to be effectively transmitted from adults to children. Whether that transfer is through observing specific

behaviors, possessing similar attitudes, or via another mechanism is still unknown, but parental socialization does drive the development of PSM.

However, is this the whole story regarding what shapes of PSM? Is it largely immutable following childhood, or is it affected by other events? If so, which events? Furthermore, do parental and childhood PSM continue to impact PSM later in life? These are the questions that will now be examined.

5 Longitudinal Changes in Public Service Motivation

5.1 Introduction

This chapter examines the second and third questions motivating this dissertation: is PSM static or dynamic; and what is the direction of causality between government employment and PSM? To do so, the Jennings-Niemi data set will again be used. However, in addition to data gathered from parents in 1965 and children in 1965 and 1973, the surveys of the children from 1982 and 1997 will be used to model longitudinal changes in PSM.

Various models will be used to examine these interrelated questions. First, t-tests will be used as an initial examination to see if government employment is higher for those with high PSM than low PSM. Then, it will be seen if higher PSM leads to government employment. To analyze this, nested logit models and mediation tests will be used. A Heckman selection model is also employed as a robustness check. Finally, panel models will be used to simultaneously examine the dynamics of PSM and to examine if government employment increases PSM.

It is worth reiterating the uniqueness of these models and this data to the questions under examination. Past data sets that have been used to examine the effect of PSM on government employment have never included a measure of PSM that was obtained prior to graduating college or entering the workforce, where it could have been changed by education or the environment; this study uses a measure of PSM obtained while in high school, which is argued to be the best time to gather data to study the effects of socialization (Galston 2001). Similarly, panel studies of PSM have yet to include a measure of childhood PSM; therefore, its effects on PSM over a lifetime remains unknown. Furthermore, no panel study has been able to measure

PSM over such a long time horizon; this study is about twice as long as any previous analysis, which allows for a more in-depth examination into any potential ebbs and flows of PSM.

The chapter will begin with a description of the data used in the subsequent analyses. The chapter will conclude with both the statistical models and a discussion of the results.

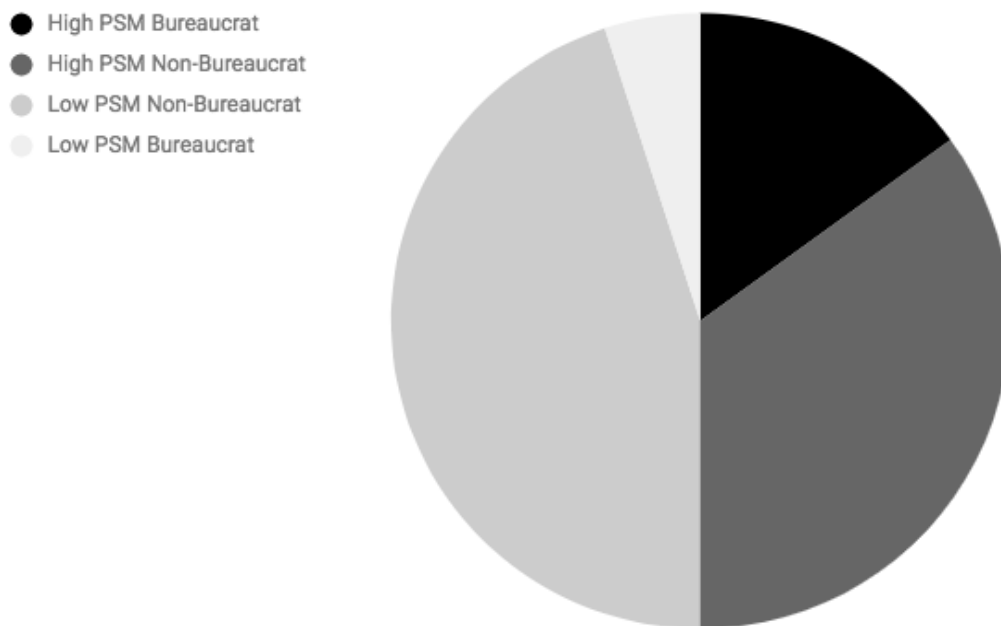
5.2 Are Those With High PSM More Likely To Be Bureaucrats?

What is the relationship between government employment and PSM? Along these lines, do parental, childhood, or contemporary characteristics impact working for government? Earlier studies have argued that higher PSM leads to government employment. For example, in the article which first formalized the term “public service motivation,” Perry and Wise (1990) argued that those with higher PSM would be more inclined to seek out employment in the public sector. Several studies have found that those higher in PSM are more likely to express a preference for government employment (Lewis and Frank 2002; Stejin 2008; Ritz and Waldner 2011; Liu et al. 2011; Clerkin and Cogburn 2012). However, studies that look beyond a preference for government employment and analyze actual job selection have found that either there is no relationship (Kjeldsen and Jacobsen 2013; Kjeldsen 2014), that they do work for government (Breitsohl and Ruhle 2016), or that they will eventually work for government (Wright and Christensen 2010). Furthermore, only one of these studies analyzed a sample from the United States (Wright and Christensen 2010); given that questions remain concerning the definition of PSM in different countries (Kim and Kim 2013), the results of the other studies should be met with some degree of pause. Additionally, no previous studies have been able to see if parental or childhood PSM had an impact on career choice; this study allows for such an analysis.

First, it will be examined if government employment is higher for those with high PSM than for those with low PSM. In other words, do bureaucrats make up a larger percentage of those with higher PSM than they do of those with lower PSM? To examine the relationship between PSM and government employment, the index measure of PSM was split at the median to separate people into categories of either “low PSM” or “high PSM.” Then, the percentage of those with low PSM who are bureaucrats can be compared to the percentage of those with high PSM who are bureaucrats via a t-test to see if there is a significant difference.

The following figure presents a hypothetical demonstration of the analysis. Imagine a group of 100 people that contained 20 bureaucrats. The group was then split in half at the median score of PSM; 50 people to the high PSM group, 50 people to the low PSM group. Of those in the high PSM group, 15 were bureaucrats. Of those in the low PSM group, only 5 were bureaucrats. A t-test would then demonstrate that bureaucrats were more likely to be in the high PSM group than in the low PSM group.

Figure 5.1: Example of Potential Distribution of Bureaucrats with High or Low PSM



The first table shows the results of a t-test of the parental generation to see if there were more bureaucrats in the high PSM group than in the low PSM group.

Table 5.1: T-test for High and Low PSM among Bureaucrats (Parents)

		% of category composed of government employees		
Source of PSM		High PSM	Low PSM	Sig
	Parent	29.28	16.92	0.0001

Of all of the parents with low PSM, almost 17% were bureaucrats. In contrast, of all of the parents with high PSM, almost 30% were bureaucrats. This evidence strongly suggests that bureaucrats are more likely to be in this high PSM group than in the low PSM group. high in PSM as opposed to low in PSM.

However, does this relationship change when considering the subsequent generation? Given that there is occupation data from 1973 for children, it can be examined if government employment is higher for those with higher PSM in 1973 than for those with lower PSM. Furthermore, the inclusion of measures of both parental PSM and childhood PSM from 1965 allows for additional tests to be conducted to see if there is any relationship between these prior measures of PSM and government employment. The three index measures of PSM were again split at the median into two groups. Then, the percentage of bureaucrats in each category was compared via a t-test to see if there were significantly more bureaucrats in the high PSM group than in the low PSM group.

The results in the following table show a consistent relationship: more bureaucrats are found in the high PSM group than in the low PSM group, regardless of whether PSM from parents, childhood, or adult are considered. For example, among those whose parents had high PSM, almost 16% were bureaucrats; however, among those whose parents had low PSM, less

than 13% were bureaucrats. The differences become more stark when considering levels of contemporary PSM: among those with high PSM in 1973, almost 14% were public servants; however, among those with low PSM, less than 6% were bureaucrats. This suggests that government employment is not only higher for those with high PSM than for those with low PSM, but that it is higher for those with high PSM as children and for those that had parents that were high in PSM.

Table 5.2: T-test for High and Low PSM among Bureaucrats in 1973

		% of category composed of government employees		
		High PSM	Low PSM	Sig
Source of PSM	Parent	15.74	12.58	0.08
	Child	14.81	10.6	0.01
	1973	13.57	5.57	0.01

This same test can be replicated using the data from 1982. For this, the index measure of PSM from 1982 was split at the median. Additionally, parental PSM, childhood PSM, and PSM from 1973 were also included. The results here support those from the earlier tests. Using a t-test, not only were childhood, and earlier PSM significant, but it was also seen that of those that were high in PSM in 1982, over 19% were bureaucrats, while of those that were low in PSM, less than 12% worked for the government.

Table 5.3: T-test for High and Low PSM among Bureaucrats in 1982

		% of category composed of government employees		
		High PSM	Low PSM	Sig
Source of PSM	Parent	17.36	13.68	0.1487
	Child	19.68	11.54	0.0001
	1973	18.57	11.21	0.0009
	1982	19.14	11.66	0.0008

Does this change when the sample is revisited in 1997? For this, PSM in 1997 is split at the median. The prior measures of PSM are also included to see if they are still correlated with employment at this later date. Consistent with the findings from earlier comparisons, a larger percentage of those that are high in PSM are bureaucrats than those that are low in PSM, regardless of when PSM was measured, and regardless of whether it was measured from the respondents or from the respondents' parents.

Table 5.4: T-test for High and Low PSM among Bureaucrats in 1997

		% of category composed of government employees		
T-Tests		High PSM	Low PSM	Sig
Source of PSM	Parent	25.51	18.6	0.0155
	Child	26.3	20.24	0.0158
	1973	26.88	17.49	0.0011
	1982	25.12	18.43	0.0122
	1997	28.57	18.71	0.0002

What is the takeaway from this initial look at the data? Over many years of data, this evidence strongly suggests that those with higher PSM are more likely to be bureaucrats than those with lower PSM. Furthermore, those that had parents that were higher in PSM or who had higher PSM themselves in their childhood were more likely to be bureaucrats at 8 years, 17 years, and even 32 years into the future. This suggests some sort of relationship between high PSM and government employment. That said, there is not enough information to determine the causal direction of this relationship. Though this information does suggest that those with higher PSM in youth are more likely to be public servants, this type of analysis can not definitively rule out other hypotheses; for example, whether or not working for government leads to increases in

PSM remains unknown. However, given that these differences do exist, these results suggest that analyzing the direction of causality is a worthwhile endeavor.

5.3 Does High PSM Lead To Government Employment?

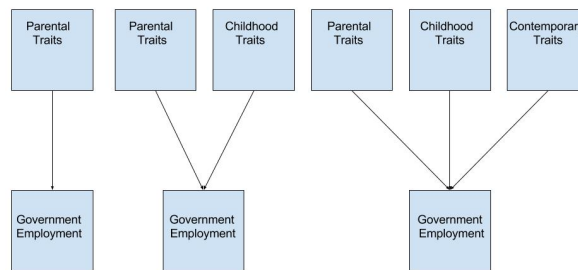
Is there a statistical and substantive link between PSM and government employment? Furthermore, if there is, what role is played by parental traits, childhood traits, and contemporary traits? To test the fourth hypothesis, which states that those higher in PSM will be more likely to work for the government, the dependent variable will be government employment in 1973 for the youth generation. This measure is used because it is the first time that employment for this generation was measured. Given the dichotomous nature of the dependent variable and the structure of the independent variables, a nested logit model will be used. The “blocks” of independent variables will be entered according to their proximity to the dependent variable, with the “oldest” variables to be initially entered. The first block of independent variables will only include parental characteristics. The next block will add youth characteristics to predict government employment. Finally, the last block will add contemporary characteristics.

Though limited, there has been some recent work analyzing what types of people work for the government. Lewis and Frank (2002), using data from the General Social Survey, looked primarily at demographic correlates for government employment. They found that those who worked for government were more likely to be college graduates. They were also more likely to be female and to be a minority. Having a parent who also was a bureaucrat mattered, as did previously serving in the military. Identifying with the Democratic Party also increased the likelihood of wanting a government job. Therefore, these variables will be included in the model for selection.

Variables capturing work-life balance will also be included. Studies have found that government employees tend to be less extrinsically motivated by factors such as income or job prestige (Crewson 1997; Houston 2000). However, Bulens and Van den Broeck (2007) argue that the impetus for this is a greater emphasis on work-life balance, as government employees are more likely to be highly satisfied with their family life. While measures directly addressing work-life balance are not available, variables measuring marital and parental status will be included in the model and dummy coded.

There is also literature suggesting that more religiously-minded people may want to work for government. For example, Freeman and Houston (2010) found that those that work for the public sector are more likely than the rest of the public to say that they attend church, participate in church organizations, and say that they have been born-again. Therefore, variables measuring church attendance and belief in the Bible will be included.

Figure 5.2: Nested Logit for Government Employment in 1973



The following table has the results for this nested logit model. When looking at the first block, with independent variables culled from parents, only government employment exerted a positive statistical effect. With respect to predicted probabilities, having a parent who was a government employee increases the likelihood of being a government employee from 12.9% to

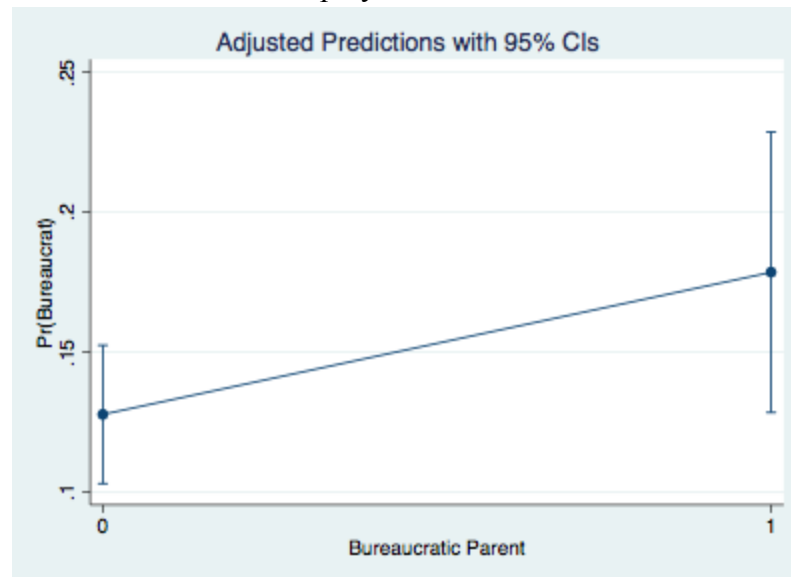
18%, or by almost 40%. This may be because following the vocation of a parent is rather likely; according to data gathered by the Census bureau, over one in five men and one in ten women will have worked for the same employer, at the same time, as their parents by their 30th birthday.

