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The Impact of Contextual Political Factors on Personnel, Rulemaking, and Partisanship

by

Emily H. Moore

A dissertation presented to
The Graduate School
of Washington University in
partial fulfillment of the
requirements for the degree
of Doctor of Philosophy

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Table of Contents

List of Figures	v
List of Tables	vii
Acknowledgments	ix
Abstract	xii
Chapter 1: Introduction	1
Chapter 2: Polarization, Excepted Appointments, and the Administrative Presidency	5
2.1 Political and Policy Importance of Excepted Appointees	7
2.2 The Politics of Presidential Nominations.....	11
2.3 Toward a Theory of Schedule C Appointments and Senate Conflict	12
2.4 A Brief Overview of the Schedule C Selection Process.....	16
2.5 Data: Schedule C Appointees 1998-2013	19
2.5.1 Key Variables.....	21
2.5.2 Controls	23
2.6 Results	24
2.7 Conclusion.....	27
2.8 References	30
2.9 Appendix	34
Chapter 3: Public Participation in Rulemaking 2004-2016	38
3.1 Public Participation in Rulemaking.....	40
3.2 A Brief Overview of the Regulatory Process	42
3.3 Contextual Factors and Regulatory Participation.....	45
3.3.1 Expertise and Congressional Salience.....	45
3.3.2 Rule Significance	48

3.3.3	Legal Deadlines.....	49
3.4	Public Comments 2004-2016.....	50
3.4.1	Variables and Model	53
3.5	Results	56
3.6	Conclusion.....	60
3.7	References	62
Chapter 4:	Personnel, Politics, and Policymaking.....	66
4.1	How Presidents Choose Appointees.....	68
4.2	Appointment Dynamics in the Obama and Trump Administrations	72
4.3	The Model.....	75
4.3.1	Staffing, Policy Change, and Policy Outcomes.....	81
4.3.2	Presidential Incentives.....	84
4.4	Conclusions	91
4.4.1	Where to Go from Here	92
4.5	References	94
4.6	Distribution of Policy Outcomes.....	98
4.7	Proofs of Numbered Results	100
Chapter 5:	Party Systems and Legislative Behavior: Evidence from the	
	Antebellum U.S. Congress	108
5.1	Political Parties and Legislative Behavior.....	110
5.1.1	Political Parties in the Early U.S. Congress	112
5.1.2	Institutions and Party Development in the Antebellum Congress.....	114
5.2	Data	117
5.3	Results	121
5.4	Conclusion.....	135
5.5	References	136
5.6	Appendix	142
Chapter 6:	Federal Register Data Documentation	153
6.1	Collection Method.....	154
6.2	Data Concerns	155

6.3	Variable Descriptions/Codebook	156
6.4	Simple Statistics and Plots.....	159
6.5	References	163
6.6	Appendix	164
6.6.1	Rule File Example.....	164
6.6.2	Python Code.....	169

List of Figures

Figure 2.1:	Number of Schedule C Appointees and New Hires Over Time.	20
Figure 2.2:	Number of Schedule C Appointees Over Time in Selected Agencies. .	22
Figure 2.3:	Results of Schedule C Model.	26
Figure 2.4:	Histogram of Number of Schedule Cs in Agencies.	34
Figure 3.1:	Rule Significance Categories.	55
Figure 4.1:	Number of Schedule C and Non-Career SES Appointees 1998-2017. .	74
Figure 4.2:	Effect of Staffer Quality on the Distribution of Promoted Policies: $\beta_s > \beta_A$	79
Figure 4.3:	President's Net Expected Payoff as a Function of Agency Ideological Bias, β_A	87
Figure 4.4:	President's Net Expected Payoff as a Function of Agency Policy Breadth, σ_A	88
Figure 4.5:	Optimal Policy Breadth, σ_A , for Aligned Staffer vs. Staffer Quality, q_s	90
Figure 4.6:	President's Net Expected Payoff as a Function of Agency Productivity, m_A	90
Figure 4.7:	Effect of Staffer Quality on the Distribution of Promoted Policies	99
Figure 5.1:	Structural Breaks in Partisanship and Legislative Voting Behavior	129
Figure 5.2:	Variation across Parties in the U.S. House, 1789-1861.	134
Figure 5.3:	Distribution of Agreement Scores, 1789-1861	149
Figure 5.4:	Fit Statistics for Breakpoint Model in the House	150
Figure 5.5:	Fit Statistics for Breakpoint Model in the Senate	151
Figure 5.6:	Regional Influences on Voting Behavior in the U.S. Congress, 1789-1861	152

Figure 6.1: Number of All Final Actions and Final Rules Over Time. 159

List of Tables

Table 2.1:	Negative Binomial Regression Model with Clustered Standard Errors.	25
Table 2.2:	Results Using Divided Government instead of Distance Between Party Medians.....	35
Table 2.3:	Zero-Inflated Negative Binomial Regression Model with Clustered Standard Errors	36
Table 2.4:	Results Using Clinton Lewis Scores During the Bush Years	37
Table 3.1:	Average Comments and Total Rules in the Regulations.gov Comments Data	51
Table 3.2:	Comment Model Results	57
Table 5.1:	Legislative Voting Behavior in the U.S. Congress, 1789-1861	123
Table 5.2:	Periods of Legislative Voting Behavior in the U.S. Congress.....	131
Table 5.3:	Legislator-Pairs by Congress and Chamber	142
Table 5.4:	Number of Roll Call Votes by Congress and Chamber	143
Table 5.5:	Legislative Voting Behavior in the U.S. Congress, 1789-1861, Alternative Party Measure.....	144
Table 5.6:	Legislative Voting Behavior in the U.S. Congress, 1789-1861, Alternative Region Measure.....	145
Table 5.7:	House Summary Statistics	145
Table 5.8:	Senate Summary Statistics	145
Table 5.9:	Legislative Voting Behavior in Congress, 1789-1861.....	146
Table 5.10:	Legislative Voting Behavior in the U.S. Congress: Alternative Dependent Variable.....	147
Table 5.11:	Legislative Voting Behavior in the U.S. House, 1789-1861: Including Lagged DW-NOMINATE Scores	148

Table 6.1:	Table of the top 20 individual rule producers 2000-2015.	161
Table 6.2:	Rule Action Types	162
Table 6.3:	List of 25 Most Common Subjects Tagged in Rules	163

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Emily H. Moore

Washington University in Saint Louis

May 2018

For Jared.

ABSTRACT OF THE DISSERTATION

The Impact of Contextual Political Factors on Personnel, Rulemaking, and Partisanship

by

Emily H. Moore

Doctor of Philosophy in Political Science

Washington University in St. Louis, 2018

Professor John Patty, Chair

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The context in which an institution operates structures the way political actors respond to it. Broadly, this dissertation explores these contextual variables. The first chapter provides an overview of the arguments I will make in the dissertation and the results I find. The second chapter considers political context as it relates to excepted political appointees. I argue that presidents utilize Schedule C appointees more frequently in ideologically proximate agencies and when ideological conflict in the Senate is high. I show some evidence for these arguments using an original OPM dataset on Schedule C appointees from 1998 through 2013. The third chapter shifts to a discussion of public participation on federal rulemaking activity. Looking at an original dataset of all regulations on regulations.gov from 2004-2016, I show preliminary evidence that several contextual political factors impact the number of comments agencies receive on their rules. Agency expertise requirements and rules with legal deadlines are negatively correlated with comments while congressional attention on the producing agency and more significant rules tend to receive greater public attention. In the fourth chapter, John Patty and I consider the presidential appointment decision. We present a theory of bureaucratic staffing which allows staffers to affect agency policy priorities. To our knowledge, it is the first paper to consider the impact of structural characteristics like agency

productivity and policy breadth on the appointment decision. The fifth chapter, coauthored with Jon Rogowski, examines the relationship between partisanship and voting behavior in the antebellum Congress. We show that the effect of partisanship varied over time in conjunction with institutional changes. Partisanship was stronger in the House than the Senate and the relationship exhibited three distinct periods. The sixth chapter provides an overview of an original dataset of all final rules produced by agencies from 2000 through 2014. These data are unique in that previous studies utilize the Unified Agenda, an incomplete data source. I overview the purpose of these data, describe the variables, and show a number of interesting descriptive statistics.

Chapter 1

Introduction

Broadly, my work focuses on the contextual political variables that impact institutions—whether how agency and rule characteristics affect public participation in rulemaking or how historical events impact the development of the relationship between partisanship and voting behavior over time.