Table 5.5: Nested Logit for Government Employment in 1973

Variables	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Parent - Bureaucrat	0.3787	0.2080	0.4200889	0.2134516	0.4337	0.2209
Parent - PSM	0.0086	0.0055	0.0034673	0.0058061	-0.0024	0.006
Child - Man			0.6311867	0.2007511	-0.0539	0.2826
Child - White			0.213708	0.4034446	0.0493	0.4237
Child - Democrat			0.738231	0.3646697	0.657	0.3857
Child - Republican			0.4437817	0.3554687	0.4113	0.3724
Child - PSM			0.0136557	0.0074245	0.0082	0.007
Child - Word of God			-0.0473377	0.2090532	0.0165	0.2188
Child - Church Att.			0.0518398	0.2101077	0.0552	0.2199
Adult - College					0.8990	0.233
Adult - Parent					-0.4098	0.2444
Adult - Married					0.087	0.2336
Adult - Veteran					1.098	0.2860
Constant	-2.27321 2	0.2881	-3.946555	0.7616714	-3.508	0.8013
CHI SQUARE	5.88		19.5		30.86	
R SQUARED	0.0091		0.037		0.0881	
DELTA CHI SQ			13.62		11.36	

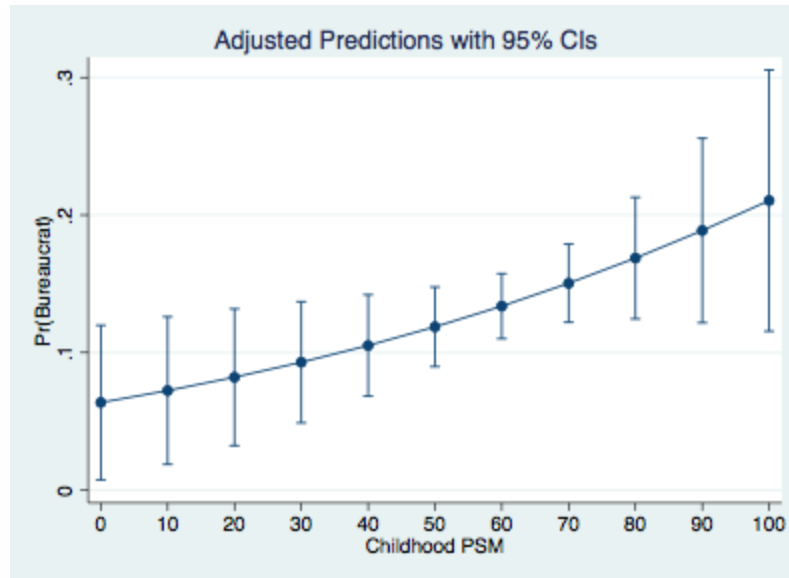
*Note: Variables in **bold** are significant at the 0.05 level

Figure 5.3: Predicted Probability for Parental Government Employment on Government Employment



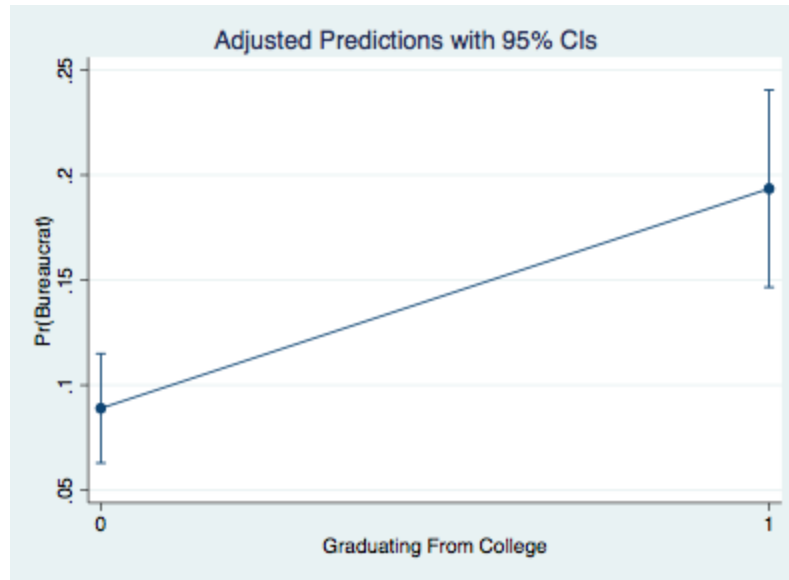
How does this compare to a model that now includes childhood characteristics? As can be seen in the second column, parental government employment is still significant. The only additional variables that are significant are sex, belonging to the Democratic Party, and childhood PSM. Men are about 70% more likely than women to be bureaucrats; moving from women to men increases the likelihood of being a government employee from 10.8% to 18.3%. This is unsurprising; as will be seen in a later chapter, women only made up 44% of bureaucrats at this time. Identifying with the Democratic Party had an even larger effect on the probability of working for government. However, what is most relevant is the finding that childhood PSM impacted employment. Moving from the minimum of PSM to the maximum of PSM increases the likelihood of government employment by over 300%, or from 6.3% to 21.1%. All of these variables provide a strong argument that childhood traits have a demonstrable impact on future employment. Finally, the increase in the chi square of the model is statistically significant, providing further support that childhood variables impact government employment.

Figure 5.4: Predicted Probability for Childhood PSM on Government Employment



Using the same dependent variable, but now adding contemporary information about the respondents, does result in a few changes. Sex is no longer significant, nor is childhood PSM. Possessing a college degree did increase the odds of government employment. College graduates are more than twice as likely as those who had not graduated from college to become a bureaucrat; the predicted probability of becoming a bureaucrat moves from 8.9% to 19.3% for those with a degree. Having children also appeared to decrease the likelihood of becoming a bureaucrat. This may speak to the increased financial strain that is encountered when a family grows in size; those with children may wish to find more lucrative employment in the private sector. Veterans were also more likely to become bureaucrats. These results, coupled with the statistically significant increase in the chi square of the model, suggest that contemporary characteristics also impact government employment.

Figure 5.5: Predicted Probability for Graduating from College on Government Employment



The results of the fully specified nested logit model suggest that childhood PSM does not have an effect on government employment, which is not what was hypothesized. However, it is possible that childhood PSM does exert some effect through the contemporary variables that are added in the final block. That is, childhood PSM could influence the likelihood of some other life event, such as getting married or having children, and then that life event impacts the likelihood of becoming a bureaucrat. This is known as “mediation.”

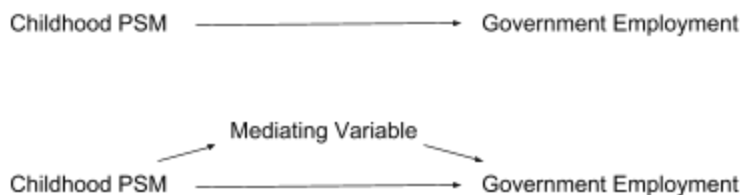
Mediation should be considered given the results of the nested model and based on past findings relating to the antecedents of PSM and the associated methodological shortcomings of those studies. Recall that the nested logit model showed that childhood PSM was significant until the contemporary characteristics were added. When an independent variable has a significant effect on the dependent variable, but is no longer significant when subsequent independent variables are added, mediation may be occurring and should be examined (Sobel 1982, 1986).

Furthermore, it may be reasonable to assume that some of the contemporary variables that were added in the final stage may be affected by PSM. For example, earlier studies of the

antecedents of PSM have found that those that are higher in education have higher levels of PSM (Perry 1997, Houston 2000, Bright 2005). However, those studies relied on cross-sectional data; therefore, causal claims cannot be made. In addition, the only other study to use mediation to model PSM also used cross-sectional data (Vandenabeele 2009). While it is possible that higher education leads to increases in PSM, the converse has yet to be examined. However, given the longitudinal nature of this data, the impact of PSM on education can be examined for the first time to see if higher PSM leads to increases in education.

Additionally, there are theoretical reasons to assume that PSM could impact the likelihood of some of the contemporary variables, such as graduating from college. PSM is defined as “attitudes and behaviors oriented towards serving others.” Those that are higher in PSM may want to go to college to enhance their skills to assist them in helping others or to learn more about the world around them. Given these considerations, mediation should be examined.

Figure 5.6: Example of Mediation



To see if there were any mediation effects, in keeping with the literature on mediation (Hale et al. 2013, Kogler et al. 2015, Collini et al. 2015), Sobel-Goodman mediation tests were conducted (Sobel 1982, 1986). The first step of this test is identifying the dependent variable, the independent variables, and the moderating variables. In this instance, the dependent variable is government employment, while the potential moderating variables are all of the adult variables: college, marriage, children, and veteran status. All of the adult variables will be considered to be

thorough in this test. The independent variable that is assumed to be mediated is childhood PSM. The test calculates if there is significant mediation by taking the mediation effect and dividing it by its standard error and then presents the proportion of the effect that is mediated; if significant, then that proportion is meaningful and should be interpreted. Since there can be concerns with using the Sobel-Goodman test with respect to the standard error for the indirect effect, the observations and residuals were both bootstrapped (MacKinnon et al. 2004, Preacher and Hayes 2008).

The results of the Sobel-Goodman test are in the following table. It can be seen that childhood PSM is mediated almost entirely through one variable: graduating from college. Obtaining a four-year degree mediates about 70% of the effect of childhood PSM on government employment.. Thus, though childhood PSM is not significant in the model, it does indirectly impact the likelihood of working for government through education.

Table 5.6: Results of Sobel-Goodman Mediation Tests

Variable	Z-Score	Proportion of Effect Mediated
College	5.334	0.689
Children	0.851	0.046
Married	0.406	0.021
Veteran	0.717	0.135

This may help to explain why some studies have not found a link between PSM and government employment. Most of those studies focus on people that are already have a college degree (Kjeldsen and Jacobsen 2013, Kjeldsen 2014). In doing so, what is unobserved and unmeasured is the effect of PSM on graduating from college. This points to one of the strengths of this study, which is the inclusion of childhood PSM.

In addition to mediation tests, it is important to check to see if there is a confounding variable in this model. In order for someone to be a government employee, they must, by default, be employed. It may be that the independent variables in the regression models for government employment do not necessarily impact government employment, but rather are predictors of employment **itself**. That is, perhaps some of these variables are correlated more with finding a job than with finding a government job, but since employment is not modeled, they appear to significantly impact working for government.

Fortunately, there is a statistical remedy for this dilemma in the Heckman probit selection bias model. The Heckman probit selection bias model assumes that, in a given initial regression equation, the dependent variable is not always observed. Instead, the dependent variable is only observed based on the results of a different “selection equation.” By initially modeling the selection equation, a Heckman model can use that information to then provide estimates of the initial equation that are now asymptotically efficient and consistent. In other words, the Heckman model will use information from those that are employed to provide better estimates of the parameters in the model for government employment. This was elegantly explained and detailed in Timpone’s (1998) article on the necessity of including voter registration in models of voter turnout.

In order for a Heckman selection bias model to work, there must be at least one variable that impacts the probability of observation but not the variable of interest. That is, there must be something that has an effect on the odds of being employed that does not have an effect on the likelihood of being employed by the government. Identifying such a variable is usually one of the most difficult facets of running a Heckman selection bias model.

Fortunately, such a variable exists for this question. When the respondents were children, they were asked about what sort of career they envisioned for themselves. The students listed vocations such as “bookkeeper” or “farm manager.” These careers were then sorted into broad categories. One such category was “Professional and Technical,” which gathered together careers like clergyman and dentists. It can be imagined that someone who wants to go into one of these fields will eventually find a job, but these specific vocations do not overlap much with the public sector. Therefore, a dummy variable created for this employment category will be used as the unique linking variable. As a check to ensure the appropriateness of this variable, it was tested in logit models for both employment and government employment. While it was significant in the model for employment, it had no effect in the model for government employment, which provides support for its appropriateness in a Heckman model.

The results of the model can be seen in the following table. Looking first at employment, it is seen that the additional variable of “Professional and Technical” was significant. Parental government employment had a positive effect on the likelihood of having a job in 1973; this supports its inclusion in the selection model. Those that were white were less likely to have a job. While parental PSM has a positive effect, childhood PSM has a negative effect.

Table 5.7: Heckman Selection Model for Government Employment

DV: Bureaucrat	Coef.	Std. Err.	DV: Employed		
			Professional Occup.	0.2358942	0.0960213
Parent - Bureaucrat	0.2365739	0.1336534	Parent - Bureaucrat	0.220119	0.108354
Parent - PSM	0.0045114	0.0037178	Parent - PSM	0.010136	0.0026906
Child - Man	-0.0536457	0.1623058	Child - Man	-0.0969396	0.1140243
Child - White	-0.1748934	0.2270706	Child - White	-0.3023725	0.1663707
Child - Democrat	0.3615147	0.2319164	Child - Democrat	0.1794495	0.1477627
Child - Republican	0.2734956	0.2251188	Child - Republican	0.2690851	0.1390682
Child - PSM	0.0038451	0.0045731	Child - PSM	-0.0092803	0.0033375
Child - Word of God	-0.0785856	0.1310196	Child - Word of God	-0.0831809	0.0953887
Child - Church Att.	0.174265	0.1357033	Child - Church Att.	0.0601865	0.0971978
Adult - College	0.3935313	0.1381672	Adult - College	0.0047803	0.1087562
Adult - Parent	-0.0896529	0.1564462	Adult - Parent	0.0740718	0.1122989
Adult - Married	-0.0580252	0.1449975	Adult - Married	-0.0556218	0.1101657
Adult - Veteran	0.6168732	0.1707414	Adult - Veteran	0.1930283	0.1250372
Constant	-2.278327	0.4435556	Constant	0.3814479	0.3035524
/athrho	1.280882	1.228721			
rho	0.8567197	0.3268783			

*Note: Variables in **bold** are significant at the 0.10 level

Reassuringly, those variables that were seen to impact the probability of being a bureaucrat largely remained the same in this model. Those that were veterans or had graduated from college were more likely to work for government. Additionally, those with parents that were public servants were more likely to become bureaucrats. Democrats were also more likely

to be bureaucrats. However, having children now had no effect on the likelihood of working for the public sector, though the variable almost achieved statistical significance ($p=0.11$). Therefore, the results from the earlier model appear to be supported.

This section has answered the first part of the third question motivating this dissertation in analyzing the effect of PSM on government employment. While it appeared that childhood PSM impacted the likelihood of becoming a bureaucrat, this variable became insignificant with the addition of contemporary variables. That said, mediation tests found that almost all of the effect of childhood PSM on the probability of becoming a public servant was mediated through graduating from college. These results were confirmed after a Heckman selection model that included the likelihood of having a job.

However, the second part of that question (the effect of government employment on PSM) still needs to be examined. In doing so, the second question that is a part of this dissertation will also be explored, which asked whether or not PSM was dynamic. Those points will now be addressed.

5.4 Data and Analysis

Prior to beginning the analysis, the measures of PSM will be described. As is shown in the following chart, the overall level of PSM remained relatively constant over time, increasing slightly between 1982 and 1997. This, coupled with the increase in the standard deviation in 1997, suggests that PSM may change and that it may become more volatile with age.

Table 5.8: Trend in PSM Over Time

Year	Min	Max	Mean	SD
1973	0	95	43.8	15.7
1982	0	91.67	44.99	15.87
1997	2.27	97.73	50.46	17.4

To gain a better understanding of the links between individual measures of PSM over time, the following table shows the correlations between all of them. Given the interest in childhood PSM, that measure is also included.

There are several observations of note in the chart. First, there is a large and consistent correlation between childhood PSM and PSM as it is measured in later years. A variable that was measured in 1965 had almost the same exact effect in 1973 as it did in 1997. This suggests that childhood PSM may be a powerful and constant force in shaping PSM in later years.

Also, the correlations between PSM as measured in later years is even higher. Furthermore, it is just as consistent as childhood PSM. This suggests that PSM is a largely stable variable over time that is heavily influenced by childhood.

Table 5.9: Correlation of PSM Over Time

	Childhood PSM	1973 PSM	1982 PSM
Child PSM	1		
1973 PSM	0.4974	1	
1982 PSM	0.4958	0.6749	1
1997 PSM	0.4794	0.6177	0.6592

Since PSM has been measured from the same people when they were children in 1965, and then again when they were adults in 1973, 1982, and 1997, what is the best use of this data to capture how PSM changes? Since there is information from the same respondents measured across time, it can be treated as panel data. However, just because this is panel data does not mean that it has to be modeled as such. Panel data can be modeled as cross-sectional data, and in some cases, these models can provide consistent estimates of coefficients and of standard errors (Hoxby and Skrovdal 2012, 244). However, by using the modeling techniques unique to panel data, claims of causality can be made. Specifically, since each subject serves as its own

control, there is little risk of omitted variable bias. Therefore, using models unique to panel data allows for a more in-depth exploration of causal claims; in this case, having panel data allows for an examination of how changes within individuals may impact their level of PSM.

Furthermore, given the availability of data, there are more options with the length of the panels that can be used. Earlier panel studies have been hampered by a limited number of observations; many only measured PSM over short periods of time. However, since there are multiple measures available in this study, several panels can be used to capture any changes in the effects of the independent variables and to serve as a check on the robustness of the results. Therefore, two panel models will be used: one will measure PSM from 1973 to 1982, and another from 1982 to 1997.

The first panel will analyze PSM from 1973 to 1982. Before a model can be selected, the hypotheses must inform the selection of the independent variables. One of the most unique and important variables that can be included in this study is childhood PSM. No panel study to date has been able to measure PSM prior to college or employment; thus, it has never been included in a panel study to see if and how it shapes later PSM. Therefore, child PSM will be included as an independent variable and will be coded as a continuous variable.

Based on the fifth hypothesis, which stated that PSM will increase in government employees, government employment will be included as an independent variable. Given the nature of the data, there is variation in employment. Some people were government employees in 1973 but not 1982 or vice versa. This dropping out and jumping into the government workforce allows for a better understanding of the relationship between public sector employment and PSM. Therefore, a series of dummy variables will be included to measure this variation. A

variable that measures if someone was a government employee in 1973 but not 1982 will be included, as will a variable that measures if someone was a government employee in 1982 but not 1973. As detailed in the earlier hypothesis section, it is hypothesized that PSM will go up for someone who joins the bureaucracy; there is no hypothesis on the direction of PSM for someone who leaves the bureaucracy.

Other key independent variables for the model come from the third hypothesis, which states that PSM will increase for those who have children and graduate from college. Vogel and Kroll (2016) found in their study of German civil servants that having a child had a **positive** effect on PSM, while Vandenabeele (2011) found that having a college degree is associated with higher PSM. Therefore, having children and graduating from college will be included as dummy variables.

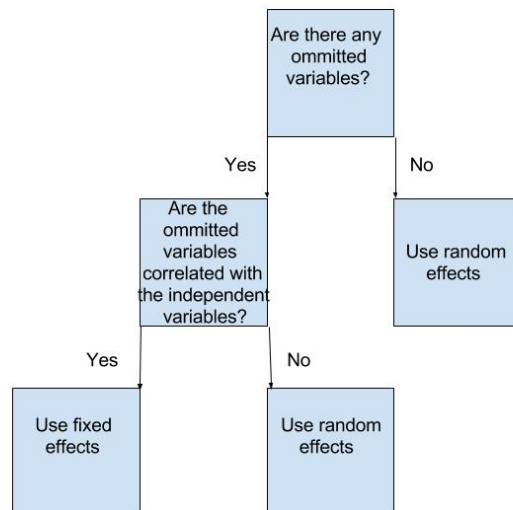
Additional independent variables come from both the literature on PSM and from the models results in this dissertation. When looking to the literature for control variables, it is important to note that many prior longitudinal studies have been hampered in the number of variables they could include as independent variables. Therefore, this analysis will borrow from studies of the antecedents of PSM in addition to the results from the earlier models in the study of the antecedents of PSM. The control variables selected for analysis include race, sex, income, marital status, belief about the Bible, church attendance, and partisanship. Income is a continuous variables; the rest are dummy coded.

Two types of models are traditionally used with panel data: fixed effects or random effects models. Correct model specification is vital. A properly specified random effects model

will be more efficient than a fixed effects model, while an improperly specified random effects model is not consistent (Rabe-Hesketh and Skrondal 2012, 267).

To determine which model to use, the potential independent variables must be analyzed. First, it must be determined if there are any omitted variables; having determined that, the effect of those omitted variables must then be considered. If there is no reason to suspect that there are variables that are omitted or that the omitted variables are not correlated with the independent variables in the model, then a random effects model should be used. However, if there are omitted variables, or if these omitted variables are correlated with the independent variables, then fixed effects should be used. Fixed effects models have the subjects serve as their own controls in the hopes that the omitted variables have the same effect on the dependent variable across time; thus, their effects are “fixed.”

Figure 5.7: Should Fixed Effects or Random Effects Be Used?



Thus, in a fixed effects model, only the variables that do not have time-invariant values with time-invariant effects are included as independent variables. In other words, the variables that are omitted are those that, over time, do not change in value and have consistent effects. For example, if the effect of race was the same at every point in time, then this would be a variable with a time-invariant value (race does not change across time) with a time-invariant effect (the impact of race was the same at every point in time). Therefore, a fixed effect model shows the causes of change within a subject. In a random effects model, variables that have time-invariant values and effects are included.

In this potential model, there are three variables that have time-invariant values; given this, it is important to determine if they also have time-invariant effects. These variables are race, sex, and child PSM. Given the importance of child PSM to this model, determining if it has a constant effect over time is crucial, not only to model specification, but for theoretical reasons as well. If childhood PSM has a constant effect, then this suggests that the level of PSM established in youth has the same impact at all points in the future. This would mean that childhood PSM does not diminish, but instead serves as a foundation that is unmoving when buffeted by life events. On the other hand, if it does not have a constant effect, then perhaps this would suggest that PSM from childhood could either increase or decrease and that current PSM is more malleable to interventions.

To test whether a fixed or random effects model is a better fit for the data, a Hausman test should be conducted (Green 2008). First, both a fixed and random effects model should be run with all of the potential independent variables. The Hausman test then sees if the unique errors are correlated with the regressors. If there are significant differences in the coefficients, then a

fixed effects model should be used; if not, then random effects are appropriate (Green 2008). In this case, the Hausman test showed that there was a significant difference in the coefficients; therefore, the fixed effects model was the preferred model. This suggests that the variables with time-invariant values did indeed have time-invariant effects and should be excluded from the model.

Table 5.10: Results of the Hausman Test, 1973-1982

	Fixed Coefficients	Random Coefficients	Difference
Income	0.0222657	0.09854	-0.0762743
College	1.428582	6.97327	-5.544687
Married	-1.287874	-0.1175264	-1.170348
Kids	0.3441651	-0.1042493	0.4484144
Word of God	0.8573689	-1.898419	2.755788
Church Att.	-0.1896204	0.8745614	-1.064182
Partisan	1.604302	2.865335	-1.261034
Bureaucrat only in 1982	3.908607	3.833111	0.0754952
Bureaucrat only in 1973	-0.3972267	1.331396	-1.728622
chi2(9)=37.27			
Prob>ch2=0.0000			

This finding in and of itself is very interesting. Recall that the time-invariant variables were sex, race, and childhood PSM. Given the results of the Hausman tests, that means that sex and race exerted a constant effect on PSM. Furthermore, childhood PSM also exerted a constant effect on PSM. In other words, the effect of childhood PSM did not increase over time, but neither did it decrease.

This finding with respect to childhood PSM speaks to the durability of PSM. While other variables may shape PSM in adulthood, these results suggest that PSM in childhood had an almost immutable effect throughout the early years of someone's adult life. Childhood PSM had the same effect on an adult in 1973 as it did in 1982.

This finding also serves as a reminder of the durability of socialization on children. Childhood PSM was largely impacted by parental variables, such as education, political interest, and PSM. This finding pertaining to the strength of childhood PSM shows that parents still exert an indirect effect on their children throughout the rest of their lives. By being raised in a particular environment, PSM can be firmly rooted in people.

Turning to the results of the fixed effects model, the only variables that had a statistical effect were government employment and partisanship. To interpret the model, recall that all of the independent variables are those that did not have time-invariant values; that is, they may have changed over time. Therefore, what is captured is the effect of a change in that independent variable on PSM. Therefore, those that were not government employees in 1973 but did work for the government in 1982 saw an increase in PSM, as did those that did not identify with a political party in 1973 but did in 1982. In contrast to other panel studies of PSM, no other variable had a demonstrable effect on the dependent variable.

Table 5.11: Fixed Panel Regression for Change in PSM, 1973-1982

Variables	Coef.	Std. Err.
Income	0.0222657	0.0790983
College	1.428582	1.876833
Married	-1.287874	1.025382
Kids	0.3441651	0.9662376
Word of God	0.8573689	1.155953
Church Att.	-0.1896204	1.161132
Partisan	1.604302	0.8245867
Bureaucrat (1982)	3.908607	1.505854
Bureaucrat (1973)	-0.3972267	2.207155
Constant	42.95567	1.523896
sigma_u	14.764461	
sigma_e	8.9831759	
rho	0.72982583	

*Note: Variables in **bold** are significant at the 0.10 level

These results are important. For one, it suggests that becoming a government employee has a positive effect on PSM. This helps to unpack the discussion of causality between government employment and PSM. Scholars have argued that an overreliance on cross-sectional studies had made it difficult to determine if government employees had higher PSM than the rest of the population due to selection or socialization. The results from this model suggest that socialization does matter.

Additionally, these results show that PSM is not immutable over time. Aside from becoming a bureaucrat, identifying with a political party also changed PSM. What is also noteworthy is that both of the significant variables had a positive effect on PSM.

Is this always true of PSM? Do changes in government employment or partisanship always impact it? Is the effect of childhood PSM always constant? To check this, the next model will use panel data to analyze PSM from a later time period: 1982 to 1997. The same independent variables will again be used. However, since they now model the time period from 1982 to 1997, the government employment variables that will be included measure if someone was a bureaucrat in 1982 but not 1997 or if they were not a bureaucrat in 1982 but were in 1997.

First, a Hausman test must be conducted to see if fixed or random effects models should be used. Those variables that will be tested include childhood PSM, race, sex, and children. The latter variable was included because no one in the sample had additional children between 1982 and 1997, so this variable did not change in value. Hausman tests again confirmed that a fixed effects model best fit the data.

Table 5.12: Results of the Hausman Test, 1982-1997

	Fixed Coefficients	Random Coefficients	Difference
Income	0.3192658	0.3426713	-0.0234055
College	2.253394	6.327074	-4.07368
Married	2.936767	1.171197	1.76557
Word of God	1.072298	-1.682983	2.75528
Church Att.	2.293816	2.533961	-0.2401452
Partisan	1.382713	2.843533	-1.46082
Bureaucrat only in 1997	5.372088	4.460983	0.9111045
Bureaucrat only in 1982	-3.916546	-0.825479	-3.091067
chi2(8)=22.92			
Prob>chi2=0.0035			

Again, this result speaks to the power of childhood PSM. While the earlier panel model showed that childhood PSM had a constant effect on PSM while someone was a young adult, this panel includes data that was gathered over thirty years after the initial data was collected. The results of the Hausman test suggest that the effect of childhood PSM does not increase over time, but neither does it decrease. Not only is the effect of childhood PSM constant, but it is constant over a span of thirty years.

In turning to the model results, it is seen that different life events now have an effect on PSM. Increases in income have a positive effect on PSM. Getting married or deciding to attend church during this time also increased PSM by three or two points, respectively. However, identifying with a political party, which impacted PSM in the earlier panel, had no effect.

Table 5.13: Fixed Panel Regression for Change in PSM, 1982-1997

	Coef.	Std. Err.
Income	0.3192658	0.0689819
College	2.253394	1.783619
Married	2.936767	1.386118
Word of God	1.072298	1.293999
Church Att.	2.293816	1.295248
Partisan	1.382713	1.0217
Bureaucrat (97)	5.372088	1.798358
Bureaucrat (82)	-3.916546	2.690286
Constant	39.25328	1.742793
sigma_u	15.025383	
sigma_e	9.5325086	
rho	0.7130136	

Furthermore, government employment continued to have a positive effect on PSM. Those that were not bureaucrats in 1982 but were in 1997 saw about a five point increase in PSM. Those that left the bureaucracy saw no changes to PSM.

5.5 Discussion and Conclusion

This chapter set to answer the following questions: is PSM static or dynamic, and does government employment affect PSM? Using unique datasets, both of these questions were examined with a depth and complexity that had been lacking from earlier studies. Nested logit models found that childhood PSM does not directly affect the likelihood of becoming a government employee; rather, its effect is almost completely mediated by graduating from college. Panel models provide support for the notion that PSM is dynamic and that it is also affected by working for government; those that joined the bureaucracy saw increases in their PSM. Life events, such as marriage and church attendance, also had a demonstrable effect on PSM.

The mediated effect of childhood PSM on government employment via graduating from college was an intriguing finding that better contextualizes the mixed results of prior studies. Since PSM appears to indirectly impact becoming a public servant, it is now more understandable why studies that had instead studied the direct relationship between PSM and government employment came to inconsistent conclusions.

Furthermore, this finding shows how important it is to gather data regarding PSM from people prior to them entering the workforce and prior to entering college. Given the overwhelming effect of PSM on graduating from college, relying on measures of PSM obtained

after that point may be biased. Additionally, only studying those who graduated from college paints an incomplete picture of the effect of PSM.

Also of note was the impact of childhood PSM on later PSM. No other studies to date had been able to include this measure, so it was novel to see how it interacted with future PSM. The Hausman tests showed that the effect of childhood PSM neither increased nor decreased over time; rather, it remained constant. This study thus showed the permanence of childhood PSM; while future events may have an effect on PSM, childhood PSM would always be felt.

There were also unexpected results that complicate the picture of dynamic PSM, as the results of these two panels suggest that PSM may be impacted differently by events at different times. While identifying with a political party in your late 20s or early 30s increased PSM, later identification did not. Similarly, increases in income, getting marriage, or starting to attend church had no effect on PSM prior to someone entering their late 30s, but it did after that point. This does suggest that there are life cycle effects to PSM. From these models, it may be inferred that political activities are more likely to shape PSM when someone is a young adult, while more personal life changes are likely to impact PSM as someone ages.

This is a substantial and noteworthy finding. No other longitudinal study of PSM has detected effects that change with time. Not only is PSM dynamic, but the variables that affect it change with time. This uncovers a hitherto unexamined and untheorized component of PSM.

It has now been seen that PSM can change over time. Furthermore, bureaucrats tend to have higher PSM. However, that is a broad claim. Which types of bureaucrats may be higher in PSM? That question is analyzed in the following chapter.

6 PSM and Federalism

6.1 Introduction

This section examines the fourth question of this dissertation: are there differences in PSM for different levels of government employees? To do so, data from the 2006 CCES will be used. Regression models using full information maximum likelihood will be used to model the data.

This question is unique in the PSM literature, and its implications are manifold. Most examinations of PSM among bureaucrats either assume that PSM is the same for all government employees or assume that a specific subset of bureaucrats is representative of the whole. If any such variation in PSM does exist, assuming either of the aforementioned trends may inadvertently lead to bias in studies. Additionally, given the differences in the type of work performed at different levels of government, such differences may be expected.

First, there will be an overview of how the government workforce has changed over time. Each subsection will focus on one level of government: federal, state, or local. The number of jobs over time at each level will be examined, followed by a look at the changes in the demographics of the workers. There will also be a brief description of the current jobs of each level of government. Data for this section comes from the Census Bureau and the Integrated Public Use Microdata Series (IPUMS), which is composed of microdata samples from the US Census. This specific IPUMS data includes information from the Current Population Survey. This allows the data to be weighted according to the makeup of the population, which allows for precise estimates of the questions under consideration. This survey began teasing out employment

by different levels of government in 1976, so all examinations using that data take place from that point.