One hallmark of this dissertation project is the introduction of new and original data to study foundational questions about responsiveness and accountability in the federal bureaucracy. As polarization and gridlock have become the norm in American politics, presidents have increasingly sought alternatives to the legislative process. This focus has made research on non-legislative policymaking like agency rulemaking all the more important. Most of my research explores these alternative policymaking sources. My research on personnel advances our understanding of how presidential administrations utilize appointments to pursue policy, especially in ways that are less politically accountable.

Chapter 2, which is published in *Presidential Studies Quarterly*, considers the relationship between congressional polarization and the use of Schedule C appointees, a type of political appointment which is exempt from advice and consent and traditional competitive hiring processes. The essay has two main findings. First, presidents utilize Schedule C

appointees in larger numbers when they encounter greater polarization in the Senate. I argue that Schedule C appointees are not substitutes for agency heads, but they can provide greater support to understaffed agencies. Thus, presidents are able to support the agency's work when it is more difficult to staff agencies through advice and consent. Second, I find that presidents tend to utilize Schedule C appointees more frequently in ideologically proximate agencies. I argue that presidents utilize Schedule Cs in ideologically proximate agencies because they are typically advisers best able to support bureaucrats already in alignment with the president's plans for an agency.

My research on agency rulemaking in chapter 3 considers how agency design and structure affect the tendency for those agencies to receive public feedback in the notice and comment period. Because bureaucrats are unelected, critics have long labeled the federal bureaucracy undemocratic. Yet unlike legislation, bureaucrats are required by law to solicit public feedback on their policymaking activities. For this project, I collected an original dataset including every final regulation available for comment between 2004 and 2016, more than 20,000 regulations in total. From these data we learn that rules produced by more expert agencies tend to receive fewer comments overall, implying that removal from political overseers is associated with less public interaction. In addition, I find some evidence that more significant rules and rules from agencies that receive greater congressional attention receive more public comments.

Chapter 4 is co-authored work with John Patty. Besides collaborative discussions on the direction of the paper, my contribution to the paper included writing most of the section on how presidents choose appointees and all of the section on appointment dynamics as well as presenting the work at the American Political Science Association. This chapter explores both ideological and non-ideological factors impacting the appointment decision. We model the president's appointment decision based on the characteristics of appointees and agencies given that appointees can affect the policy priorities (and by extension, the output)

of agencies. This model is unique in that it is the first theory of political appointments to demonstrate how agencies' structural characteristics might affect appointment incentives when the number of appointees is limited. We arrive at several important findings. We find that presidents should consider appointee ideology, but that the quality of a staffer matters more than ideology when staffers are of low quality. When presidents are appointing a high quality staffer, they should consider the agency's ideological bias and the staffer's quality. As an example, leftist presidents should appoint high quality leftist staffers to more rightist agencies than lower quality staffers. We also show that presidents should place misaligned staffers in less productive agencies than aligned staffers. In addition, we show that presidents will sometimes prioritize lower quality but more ideologically similar staffers over higher quality but less aligned staffers when appointees are able to influence agency policy priorities.

Chapter 5 is co-authored work with Jon Rogowski. Apart from our collaborative discussions, I researched a subset of our various historical sources on party development. I wrote a function to generate the agreement scores and set up and ran most of the various models (including the breakpoint models) and created versions of most of the plots. This chapter focuses on party development in Congress before the Civil War. Though it does not focus on the bureaucracy, this article also considers contextual factors impacting political institutions. Considerable literature has documented the emergence of parties in the United States, but few have considered the evolution of partisanship in the antebellum period once it was established. Using roll call votes from the first 36 Congresses, we establish a few findings. First, we show that partisanship was significantly related to voting behavior in both chambers through the period, but this relationship was about 50 percent stronger in the House than in the Senate. We also find three distinct party regimes across the period. In short, we show that the relationship between partisanship and voting behavior was more variable and evolutionary than previous accounts might suggest.

Chapter 6 details my collection of all final rules in the Federal Register from 1998 through 2014. I first explain the motivation behind the data collection, the advantages of the dataset, a description of the variables included, and any work that needs to be done to clean the data. It also includes several descriptive tables to give a sense of what these data look like. The Federal Register data will be a valuable source of information for future researchers because it is a superior data source compared to previous data sources on rulemaking.