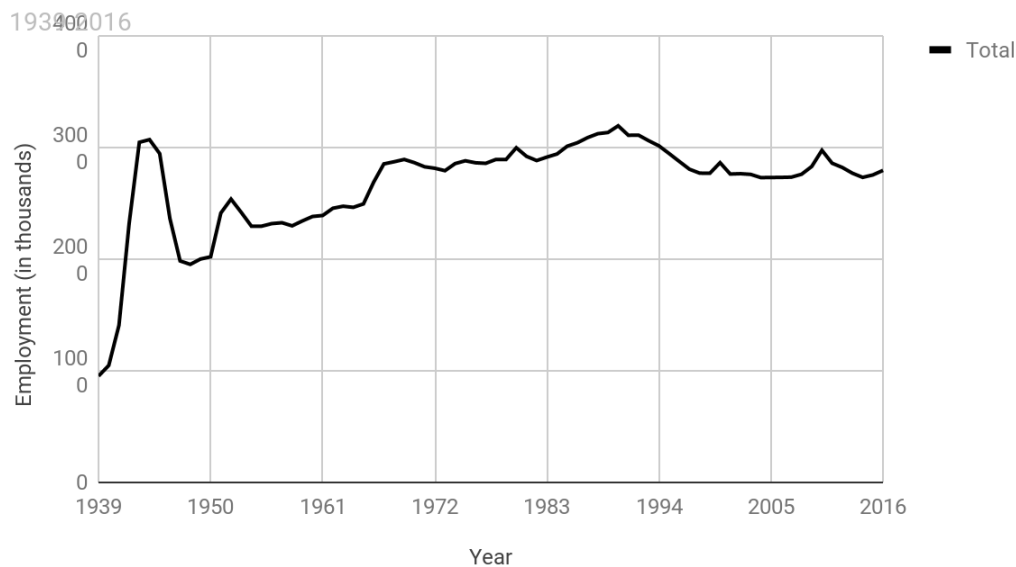
Second, the information about the nature of the government workforce will inform the hypothesis concerning PSM and federalism. This hypothesis will then be tested using the CCES data. The results of the model will then follow, with a discussion of their implications to conclude.

6.2 Federal Bureaucrats - By the Numbers

The following figure shows how the total number of federal employees has changed since 1939. The early fluctuations in federal employment coincide with major foreign wars. It is important to note that these are civilian employees; not members of the armed forces. The workforce grew dramatically due to World War II; in 1939, there were less than one million federal employees, but this number stood at over three million by 1944. Following the end of the war, the workforce dropped to around two million by 1948. However, by 1952, this number had increased to around 2.5 million, most likely due to the Korean War. Following the end of this conflict, the number of federal bureaucrats dropped to about 2.3 million by 1954.

Figure 6.1: Number of Federal Employees, 1939-2016

Federal Government Employment



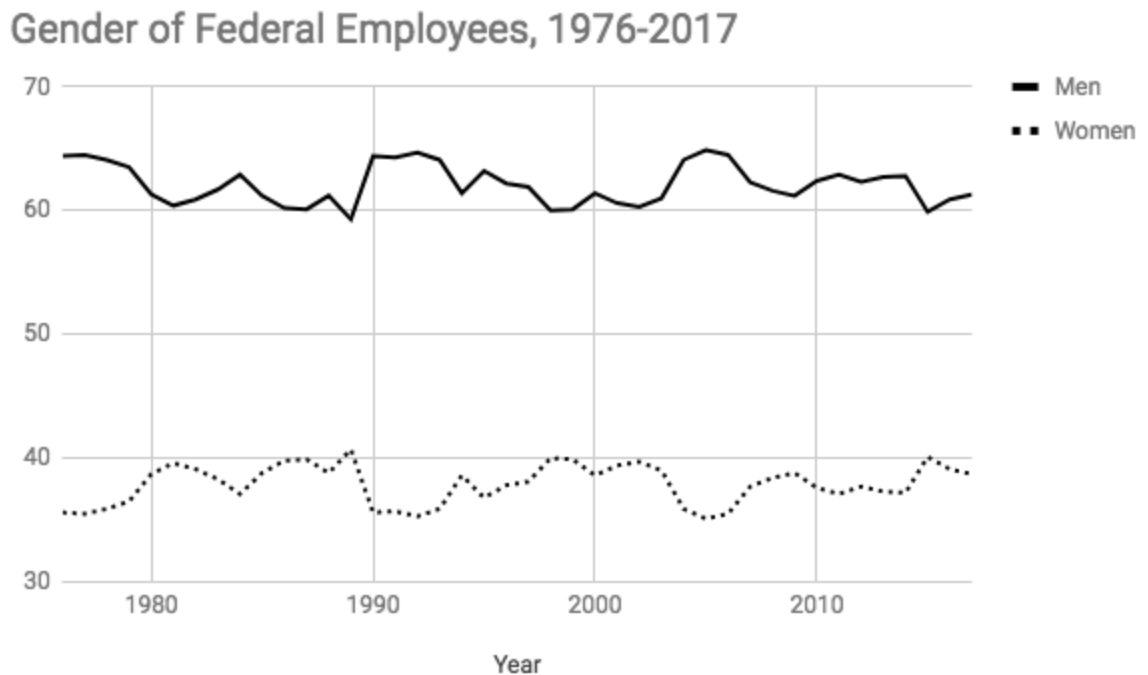
The next great shift in employment coincided with a flurry of progressive legislation. While it grew slowly until President Lyndon Johnson's Great Society was implemented, it then increased by almost 15% between 1965 and 1967. However, this was the last dramatic uptick in employment for decades. In 1969, federal employment stood close to 2.9 million. Twenty years later, it had increased by 300,000; that averages out to less than 15,000 new jobs every year.

Federal employment fell from this height over the next decade, most likely due to cuts in defense spending. Following the end of the Cold War, President George H.W. Bush started the cuts, which were continued by President Bill Clinton. These cuts eventually led to job losses among civilians working with the military, with the total number employed bottoming out around 2.8 million in 1999. Though there was an uptick to nearly 3 million bureaucrats that coincided with the Great Recession during President Barack Obama's first years in office, federal employment has remained rather steady since 2000. It stood at about 2.8 million by 2016.

However, it is important to note that these are raw numbers. While the number of federal bureaucrats has remained relatively constant since the late 1960s, the population of the United States has seen tremendous growth. Therefore, while the total number of federal bureaucrats is about the same, the number of bureaucrats as a percentage of the population has shrunk. In 1967, federal bureaucrats were about 1.4% of the population; by 2016, that number was 0.87%, or about two-thirds of what it had been about fifty years earlier.

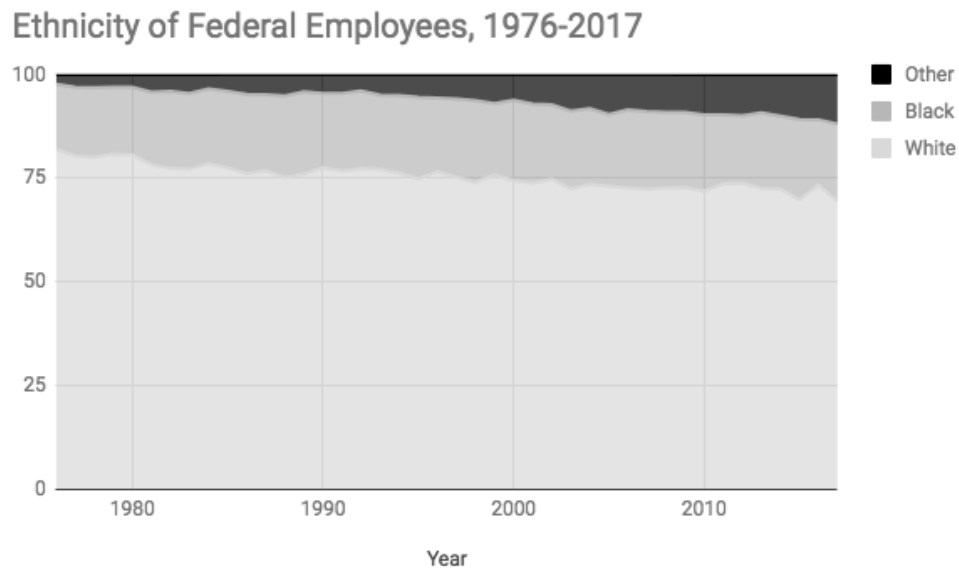
Demographically, a federal bureaucrat is likely to be a man. This has remained true since 1976; furthermore, the gender gap has remained constant over time. That is, for over 30 years, men have been about twenty percentage points more likely to be a federal public servant than women.

Figure 6.2: Gender of Federal Employees, 1976-2017



The federal workforce has seen some changes over time with respect to ethnicity. Whites made up over 80% of the workforce in 1976; they made up less than 70% by 2017. Those that were minorities saw the most growth during this time; while only 2.4% of federal bureaucrats identified as a minority other than black in 1976, that percentage increased by almost fivefold over the next 30 years.

Figure 6.3: Ethnicity of Federal Employees, 1976-2017



During this same time period, the average age of a federal bureaucrat grew slightly while the educational attainment increased dramatically. They were about 3.6 years older by 2017, meaning that a typical federal public servant was likely to be over 44 years old by that time. However, the percentage of federal bureaucrats with at least a bachelor’s degree increased from 20.7% in 1976 to 46.9% in 2017. These numbers mirror the growth seen in the public at large, though the government sector saw larger gains. For example, in 1976, only 15.4% of all of those 25 and older had at least a bachelor’s degree; that number grew to 34.16% in 2017.

Figure 6.4: Percentage of Federal Employees with a Bachelors, 1976-2017

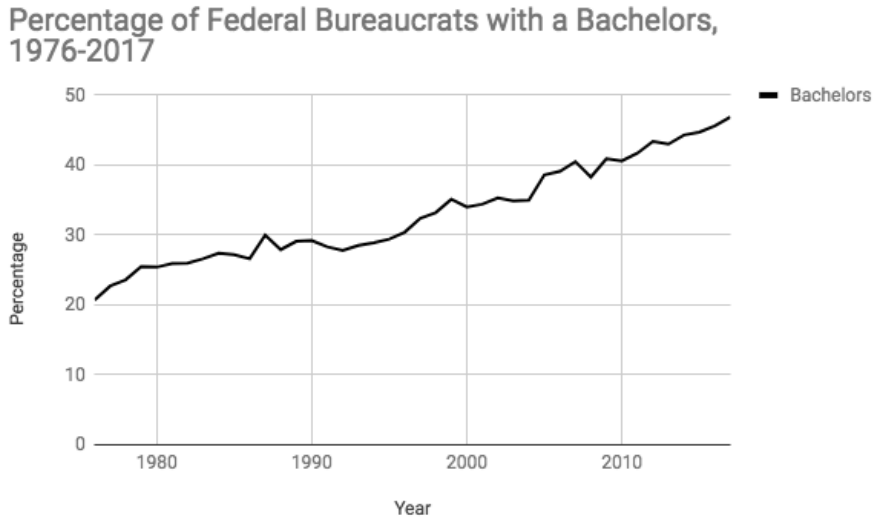
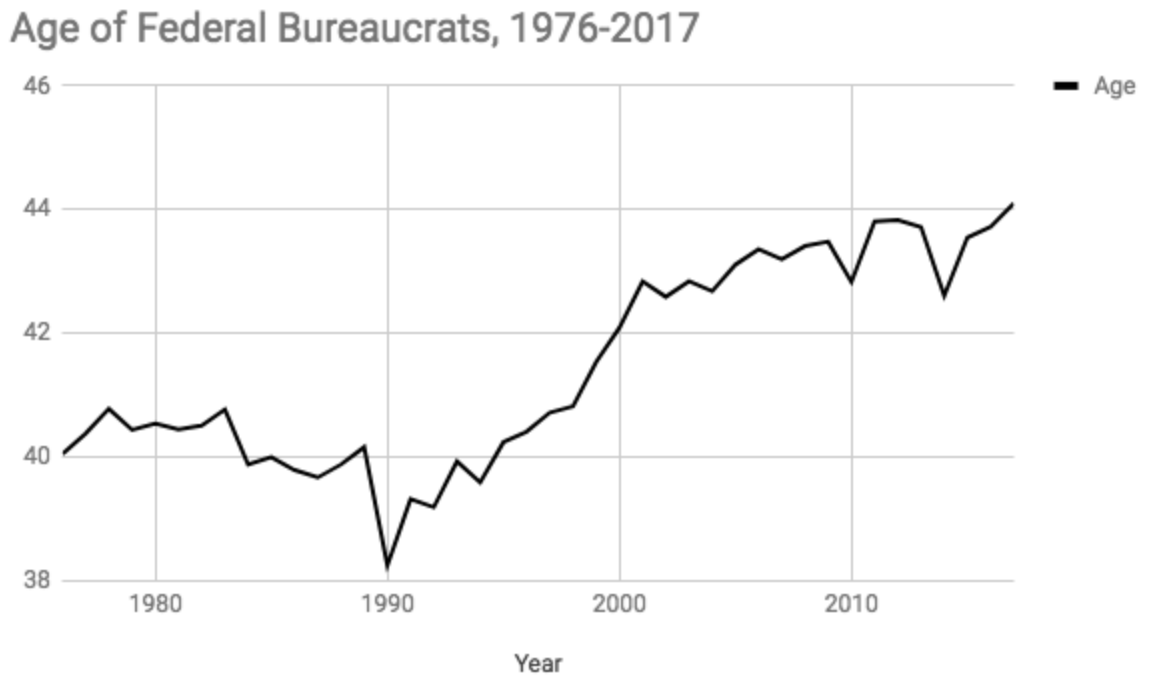


Figure 6.5: Average Age of Federal Employees, 1976-2017



If someone were to envision the average federal government employee today, that bureaucrat would more than likely work in either a security or defense-related agency. One of the largest employers of federal bureaucrats is the Department of Veterans Affairs; it employs over 16% of all federal bureaucrats. Another 40% of federal bureaucrats work either for the

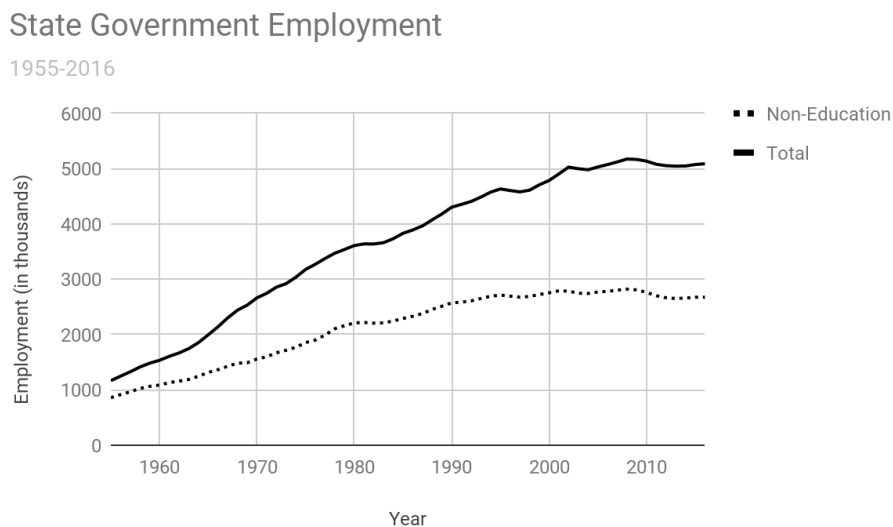
Department of the Army, Navy, Air Force, or Homeland Security. One of the largest employers outside of national defense is the Department of the Treasury; it employs almost 5% of all total federal government employees.

This average federal public servant would also be likely to work in an administrative or professional capacity. About two-thirds of bureaucrats work in such positions. The next most-common occupation category is technical work, which is limited to less than twenty percent of bureaucrats. Blue-collar bureaucrats are less than five percent of federal employees, with clerical bureaucrats making up an even smaller percentage.

6.3 State Bureaucrats - By the Numbers

The growth in the number of state bureaucrats has a decidedly more positive trajectory than that of federal bureaucrats. In 1960, there were almost 1.5 million state bureaucrats; by 2015, that number grew to over 5 million. In relative terms, there has in been an increase in state bureaucrats as a percentage of the population. State bureaucrats were 0.77% of population in 1960; they were 1.58% in 2015.

Figure 6.6: Number of State Employees, 1939-2016

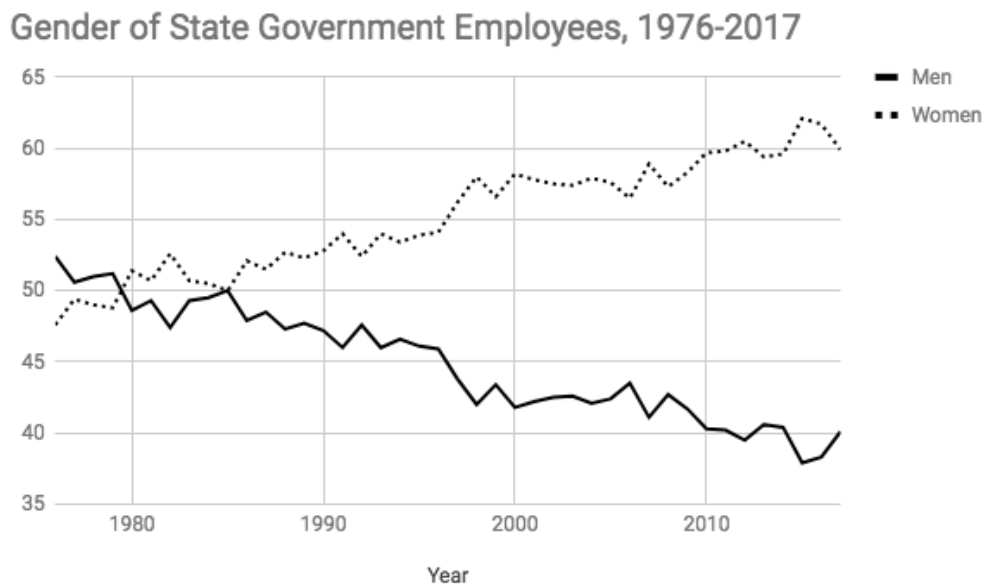


However, this growth in state bureaucrats has not been uniform; those bureaucrats in education make up a far larger percentage of the total number of bureaucrats today than they did in the 1960s. For example, of those 1.4 million state bureaucrats in 1960, about 400,000 were in education; of the 5 million state bureaucrats in 2015, over 2.4 million were in education. In other words, education bureaucrats moved from just over a quarter of total bureaucrats at the state level to almost half.

Furthermore, growth in non-education bureaucrats has been relatively non-existent since 1990. Since that time, only 100,000 new non-education bureaucratic jobs have been added. During this same timeframe, over 700,000 jobs in education have been added.

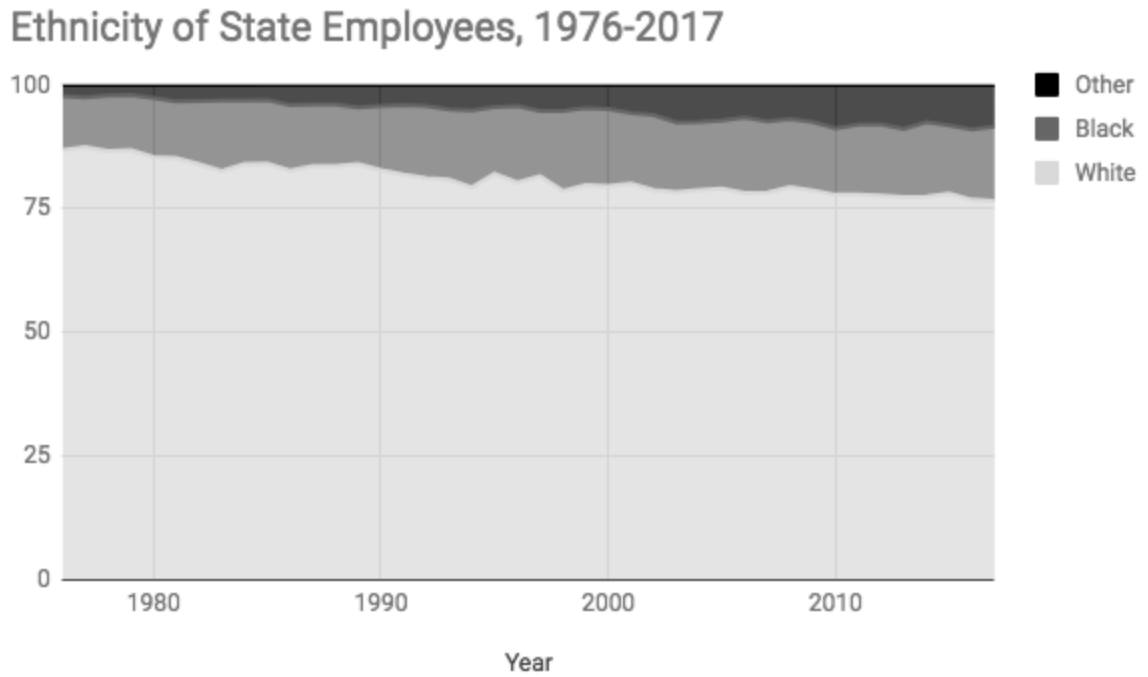
The gender makeup of state employees has changed dramatically over time. While men outnumber women by about five percentage points in 1976, women outnumbered men by over 24 points by 2015 before settling to around 20 points in 2017. This means there was about a thirty percentage point change in a thirty year timespan.

Figure 6.7: Gender of State Employees, 1976-2017



State bureaucrats have also become more diverse. The number of white employees dropped by about ten percentage points. Both black and other minorities saw gains of about five percentage points each over this time period.

Figure 6.8: Ethnicity of State Employees, 1976-2017



The average age of a state public servant also increased over time, as has their educational attainment. In 1976, the typical bureaucrat was around 37 years old and about 35% had a bachelors degree. By 2017, that number had changed to almost 45 years old and almost 60% had a bachelors degree.

Figure 6.9: Average Age of State Employees, 1976-2017

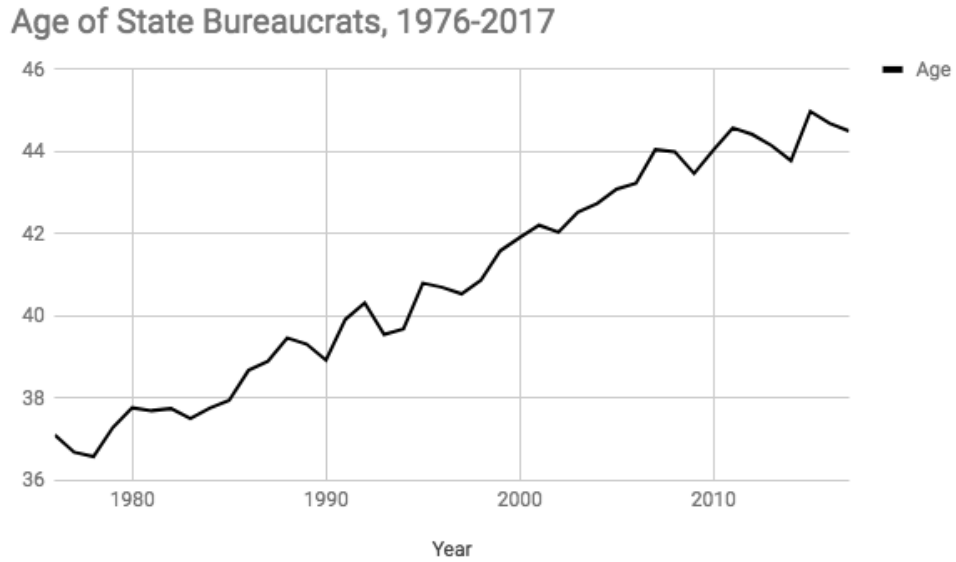
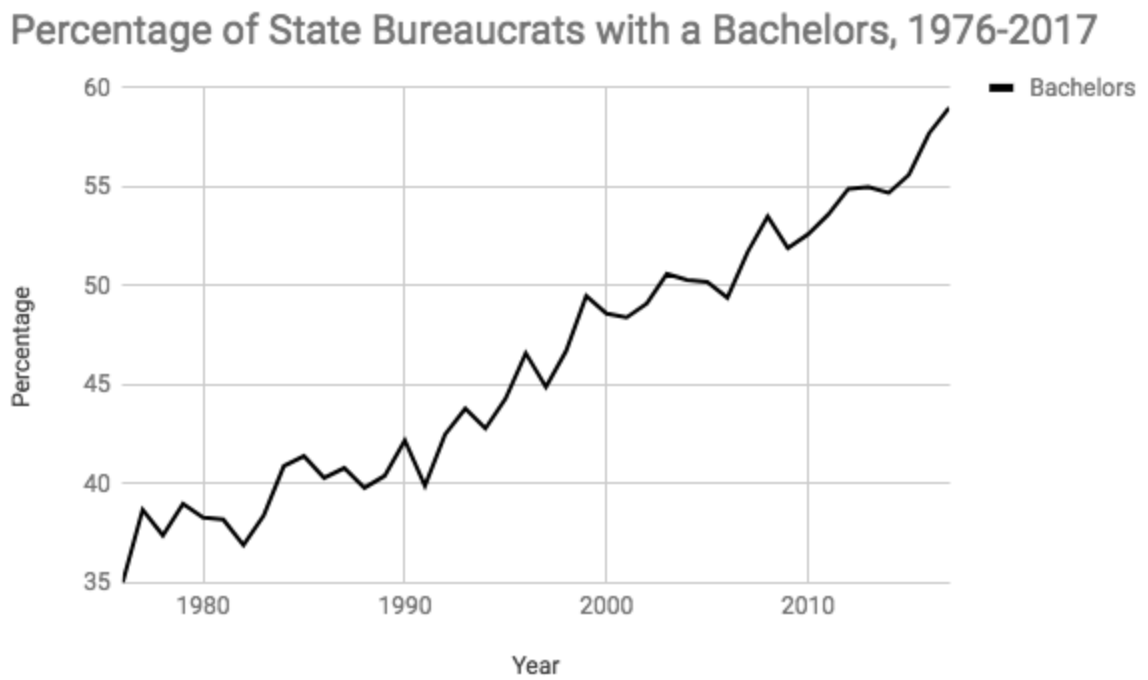


Figure 6.10: Percentage of State Employees with a Bachelors, 1976-2017



With respect to sector, the average state bureaucrat is likely to work in education; over 40% of state bureaucrats work in that area. The next-largest field of employment is in public health and hospitals, which account for about 14% of state bureaucrats. About one in ten state

bureaucrats works for corrections, with 6% work in public welfare. About one in twenty bureaucrats works for transportation, with judicial and legal, financial administration, natural resources, and police each having somewhere between 2% and 4% of the total number of bureaucrats.

That said, there can be some variation across states. In Hawaii, for example, almost two-thirds of state bureaucrats are in education; in Alaska, that number is closer to one-third. In some states, corrections is the second largest employer of bureaucrats; for example, 13% of state bureaucrats in both Texas and California work in corrections. However, most states broadly mirror the national trends.

The takeaway from this more descriptive analysis is that there can be differences both within and across state bureaucracies. While there can be variation in the percentage of state employees in a given department, most states closely resemble each other in the number of state employees in each sector. Additionally, there has been a complete reversal in the sex of the typical state bureaucrat; while men were more common in the 1970s, women now greatly outnumber men.

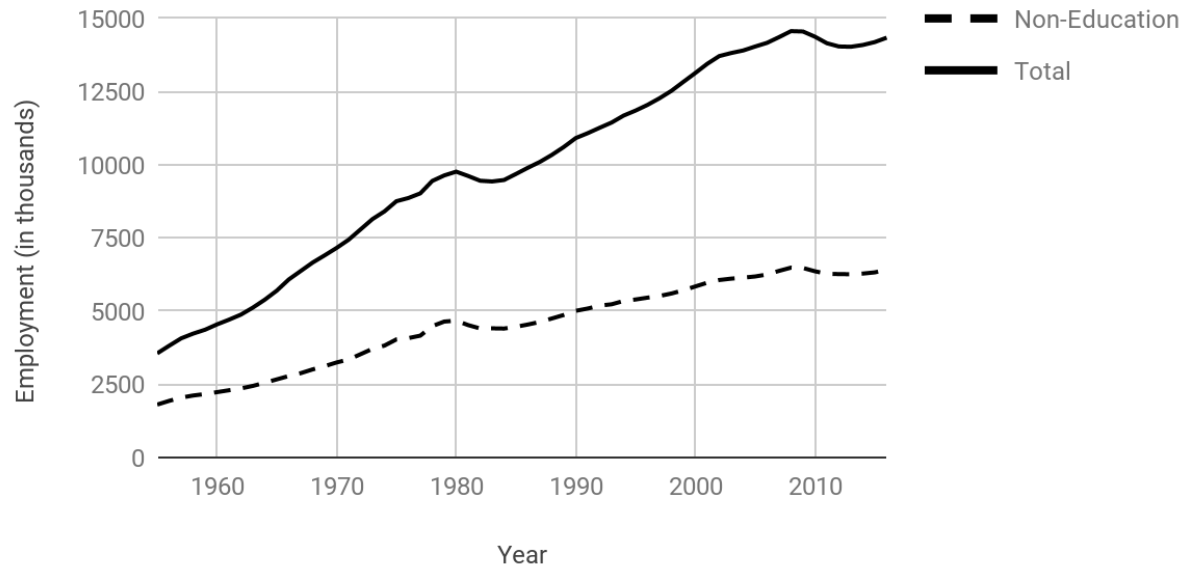
6.4 Local Bureaucrats - By the Numbers

There has been tremendous growth in the number of local bureaucrats over time. In 1955, there were about 3.5 million local bureaucrats; by 2016, that number was over 14 million. During this time period, relative to the total population, the number of local bureaucrats more than doubled from 2.1% in 1955 to 4.4% in 2016.

Figure 6.11: Number of Local Employees, 1939-2016

Local Government Employment

1955-2016



Much like the numbers for state bureaucrats, growth in the number of local bureaucrats was spurred on by education. For example, in 1955, there were about 1.75 million bureaucrats in local education; by 2016, that number was close to 8 million. In 2016, over 55% of local bureaucrats were in education. By comparison, almost 48% of state bureaucrats were in education.

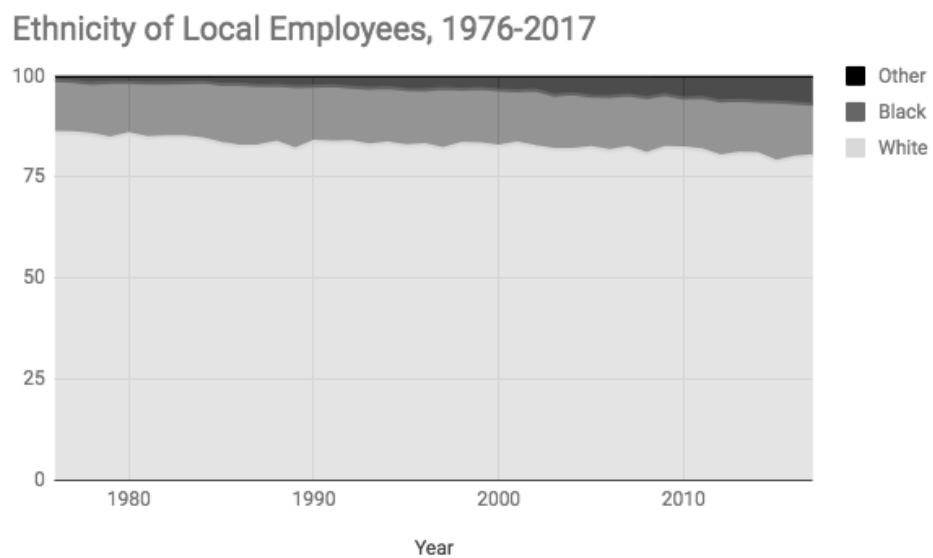
Also mirroring state bureaucrats is the gender gap among local government employees, as women outnumber men. The gap doubled between 1976 and 1993, increasing from about 11 percentage points to 22 percentage points. However, since that time, the gap has remained relatively constant.