Chapter 2

Polarization, Excepted Appointments, and the Administrative Presidency

Few topics have received as much popular and scholarly attention as the rise of congressional polarization and its impact on government performance. Scholars and journalists have often blamed partisan conflict within Congress for low congressional approval ratings (Binder 2003), understaffed courts and agencies (Binder and Maltzman 2009; Viser 2013), and an inability to act on key issues (Weisman 2013) or simply run the day-to-day operations of the government (Helderman 2011). Within the Senate, critics have long blamed the filibuster for fueling obstructionist tendencies and holding up meaningful reforms (Binder and Smith 1997; Smith 2014). In 2013, Democrats resorted to using the nuclear option following frequent, prolonged Republican obstruction via filibuster on the president's lower-level judicial nominees. Frustration with this obstruction was especially apparent prior to the November 2016 election as Republicans in the Senate refused to consider Merrick Garland's Supreme Court nomination. In an era of increasingly polarized congressional parties, presidents have faced greater obstacles to filling key vacancies in both the executive branch and in the judiciary.

Given the rise of congressional polarization, presidents have sought alternative ways of filling government positions. One quarter of recent presidents' appointments to the federal bureaucracy have failed to receive Senate confirmation (O'Connell 2015) and non-cabinet vacancies may take anywhere from two months to over one year to fill (O'Connell 2008). Thus, it is not surprising that presidents have sought flexibility in the use of their appointment powers, especially by exercising greater control over lower level appointees through the Office of Presidential Personnel (Lewis 2008; Patterson and Pfiffner 2001). Another way presidents have attempted to gain control is through the use of recess appointments (e.g. Black et al. 2007, 2011; Hein 2008; Miller 2015). Yet due to considerable constraints on their use, recess appointments provide only a partial solution to the president's problem of staffing and more generally, governing the bureaucracy, when the Senate is polarized (Ostrander 2015). Indeed, more than two-thirds of the president's available political appointees are not subject to Senate confirmation but nonetheless perform important functions within the government (Government Accountability Office 2012).

Though they lack the glamour and intrigue of their Senate-confirmed counterparts, excepted appointees allow the president to continue to staff agencies when conditions in the Senate make it difficult to do business. Moreover, excepted appointees tend to take on added responsibilities during leadership vacuums. Thus, I argue that as partisan conflict within the Senate increases, presidents will increasingly utilize excepted authorities. I also argue that due to the unique nature of Schedule C appointees specifically, they are more likely to be placed in ideologically similar agencies. To test these relationships, I introduce a new dataset of all Schedule C appointments from 1998 to 2013. These data show that presidents use Schedule C appointments more frequently when conflict within the Senate is high and that presidents tend to place Schedule C appointees in ideologically similar agencies. These results show that Schedule C appointees offer presidents flexibility to fill administrative positions quickly (particularly in ideologically aligned agencies) and provide an important means of

achieving their policy goals when conditions within the Senate make using the appointment power more difficult.

2.1 Political and Policy Importance of Excepted Appointees

Excepted appointees are those appointees who do not undergo competitive hiring processes or advice and consent. Most serve as advisers situated in between the top-level advice and consent officials and lower-level careerists with excepted non-career Senior Executive Service (SES) appointees senior to Schedule Cs. SES and Schedule C appointees are explicitly political and Schedule C appointees are specifically selected for “confidential and policy-determining” reasons. I describe some history of this selection process in a later section. Because they mainly serve as advisers to presidents and cabinet officials or as liaisons between the agency and other stakeholders, they remain largely invisible to the public.

Excepted appointees often serve in key policy-relevant capacities and have occasionally been the subject of media attention. For example, Linda Tripp and Monica Lewinsky were both Schedule C appointees in the Pentagon. Elizabeth Warren served as Assistant to the President and Special Adviser to the Secretary of the Treasury under Secretary Geithner so she could create the Consumer Financial Protection Bureau.¹ Phillip Cooney served in an excepted position as Chief of Staff at the Council of Environmental Quality and purposefully edited expert-prepared government climate reports to downplay scientific climate change findings (Revkin 2005a; 2005b). In short, several newsworthy officials have served as excepted appointees. Though some high-profile excepted appointees do occasionally end up in the spotlight, they are not the only excepted officials that have policy relevance. For example, one

¹According to Lewis (2011), Warren had been appointed as a “czar” because Obama believed Warren could never survive advice and consent. Warren herself (2014) confirms this notion and states Obama had also refused to appoint her as head of the Consumer Financial Protection Bureau via recess appointment because of the outrage it may have caused.