Figure 6.12: Gender of Local Employees, 1976-2017



The ethnicity of local bureaucrats has changed slightly over time. The number of white bureaucrats dropped by about six percentage points since 1976, while the percentage of black bureaucrats has stayed the same. That said, the percentage of other minorities increased during that same period from 1.1% to 7%.

Figure 6.13: Ethnicity of Local Employees, 1976-2017



Local bureaucrats have also aged over time and increased their educational attainment. While the average local bureaucrat was around 38 years old in 1976, that average bureaucrat was almost 46 years old in 2017. With respect to education, around 38% of local employees had a bachelors degree in 1976; this number was over 50% by 2017.

Figure 6.14: Average Age of Local Employees, 1976-2017

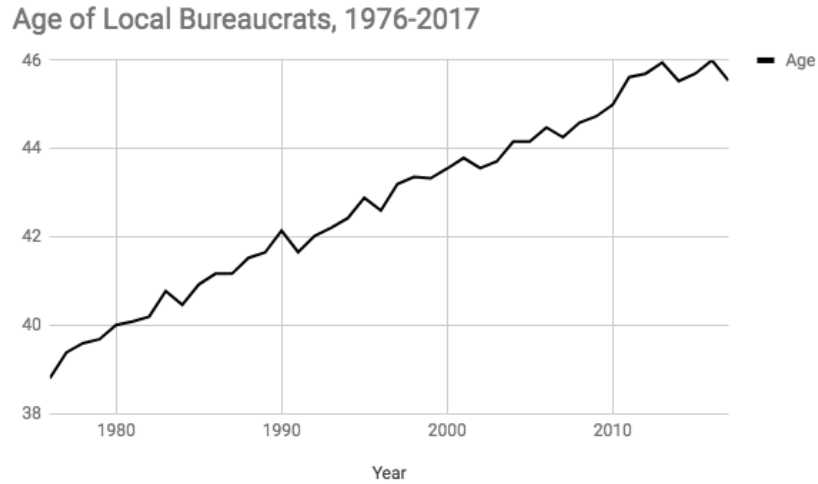


Figure 6.15: Percentage of Local Employees with a Bachelors, 1976-2017



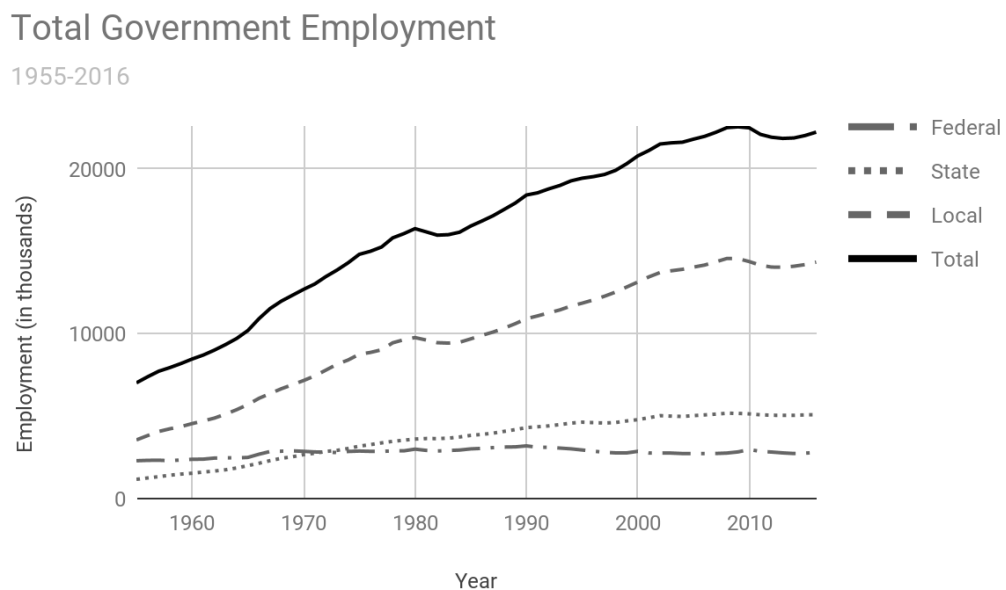
With respect to job sector, among those bureaucrats not in education, many were in public health and safety. Those in police protection, fire protection, and corrections make up the next largest percentage, followed by those in hospitals and health. Parks and recreation is also a

large category, as are libraries. Many other bureaucrats are scattered among departments such as solid waste management, water supply, electric power, and gas supply.

6.5 All Bureaucrats - By the Numbers

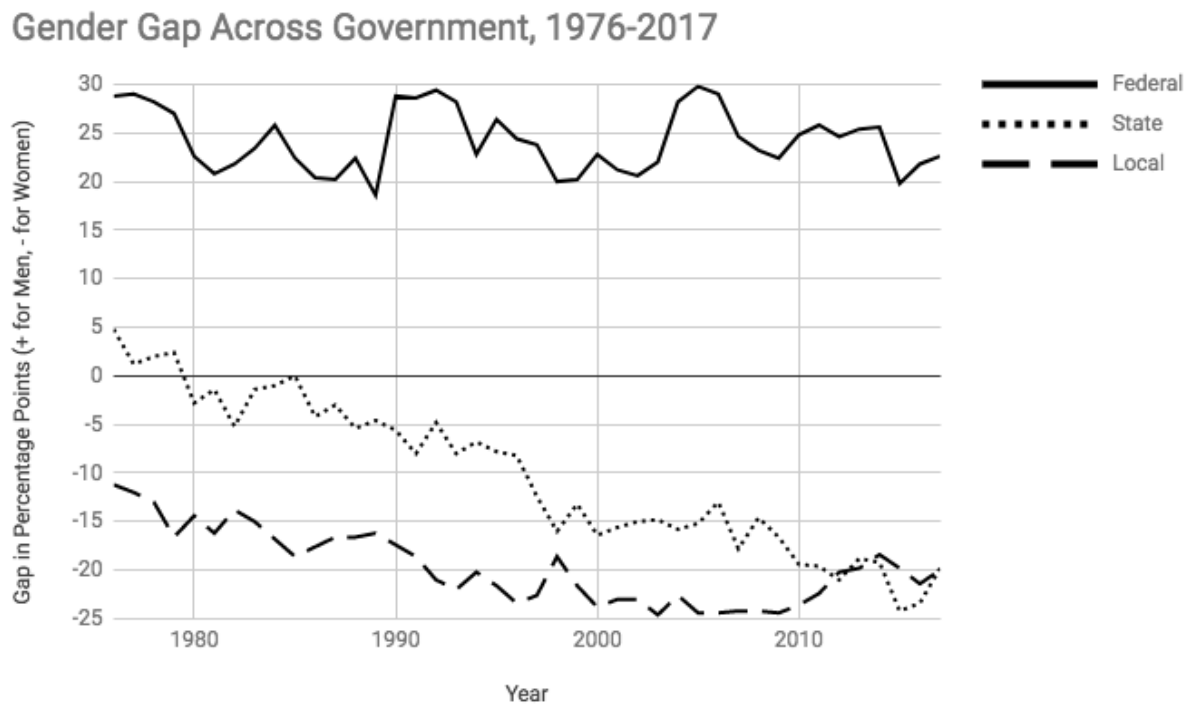
The following figure shows how the total number of bureaucrats, including teachers, grew over time. Numerous trends are apparent. For example, this chart highlights the relatively stagnant growth in federal employment; the line remains almost flat during this time period. Additionally, this chart shows that state employment passed federal employment in total numbers in the early 1970s; the gap between federal and state employment grew to over 2.2 million by 2016. What also stood out is how much more local government contributed to total government employment. In 1955, local bureaucrats made up over half of all bureaucrats; that number had grown to almost two-thirds of all bureaucrats by 2016. Likewise, the percentage of people employed by government has also changed over time. In 1955, about 4% of all people were bureaucrats; by 2016, that number was almost 7%.

Figure 6.16: Number of Federal, State, and Local Employees, 1939-2016



How have the demographics of government workforces changed over time? While all three levels moved in tandem across most demographic measures, the largest difference was with respect to gender. While each sector of government has a gender gap of similar magnitude, each has a unique trend with respect to changes in the proportion of men and women working at each level. The gender gap for federal employees and state employees has remained relatively constant over time, but the gaps are in opposite directions; while over 60% of federal bureaucrats are men, a similar percentage of local bureaucrats are women. Meanwhile, while men outnumbered women at the state level in 1976, those percentages reached parity just ten years later and women now outnumber men by around 20 percentage points.

Figure 6.17: Gender Gap Across Federal, State, and Local Employees, 1976-2017



Changes in the ethnicity of bureaucrats across different levels of government appear to move more in unison at the federal and state level than at the local level. Those two levels of

government have seen double-digit percentage point drops in the number of white employees and increases in the percentage of black employees. Those of other minority ethnicities have seen tremendous increases in their level of representation across all levels; for example, while only 2.4% of federal bureaucrats identified as a minority other than black in 1976, that percentage increased by almost fivefold over the next 30 years.

Across all three levels, the average age of employees has increased to the mid-forties. Federal bureaucrats saw the smallest age increase at 3.6 years, while state and local bureaucrats saw larger increases, at 7.39 years and 6.73 years, respectively. While the increases in age across all bureaucrats has appeared to level off, the standard deviations for all three have increased. This is in line with the notion that fewer young people are becoming bureaucrats while older bureaucrats are postponing retirement.

Public servants are generally well-educated and this trend has continued across time; however, there is some variation across the different levels of government. For example, the percentage of federal bureaucrats with at least a bachelor's degree has more than doubled since 1976 (20.7% to 46.9%). Also, state bureaucrats are the most likely of the three levels to have at least a bachelor's degree.

Though there are some notable differences, local, state, and federal bureaucrats largely resemble each other with respect to race, age, and education, and have continued to do so over time. They have become more diverse, more educated, and older. That said, there are vast differences with respect to gender parity among the different levels of government. Each level has around a twenty percentage point gap with respect to gender, but that masks both the directions of those gaps and the trends that brought the gaps to this point. Women are far more

likely to be local or state bureaucrats. Furthermore, while the direction of the gap has remained constant for local and federal bureaucrats for over three decades, the same cannot be said of state bureaucrats, which have seen an almost thirty percentage point swing with respect to gender in the past thirty years.

6.6 Hypothesis

Having a better understanding of who bureaucrats are and what they do, it is important to revisit the question that urged this analysis: Are there differences in PSM for different types of bureaucrats? Based on this review, it is clear that bureaucrats perform very different functions at the state and local levels than at the federal level. Those working for the federal government are more apt to work in administrative positions and in a sector concerned with national security or defense, while state and local bureaucrats are more likely to be in education or public health and safety. Even excluding teachers, those at lower levels of government are far more likely to directly interact with those who are benefiting from their services, while federal bureaucrats would rarely meet those whom they help. Studies have shown that interfacing with those who benefit from your work leads to increases in PSM (Belle 2013). Given the differences in the types of work done at the federal level versus the state and local level, it is hypothesized that state and local bureaucrats will have higher PSM than federal bureaucrats.

Furthermore, given the data available, this is a conservative test of the hypothesis. While it is likely that many at the state and local levels of government will be in more public-facing occupations than those at the federal level, they are far from homogenous. Since there is diversity in the types of occupations at the different levels of government, treating all state and

local bureaucrats in the same manner makes it more difficult to detect any differences in PSM by occupation. Therefore, this analysis should be treated as a strict test of this hypothesis.

6.7 Data and Analysis

First, t-tests will be used to see if there are any initial differences in PSM among different types of government employees. First, PSM is split into two groups at the median, thus creating a “high PSM” group and a “low PSM” group. Then, the t-tests are used to see if state and local or federal bureaucrats make up a larger percentage of those that are high in PSM than those that are low in PSM. The results are in the following table. For both groups of bureaucrats, there were no significant differences in high PSM or low PSM. While there were more in the high PSM groups than in the low PSM groups for both state and local as well as federal bureaucrats, the differences did not approach significance.

Table 6.1: T-Tests for Low and High PSM

	Low PSM	High PSM	Significance
State/Local	11.01	11.03	0.48
Federal	3.28	3.3	0.47

To see if those at different levels of government have different levels of PSM, a regression model will be used. The dependent variable will be the respondent’s index measure of PSM.

The independent variables for the model will come from the literature. The variables of note will capture government employment. This will be included as a series of dummy variables covering various types of employment. The other independent variables will be the same variables that have been used elsewhere to help measure PSM. These variables include sex, race, marital status, parental status, education, income, and church attendance. However, this model

will also include a measure of the respondent's age. Given that age has a larger degree of variance in this dataset than in the previous one, and since age has been shown to have a positive (Perry 1997) and negative (Bright 2005) effect on PSM, it will be included.

Prior to running the model, the problem of missing data must be addressed. Many of the variables are missing observations; the complications of this are compounded when variables are combined. For example, the creation of the index measure of PSM reduced the sample size by over one-third.

To address this, full information maximum likelihood (FIML) was used. FIML does not create nor does it impute data; rather, it recovers lost information by estimating multiple maximum likelihood functions at the same time with all of the available data. This approach has been argued to improve upon older techniques for handling missing data, such as multiple imputation (Enders 2010, Enders and Bandalos 2001). FIML has been used regularly in political science (Evans and Anderson 2006, Carsey and Layman 2006, Kalkan et al. 2009) and public administration (Morgeson 2013, DeHart-Davis et al. 2015, Anderson and Potoski 2016).

The results of the model are displayed in the following table. Demographic variables were significant. Men saw an increase in PSM of 6 points, while those that were white saw an increase of 2 points. Age also had a positive effect on PSM; increasing age by 10 years added roughly 3 points to PSM. Graduating from college had a 4.5 point effect on PSM. Marriage had a negative effect of about two points, while attending church added 0.5 points to PSM. Increases in income also boosted PSM.

Most importantly, the regression model for the composite measure of PSM showed that some government employees did have higher PSM than others. Federal employment did not

appear to have an impact on PSM; however, employment at the local or state level had a modest positive effect on PSM of 1.4 points. Employment in other sectors of the economy did not have an effect on PSM.

Table 6.2: Regression with Full Maximum Likelihood for PSM

Variable	Coefficient	Stand. Error
Nonprofit	0.6794758	0.6673261
Private	0.8294124	0.5606433
State or Local	1.42004	0.6683334
Federal	-0.9575468	0.9115299
Democrat	3.064836	0.105101
Republican	2.003089	0.1085096
Male	6.277408	0.2054878
White	2.188137	0.2584776
Married	-2.42615	0.2298788
Age	0.2781916	0.0068549
College	4.473047	0.2523132
Income	1.239283	0.0352091
Church	0.5638011	0.2364403
Constant	22.79539	0.6692695
N	36,421	
Log likelihood	-536544.45	

*Note: Variables in **bold** are significant at the 0.05 level

It may be argued that this effect is solely driven by teachers, as they make up a substantial number of local and state bureaucrats. While some argue that teachers are the quintessential representation of a bureaucrat (Meier and Stewart 1992), others argue that they should not be treated as bureaucrats (Brown, Earle and Gehib 2009). Therefore, the analysis was

rerun excluding teachers. The results did not significantly change. This suggests that teachers are not driving this effect.⁷

It could also be argued that it is not the type of employment that matters, but rather employment in and of itself that impacts PSM. Perhaps there are differences in PSM between those with jobs and those without, and the differences between types of workers are largely artifacts of simply being employed. To test this, a model was run with various categories of employment (ex. Full-time, part-time, retired, disabled, etc.) as independent variables. No employment variable was significant. In other words, being in or out of the workforce did not impact PSM. This suggests that PSM is largely untethered to employment, broadly speaking. It is not a job or a lack of a job that impacts PSM; rather, it is the type of employment that matters.

6.8 Discussion and Conclusion

In summary, there are differences in PSM for government employees at different levels of government. Those that work for either state or local government are more likely to have higher PSM than those that work at the federal level. This does not appear to be an artifact of simply having a job; rather, this is distinctly related to working for specific levels of the government.

Why is this finding notable? Few studies have looked at differences between bureaucrats with respect to PSM. Prior studies have treated all bureaucrats as monolithic. Some group together all bureaucrats without providing an explanation, while others focus on specific types of

⁷ The question used to measure this stated, “Do you work in public education?” While it is assumed that teachers make up a significant portion of the respondents, the wording of the question does not limit responses exclusively to teachers; for example, administrators could also be included. However, such a measure has the added advantage of including the multiple education specialists who would be excluded if the sample was limited strictly to teachers (reading interventionists, tutors, etc). Additionally, it excludes private school teachers. This latter point is a strength of the measure, as private school teachers are by definition not employees of the city or state and should not ever be considered to be bureaucrats.

bureaucrats and then generalize their findings to all bureaucrats. This analysis suggests that such aggregation or extrapolation should not be performed if lacking a theoretical base.

Furthermore, by finding support for this hypothesis, these results build upon earlier work that suggest that interacting with clientele increases PSM. Bureaucrats at the federal level may thus be better served by increasing their involvement with those that benefit from their services. Additionally, such interactions may not only boost PSM, but given the benefits of PSM, may also improve the delivery of services at the federal level. This means that taking steps to show federal bureaucrats the importance of their work may lead to increased government performance.

What are the implications of this finding? Future studies could further examine the differences in PSM between bureaucrats. While this analysis treated local and state bureaucrats as generally more public-facing than federal bureaucrats, there is variation within those sectors. Some state bureaucrats work in sectors that are more public-facing than others; those in public health are more likely to interact with people than those in natural resources. Those differences could be more rigorously examined. Any differences that are found could better inform ways to stimulate the development of PSM within public servants.

These chapters have examined numerous questions concerning public service motivation. What are the implications? What next steps should be taken? Those questions will be addressed in the following chapter.

7 Conclusion

This dissertation set out to examine several questions concerning public service motivation. Though numerous studies had shown positive implications for having high levels of PSM, there had not been a corresponding complement of analyses examining PSM itself. If PSM is so important for bureaucrats themselves and for bureaucracy writ large, enlarging the understanding of it could potentially have an impact on how bureaucrats are hired, retained, and motivated, and could also impact the delivery of services.

To examine this required data from two different sources. The first data source was the Youth-Parent Socialization Panel Study, while the second was the Cooperative Congressional Election Study. The former was a panel study that interviewed both parents and children and then re-interviewed the children over a span of thirty years. The latter was an online survey completed in the mid-2000s.

The definition and measurement of PSM were crucial to the paper. Based on a review of the literature, PSM was defined as “attitudes and behaviors oriented towards serving others.” To measure this, four distinct variables were selected: interest in public affairs; political knowledge; political involvement; and group membership. These variables were then combined into a unidimensional measure of PSM and verified using several different data sets.

The first question examined asked, “What are the causes of PSM?” To date, no study had been able to include parental data in addition to data collected from people prior to entering college or gaining their first job. Since previous studies of this question had relied on data based on recall and that was collected after college or employment, there was the potential for bias if PSM was dynamic. Determining the antecedents of PSM had implications for studies of

longitudinal changes in PSM. If PSM was static, then it was important to understand what caused it to know where to look for it. If PSM was dynamic, then a greater understanding of initial levels of PSM could help in understanding how it might change in the future.

Data from the Youth-Parent Socialization Panel Study from both parents and children was used in nested regression models. These models showed that parental characteristics and religious practices had a tremendous impact on initial levels of PSM. Those with parents with increased education or with higher levels of PSM often had higher PSM of their own, while those who attended church more often had higher PSM but those with more fundamentalist views tended to have lower PSM.

This study made important contributions to the understanding of the foundation of PSM. It was the first time that direct measures from parents were included. Also, it was the first study that also included a measure of PSM gathered prior to employment or college.

These results speak to the power of socialization. Family is seen as a primary socializing agent. It is therefore not surprising to find that parental PSM has such a large impact on the PSM of their progeny. These results suggest that being in an environment where such attitudes and behaviors are practiced by parents has a profound impact on PSM.

There are several implications from these results. First, how have changes in family structure and religious practices impacted PSM? The data used for this study was gathered in 1965. Since that time, fewer people attend church weekly or possess fundamentalist views. Have those trends cancelled out each other in contemporary PSM?

Additionally, far fewer people are growing up in households with two married parents, which was the case for well over 90% of those in this study. If children are not spending time

with both parents, will they be socialized to pick up PSM? While Dolan (1995) found no relationship between family structure and a host of political variables, other have argued that children in single-parent homes have lower rates of voter turnout, especially in white families (Sandell and Plutzer 2005, Pacheco and Plutzer 2008, Voorpostel and Coffe 2015). Those scholars have asserted that the consequences of divorce were what affected voter behavior, such as reduced discussion of current events or increased residential mobility (Sandell and Plutzer 2005).

However, Sances (2013) suggested that focusing on divorce or parental absence itself, as opposed to the causes of those things, was a problem of selection bias. Instead, he argued that the decision to be divorced or to be a single-parent may also influence the decision to socialize children into politics. Testing this with an instrumental variable analysis that used parental death as an instrument for changes in family structure, he found that growing up without two parents had no impact on voter turnout. In other words, the traits that impact socialization may also impact choices about family structure, which implies that family structure in and of itself may not have a role in the socialization literature.

Given the overlap between political socialization and PSM, the same may be true of PSM, but more analysis is needed. However, while studies of political socialization have found that the effect from parents wanes over time (Jennings 2007), this dissertation found that the effect of childhood PSM was constant over time. Thus, differences in socialization may be more important within the context of PSM.

The consequences of such changes are important. Later analysis in this dissertation suggested a degree of dynamism to PSM. If people are not socialized by family and faith, their

PSM may be more susceptible to changes later in life. Perhaps the variables that change PSM in this study, such as partisanship or government employment, take on a greater magnitude if family and religion do not impact PSM in the same manner. Or, other variables that did not impact changes in PSM may suddenly become important. Therefore, it is important that subsequent analysis of PSM include longitudinal studies with more contemporary data to see if such trends have developed.

The second question in this dissertation asked, “Is PSM static or dynamic?” If PSM was found to be dynamic, then time could be spent determining how to cultivate it. If it was static, then the emphasis could shift to trying to find people who are already high in it when making employment decisions. Furthermore, past studies had come to conflicting conclusions about how PSM changed over time, with studies showing that it increased, decreased, increased then decreased, or increased and decreased simultaneously. To date, no study had analyzed PSM over a long period of time in the United States using a representative sample of the population. Also, no panel had been able to see if childhood PSM had an effect in a longitudinal study of PSM.

Data from the Youth-Parent Socialization Panel Study was used in fixed panel regression analysis to study longitudinal changes in PSM. In the panel from 1973 to 1982, becoming a government employee or identifying with a political party had positive effects on PSM. For the panel from 1982 to 1997, while becoming a government employee continued to have positive effects, only personal events such as marriage or church attendance also exerted positive effects on PSM.

This analysis made numerous contributions to the study of PSM. First, the structure of the study was unique. By using data gathered over a span of thirty years, it was the longest time

period under study with respect to PSM in the United States. While other panel studies in the United States focused on specific subsets of the population, this was the first to include a representative sample of the country. Additionally, numerous controls were able to be included that were lacking in previous studies.

The findings from the study were also quite notable. First, it was interesting to note that there are differences between the two panels; political variables were significant in the earlier panel, while life events were significant in the later panel. This suggested that some of the factors that impact PSM may only do so at specific times in someone's life. Later studies could try to unpack why particular variables appear to matter at different times.

Also of interest is the use of a fixed effects panel regression when including a measure of childhood PSM. Hausman tests concluded that childhood PSM exerted a constant effect over time on later PSM; thus, it could be omitted from the model. However, its omission does not suggest that it lacks importance. Rather, what this showed was that the effect of childhood PSM was felt throughout life; furthermore, the impact of childhood PSM did not diminish over time. This suggested that childhood PSM provided a firm foundation for PSM. While PSM did show some malleability over time, the early factors that influence PSM, which were mainly from parents and from religion, were perpetually present. This also speaks to the power of the socialization of PSM. Given the stability of childhood PSM and the steady impact it has throughout life, there is more urgency to understand if and how changes in family and faith have also changed how PSM is socialized.

Given these findings, more time could be spent discovering how to better cultivate PSM among bureaucrats. While this study suggested that becoming a bureaucrat has a positive effect

on PSM, it did not speak to what mechanisms were at play that make this happen. Bureaucrats may be socialized into increasing their PSM. Some studies suggest that PSM could be increased (Belle 2013). However, these were short-term interventions and it is not yet known if the effects are felt over a significant period of time.

The other significant variables in the model also point to future considerations in later studies of PSM. For example, PSM is usually not associated with extrinsic motivations, such as increases in salary; however, this study found that this had a positive effect on PSM. While many high in PSM may claim that money may not matter when they are surveyed, this study suggests that it is impactful. This speaks to the importance of studies using actual behavior as opposed to surveyed opinion. This also suggests that increasing salaries may also be a potential avenue for cultivating PSM in government employees.

Additionally, church attendance is found to have a positive effect on PSM. Coupled with the finding from the study of the antecedents of PSM of the importance of church attendance on PSM, this suggests that religious practices have the potential to have a lifelong effect on PSM. That said, as fewer people identify with a religion or regularly attend houses of worship, a potentially positive driver of PSM may be lacking from the lives of many people. Will other activities fill this void and increase their importance, or will this have a meaningful impact on all people over time? These and other questions arising from this finding suggest that more longitudinal studies of PSM should be conducted to see if and how these variables have changed over time.

The third question asked, “Does higher PSM lead to government employment, or does working for government lead to increases in PSM?” To date, no studies had been able to look

simultaneously at both questions. Many studies that suggested that higher PSM leads to government employment were cross-sectional in nature, thus leaving questions about the direction of causality. While some had found that those with higher PSM were more likely to want to work for government and to subsequently work for government (Wright and Christensen 2010), others had found that PSM had no effect on either the desired sector of employment or on the eventual sector of employment (Kjeldsen and Jacobsen 2012).

Determining the direction of causality would help establish the direction of future studies. If higher PSM led to government employment, not only would support be found for one of the original premises of PSM set forth by Perry and Wise (1990), but then scholars could shift their focus to ways of making bureaucracy appealing to those low in PSM. If government employment increased PSM, then more research could be devoted to discovering what is unique about government employment that boosted this attribute.

To analyze this question, data was used from the Youth-Parent Socialization Panel Study. To determine the effect of PSM on government employment, a logit model was used; for the effect of government employment on PSM, a fixed effects panel model was used. The logit model, using PSM measured years prior to employment, found that those higher in PSM as children were more likely to become government employees; however, this effect was almost entirely mediated by graduating from college. The fixed effects panel model showed that government employment had a positive effect on PSM.

There are numerous implications from these findings. First, this is the first study to show the impact of childhood PSM on graduating from college. Given that most studies of PSM focus on people that have already graduated from college, the impact of childhood PSM has not been

directly assessed. This again suggests that researchers should obtain early measures of PSM to more accurately assess its effects. Additionally, nothing in this study points to a mechanism for why PSM grows in people when they become bureaucrats. Though bureaucracy has been suggested to be a potential source for the socialization of PSM (Brewer 2003), the exact agents within government that shape PSM are still unknown. Future studies may try to determine why this happens.

Furthermore, this result, coupled with earlier findings, suggest a potentially rocky future for PSM. The analysis on the antecedents of PSM showed that parental traits and religious practice heavily influenced PSM. However, given the changes in family structure, coupled with a decline in formal faith practices, there is some uncertainty as to the shape of PSM in young people today. If these changes have led to lower initial levels of PSM in children, then what are the implications for a new generation of bureaucrats with lower overall PSM? This, and other interrelated questions, are ripe for examination.

The fourth question asked, “Are there differences in PSM for different levels of government employees?” While PSM appeared to be higher among government employees, little is known if this is uniform or concentrated in specific levels of government. If there were differences, then more time could be spent determining why there were differences or on implementing ways to increase it in areas where it was not high.

Data from the CCES was used in a regression analysis to see if federalism impacted PSM. It was found that working for local or state government had a positive effect on PSM, while working for the federal government had no effect.

These findings were notable. No study to date had compared local, state, and federal bureaucrats in their levels of PSM. Many have either grouped all bureaucrats together or omitted various levels; this suggested that treating bureaucrats uniformly may mask important differences.

There are several implications from this finding as well. For example, why does it appear that PSM is not uniquely important for federal employees? In their study of the federal bureaucracy, Bachner and Ginsburg (2016) found that many career bureaucrats were not only dismissive in their views of the public, but often did not accurately know what the public believed or wanted from government. It may be that this disconnect from the concerns of the people they are serving stems from the fact that they do not encounter the people on a regular basis. Those working at the local or state level would be far more likely to interact with those affected by their work than those clustered around Washington. Again, Belle (2013) showed that interacting with beneficiaries increased PSM in bureaucrats. This suggests that if federal bureaucrats saw the impact of their work, it may lead to increases in PSM. Furthermore, this may be a more cost-effective way to motivate employees than via pay raises. Additionally, it provides more support for the movement that suggests federal bureaucracies should be spread around the country to better understand the communities they serve.

This dissertation was not without its shortcomings. For example, PSM was not measured using a traditional question battery. Doing so would increase the confidence in the findings. That said, the variables used to measure PSM are similar in scope to numerous other studies of PSM that rely on appropriated datasets and in some cases are more rigorous than past studies of PSM. Furthermore, this measure was compared to several other datasets that were more closely aligned

with traditional measures of PSM and analysis suggested that this proposed measure tapped into PSM. Also, some flexibility may be needed when trying to study PSM in eras before it was defined. That said, future studies would be wise to include more contemporary measures of PSM to ensure the robustness of these findings.

Additionally, “bureaucrat” was usually measured in a blunt fashion that grouped together those working at different levels of government, different areas of government, and in different capacities. The last section of this dissertation argues that bureaucrats at different levels of government may possess different levels of PSM; therefore, grouping together all bureaucrats may mask underlying heterogeneity. However, given the types of questions asked in this project, such a measure of “bureaucrat” was usually appropriate. That said, future studies may wish to consider how differences across bureaucrats may manifest themselves.

Also, the time period under study for most of this project is quite removed from today. As noted earlier, family structure and religious practices have changed since the 1960s. Additionally, the world is a different place today as well. Those surveyed as children in 1965 lived through the Vietnam War and Watergate; would those who were socialized in a post-9/11 world be different? Therefore, later studies of PSM would be wise to consider how the context in which the data was gathered may impact their results.

PSM is a powerful concept. This dissertation has examined where it comes from, how it changes, who has it, and how working for government has a powerful reciprocal relationship with it. That said, there are now countless questions that these results have introduced. Given its importance, PSM will hopefully continue to be better examined and understood so as to continue to improve our understanding of bureaucracy and the people within it.

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Appendix A

Question Wording for PSM Scale - Parental/Adult PSM from Youth-Parent Socialization Panel Study

Interest in Public Affairs

Some people seem to think about what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government most of the time, some of the time, only now and then, or hardly at all?

Political Knowledge

Next, I'd like to ask you a few questions that you may or may not be able to answer. We don't expect people to know all the answers. [Note: Responses were open-ended]

- About how many years does a U.S. Senator serve?
- Marshall Tito is a leader in what country?
- Do you happen to know about how many members there are on the United States Supreme Court?
- Who is the governor of (this state) now?
- During World War II, which nation had a great many concentration camps for Jews?
- Do you happen to recall whether President Franklin Roosevelt was a Republican or a Democrat? Which?

Campaign Activities

I have a list of some of the things that people do to help make an election come out the way they want it to. I wonder if you could tell me whether you have done any of these things during the past ten years? By that I mean elections for public office or votes on issues, propositions, referenda, and so on.

- First, did you ever talk to any people and try to show them why they should vote one way or the other?
- Did you go to any political meetings, rallies, dinners or things like that?
- Did you go to any other work for a party, candidate or issue?
- Did you wear a campaign button or put a campaign sticker on your car?
- Did you give any money or buy any tickets to help a party, candidate, or group pay campaign expenses?

Organizational Membership

Here is a list of some kinds of organizations to which people may belong. Just tell me the letter on the card of any type of organization you belong to.

- Church connected groups like church men's club or ladies' society
- Lodges or fraternal organizations, such as the Masons, Knights of Columbus, Elks, Eastern Star.
- Business or professional groups
- Service groups such as Lions, Rotary, or Civitans
- Neighborhood clubs or associations

- Groups concerned with civil rights or civil liberties
- Sports teams like bowling or baseball
- Informal clubs or groups like bridge clubs, poker clubs, or sewing circles
- Farm groups
- Women's clubs or groups

Are there any groups you belong to that I haven't mentioned? [Open-ended]

Appendix B

Question Wording for PSM Scale - Childhood PSM from Youth-Parent Socialization Panel Study

Interest in Public Affairs

Some people seem to think about what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government most of the time, some of the time, only now and then, or hardly at all?

Political Knowledge

Next, I'd like to ask you a few questions that you may or may not be able to answer. We don't expect people to know all the answers. [Note: Responses were open-ended]

- About how many years does a U.S. Senator serve?
- Marshall Tito is a leader in what country?
- Do you happen to know about how many members there are on the United States Supreme Court?
- Who is the governor of (this state) now?
- During World War II, which nation had a great many concentration camps for Jews?
- Do you happen to recall whether President Franklin Roosevelt was a Republican or a Democrat? Which?

Campaign Activities

We're also interested in finding out whether students ordinarily pay much attention to current events, public affairs, and politics.

- Do you read about public affairs and politics in any newspaper?
- Do you listen to any programs about public affairs, politics, and the news on the radio?
- Do you watch any programs about public affairs, politics, and the news on television?
- Do you read about public affairs and politics in any magazines?

Organizational Membership

We find that students differ quite a bit in how much they participate in organizations and activities. I would like you to look at this card as I list some kinds of organizations. For each kind I read, would you tell me the number of the statement which best describes your activity for the past two years.

- School newspaper, magazine, or annual.
- Hobby clubs such as photography, car clubs, and crafts.
- School subject matter clubs such as science or language clubs.
- Occupation clubs such as Future Mechanics, Future Businessmen, Future Homemakers, and so forth.
- Neighborhood groups or clubs.
- Church or religious youth groups.
- Groups like the YMCA, YWCA, Hi-Y, Boys' Club, Boy Scouts.
- Are there any other groups you belong to that I haven't mentioned? [Open-ended]

Appendix C

Question Wording for PSM Scale - PSM from Cooperative Congressional Election Survey

Interest in Public Affairs

How interested are you in politics and current affairs? Very much, somewhat, not much, or not sure?

Political Knowledge

Based on the overall results of the election, which party will have the most seats after the newly elected U.S. House of Representatives is sworn in?

Based on the overall results of the election, which party will have the most seats after the newly elected U.S. Senate is sworn in?

Campaign Activities

During the past year did you donate money to any candidates for office or to political party committees?

During the past three months, did you try to persuade anyone else to vote or how to vote?

Organizational Membership

Are you a member of any of the following organizations? Please check all that apply:

- American Automobile Association
- American Association of Retired Persons
- National Rifle Association
- League of Women Voters
- Parent-Teacher Association or Parent Teacher Organization
- Veterans of Foreign Wars
- American Legion
- Sierra Club
- NARAL
- National Right to Life
- Christian Coalition of America

Appendix D

Question Wording for PSM Scale - PSM from the American National Election Survey

Interest in Public Affairs

Some people seem to think about what's going on in government and public affairs most of the time, whether there's an election going on or not. Others aren't that interested. Would you say you follow what's going on in government most of the time, some of the time, only now and then, or hardly at all?

Political Knowledge

Now we have a set of questions concerning various public figures. We want to see how much information about them gets out to the public from television, newspapers and the like.

- The first name is Al Gore. What job or political office does he now hold?
- William Rehnquist?
- Boris Yeltsin?
- Newt Gingrich?

Campaign Activities

We would like to find out about some of the things people do to help a party or a candidate win an election.

- During the campaign, did you talk to any people and try to show them why they should vote for or against one of the parties or candidates?
- Did you wear a campaign button, put a campaign sticker on your car, or place a sign in your window or in front of your house?
- Did you go to any political meetings, rallies, speeches, dinners, or things like that in support of a particular candidate?
- Did you do any (other) work for one of the parties or candidates?
- During an election year people are often asked to make a contribution to support campaigns. Did you give money to an individual candidate running for public office?
- Did you give money to a political party during this election year?

Organizational Membership

There are many types of organizations, groups, and charities that people might be involved with. We're interested in what kinds of groups you might be involved with. I'm going to read you a list of different types of organizations. For each type, could you tell me the name or names of the organizations you are involved with?

- Our first type of group is labor unions. Are you involved with any labor unions?
- How about other organizations associated with your work such as a business or professional association or a farm organization?
- Veterans organizations such as the American Legion or the Veterans of Foreign Wars?
- Are you a member of a local church, parish or synagogue group?
- How about other organizations such affiliated with your religion besides that, such as the Knights of Columbus or B'nai B'rith, or a bible study group?
- Organizations for the elderly or senior citizens?

- Organizations representing your own particular nationality or ethnic group such as the Polish-American Congress, the Mexican-American Legal Defense, or the National Association for the Advancement of Colored People?
- Organizations mainly interested in issues promoting the rights or the welfare of women -- an organization such as the National Organization for women, or the Eagle Forum, or the American Association of University Women?
- Organizations active on any particular political issues such as the environment or abortion (on either side), or gun control (on either side) or consumer's rights, or the rights of taxpayers or any other issues?
- Nonpartisan civic organizations interested in the political life of the community or nation --such as the League of Women's Voters or a better government association?
- Organizations that support general liberal or conservative causes such as Americans for Democratic Action or the Conservative Caucus?
- Organizations active in supporting candidates for elections such as a political party organization?
- Groups in which children might participate, such as Girl Scouts, 4-H, youth sports leagues such as soccer or Little League?
- Literary, art, discussion or study groups?
- Hobby clubs, sports or country clubs, bowling leagues, or other groups for leisure time activities?
- Associations related to where you live --neighborhood or community associations, homeowners' or condominium associations, or block clubs?
- Service or fraternal organizations such as the Lions or Kiwanis or a local women's club or a college fraternity or sorority?
- Organizations that provide services in such fields as health or service to the needy-- for instance, a hospital, a cancer or heart drive, or a group like the Salvation Army that works for the poor?
- Educational institutions-- local schools, your own school or college, organizations associated with education such as school alumni associations or school service organizations such as the PTA?
- Organizations that are active in providing cultural services to the public --for example, museums, symphonies, or public radio or television?
- Support or self-help groups such as AA or Gamblers' Anonymous?
- Any other organizations? Which ones?

Appendix E - Question Wording for PSM Scale - PSM from the National Civic and Political Health Survey

Interest in Public Affairs

Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election or not. Others aren't that interested. Do you follow what's going on in government and public affairs most of the time, some of the time, rarely, or never?

Political Knowledge

- How much of a majority is required for the US Senate and House to override a presidential veto?
- Which of the following best describes who is entitled to vote in federal elections?
- Name one of the president's cabinet secretaries and identify the department they represent
- Five countries have permanent seats on the Security Council of the United Nations. Name one.

Campaign Interest

- When there is an election taking place do you generally talk to any people and try to show them why they should vote for or against one of the parties or candidates, or not?
- Do you wear a campaign button, put a sticker on your car, or place a sign in front of your house, or aren't these things you do?
- In the past 12 months, did you contribute money to a candidate, a political party, or any organization that supported candidates?

Organizational Membership

- About how many groups would you say you belong to?

Appendix F: Validated Questions Used to Measure PSM, Grouped by Motivation

	Perry 1996	Vandenabeele 2008	Kim et al. 2013
Rational	<p>Politics is a dirty word</p> <p>The give and take of public policy-making does not appeal to me</p> <p>I don't care much for politicians</p>	<p>Politics is a dirty word</p> <p>The give and take of public policy-making does not appeal to me</p> <p>I don't care much for politicians</p>	<p>I admire people who initiate or are involved in activities to aid my community</p> <p>It is important to contribute to activities that tackle social problems</p> <p>Meaningful public service is very important to me</p> <p>It is important for me to contribute to the common good</p>
Affective	<p>I am rarely moved by the plight of the underprivileged</p> <p>Most social programs are too vital to do without</p> <p>It is difficult for me to contain my feelings when I see people in distress</p> <p>To me, patriotism includes seeing to the welfare of others</p> <p>I seldom think about the welfare of people whom I don't know personally</p> <p>I am often reminded by daily events about how dependent we are on one another</p> <p>I have little compassion for people in need who are unwilling to take the first step to help themselves</p> <p>There are few public programs that I wholeheartedly support</p> <p>Making a difference in society means more to me than personal achievements</p> <p>I believe in putting duty before self</p> <p>Doing well financially is definitely more important to me than doing good deeds</p> <p>Much of what I do is for a cause bigger than myself</p> <p>Serving citizens would give me a good feeling even if no one paid me for it</p> <p>I feel people should give back to society more than they get from it</p> <p>I am one of those rare people who would risk personal loss to help someone else</p> <p>I am prepared to make enormous sacrifices for the good of society</p>	<p>Fighting poverty is an important duty of government</p> <p>Without solidarity, our society is doomed to fall apart</p> <p>To me, helping people who are in trouble is very important</p> <p>Much of what I do is for a cause bigger than myself</p> <p>Making a difference in society means more to me than personal achievements</p> <p>I feel people should give back to society more than they get from it</p> <p>I am prepared to make enormous sacrifices for the good of society</p>	<p>I feel sympathetic to the plight of the underprivileged</p> <p>I empathize with other people who face difficulties</p> <p>I get very upset when I see other people being treated unfairly</p> <p>Considering the welfare of others is very important</p> <p>I am prepared to make sacrifices for the good of society</p> <p>I believe in putting civic duty before self</p> <p>I am willing to risk personal loss to help society</p> <p>I would agree to a good plan to make a better life for the poor, even if it costs me money</p>

<p>Normative</p>	<p>It is hard for me to get intensely interested in what is going on in my community I unselfishly contribute to my community Meaningful public service is very important to me I would prefer seeing public officials do what is best for the whole community even if it harmed my interests I consider public service my civic duty</p>	<p>Serving the public is an important drive in my daily life To me, serving the public interest is more important than helping individual persons To me, before anything, good civilians should think of society</p>	<p>I think equal opportunities for citizens are very important It is important that citizens can rely on the continuous provision of public services It is fundamental that the interests of future generations are taken into account when developing public policies To act ethically is essential for public servants</p>
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Michael Edward Bednarczuk

POSITIONS

2017-2018 Assistant Professor and Chair of Public Administration
Belhaven University

EDUCATION

University of Wisconsin-Milwaukee - Ph.D in Political Science, 2018
Thesis: A Horizontal and Vertical Analysis of Public Service Motivation

Stony Brook University – MA in Political Science, 2011

Ohio University – MA in Political Science, 2010

Miami University – BA in Political Science, 2009

PUBLICATIONS

Bednarczuk, Michael. 2018. “Ideology, Vote Choice, and Bureaucracy Across Time: A Longitudinal Test of the Bureau Voting Model in the United States.” **Administration & Society** 50(6): 812-834.

Bednarczuk, Michael. 2018. “Identity and Vote Overreporting by Bureaucrats: Implications for Public Service Motivation.” **American Review of Public Administration** 48(2): 148-158.

Bednarczuk, Michael. 2017. “Bureaucrats and Voter Turnout Across Time: A Further Examination of the Bureau Voting Model.” **Public Administration Quarterly** 41(2): 386-421.

Bednarczuk, Michael. 2017. “Boehner Versus The GOP: Examining the 2015 Vote for Speaker of the House.” **Journal of Ideology** 37(1).

Norpoth, Helmut, and Michael Bednarczuk. 2012. “History and Primary: The Obama Re-election.” **PS: Political Science & Politics** 45(4): 614–617.

TEACHING

Administration of Financial Resources - Belhaven University, Summer 2018 (Graduate)

Research Methods - Belhaven University, Fall 2017-Spring 2018 (Graduate)

Research Capstone - Belhaven University, Fall 2017-Spring 2018 (Graduate)

Introduction to Political Science - University of Wisconsin-Milwaukee, Fall 2015-Spring 2016 (Undergraduate)

American Public Policy - University of Wisconsin-Milwaukee, Fall 2014 - Spring 2015 (Undergraduate)

Public Administration – Muskingum University, Spring 2012 (Undergraduate and Graduate)

Voters and Elections – Stony Brook University, Summer 2011 (Undergraduate)

Public Policy Analysis and Evaluation – Stony Brook University, Fall 2011 (Teaching Assistant)

CONFERENCE PAPERS

Bednarczuk, Michael. (September 2016). “A Multi-Decade Longitudinal Analysis of Public Service Motivation in the US.” Paper presented at the Annual Meeting of the American Political Science Association, Philadelphia, PA.

Bednarczuk, Michael. (April 2015). “Which Horses are in the Race?: An Exploration of Presidential Primary Candidate Fields.” Paper presented at the Annual Meeting of the Midwest Political Science Association, Chicago, IL.

Bednarczuk, Michael and Yamil Velez. (September 2012). “Tweeting the Election: A Preliminary Examination of the Twindex.” Paper prepared for the Annual Meeting of the American Political Science Association, New Orleans, LA.

Norpoth, Helmut and Michael Bednarczuk. (September 2012). “History and Primary: The Obama Re-Election.” Paper prepared for the Annual Meeting of the American Political Science Association, New Orleans, LA.

Bednarczuk, Michael, Matthew Harris and Helmut Norpoth. (April 2012). “Perceptions of

Parties and Candidates in the 2008 US Presidential Election.” Paper presented at the Annual Meeting of the Midwest Political Science Association, Chicago, IL.

Norpoth, Helmut and Michael Bednarczuk. (September 2011). “The Primary Model: Beyond New Hampshire.” Paper presented at the Annual Meeting of the American Political Science Association, Seattle, WA.

ACADEMIC APPOINTMENTS AND AWARDS

Distinguished Dissertation Fellowship - August 2016-May 2017

- **Awarded to only twelve people across the university annually, this award recognizes and supports the most academically excellent Ph.D. students who have achieved dissertator status**

Distinguished Graduate Student Fellowship - August 2013-July 2014

- **Recognizes and supports the most academically excellent master’s and doctoral students**

Chancellor’s Fellowship - University of Wisconsin-Milwaukee - August 2012-August 2014

- **Used by the university to attract talented, high-quality graduate students**

UWM Political Science Grant for ICPSR - June 2013-July 2013

- **Used to further the statistical training of graduate students**

Wilder Crane Research Assistant (for Thomas M. Holbrook) - August 2012-July 2013

- **Assisted the Wilder Crane Professor in gathering and synthesizing data**

MEDIA

Work featured in **The Washington Post**

- “Wonkbook,” September 3, 2011. <http://tinyurl.com/mu8r7bv>

- “Wonkblog,” August 31, 2012. <http://tinyurl.com/lghbtnj>

- Balz, Dan. “Romney or Obama? Political scientists make their predictions.” The Washington Post. September 30, 2012. <http://tinyurl.com/9oauelp>

Work featured on Fox News (“Fox News Live,” September 4, 2011)

SERVICE TO THE DISCIPLINE

Reviewer - **Journal of Public Administration Research and Theory; The American Review of Public Administration; Political Research Quarterly; American Public Policy: Promise and Performance (10th Edition); International Review of Administrative Sciences**