Schedule C appointee in the Obama administration’s USDA, Jamal Habibi, described himself as a “point-man” for international trade. Though he was a low-ranked “special assistant,” he described himself as spending a significant amount of time communicating with stakeholders and advising senior officials on trade agreements. A Schedule C appointee who served as chief of staff in the same department (and who preferred not to be named) held a variety of other tasks in the department. He briefed deputy undersecretaries on policy, filled in for them in their absence, controlled their schedules, approved rules created by career staff, and resolved disputes between political and career officials. This appointee was also entrusted with deciding how and when critical loan rate information would be released to the public.²

In addition to their role as policy advisers and gatekeepers between top political and career staff, excepted appointees can also be used to support cabinet secretaries in new agencies before the remaining career staff and second-level PAS appointees come to office. For example, President Bush filled a myriad of excepted positions in the DHS headquarters in the first few months of the newly created Department of Homeland Security.³ According to OPM, in 2003, forty percent of the DHS headquarters was staffed via Schedule C with 12 Schedule C appointees arriving in January of 2003. The proportion of Schedule Cs in the agency declined over time as the agency became established. Importantly, the president was able to fill these positions with the people of his choosing and do so without the fanfare that typically accompanies high-profile nominations.

Despite the usefulness of excepted appointments, few studies have included, much less focused on them. This is surprising given that “arguably the most important trends in

²I provided two examples of Schedule C appointees, but they can perform a wide array of services within agencies. Some serve as scheduling assistants while others serve as speech writers or important policy advisers. For example, according to the Plum Book, Schedule C appointees serve as senior advisers to secretaries and undersecretaries in cabinet agencies, White House offices like OMB or independent agencies like the Small Business Administration, the Export-Import Bank or even NASA. They serve as policy analysts in agencies like the EPA or the cybersecurity office of Homeland Security.

³I thank an anonymous reviewer for pointing out that agencies that were in other cabinet departments that moved into DHS (like FEMA and the Coast Guard) largely retained their previous staff and hiring practices.

the administrative presidency include increases in lower-level appointees and more careful selection of appointees at these lower levels” (Lewis and Waterman 2013, 37). In one treatment of excepted appointees, Lewis and Waterman (2013) focus on Senior Executive Service (SES) and Schedule C appointees to the Department of Labor. They present evidence that Schedule C appointees are significantly more likely than non-career SES and PAS appointees to have worked for a political party or have other political experience and also more likely than PAS appointees to have worked on a presidential campaign.

Schedule C positions provide an opportunity for less experienced, young partisans to gather valuable government experience (Bonafede 1987; Ingraham, Thompson and Eisenberg 1995; Lewis 2008). Schedule C jobs allow presidents to develop a pool of individuals who may someday become non-career SES or eventually PAS appointees in their own or a future co-partisan’s administration. Bonafede (1987) confirms that Reagan used this strategy in his administration, writing that Reagan specifically created a cadre of young conservatives throughout low-level positions that would be promoted later within the administration. In fact, Nathan (1983) praised Reagan’s administrative strategy as effective in pursuing his policy agenda because Reagan selected loyal cabinet officials, sub-cabinet officials, SES and Schedule C appointees. Nathan specifically praised Reagan’s attention to Schedule C appointees, which previous presidents had frequently ignored. Though cabinet officials played a role in selecting the excepted political appointees, Reagan insisted that the White House be consulted on all SES and Schedule C appointees. This administrative strategy is consistent with the general pattern presidents have taken toward expanding and protecting their administrative powers.

Scholarly evidence suggests that presidents think carefully about hiring decisions at both the top and lower levels and significant work is dedicated to unearthing this process (e.g. Hollibaugh, Horton, and Lewis 2014; Lewis and Waterman 2013; Patterson 2008; Patterson and Pfiffner 2001; Tolchin and Tolchin 2010). For example, much scholarly work is devoted to the president’s tradeoff between competent “experts” and political loyalists (e.g. Hecla

1977; Hollibaugh 2015; Lewis 2008; Moe 1985; Moynihan and Roberts 2010; Parsneau 2013). Additional work considers the politicization of presidential appointments (e.g., Burke 1992; Hart 1995; Hecló 1975; Lewis 2005, 2008, 2009; Wayne et al. 1979). In particular, Lewis (2008) points out that politicization is “a vital tool for controlling the bureaucracy” (6). Presidents have several means of politicizing. For example, presidents can replace career managers with political appointees, layer the career manager to limit careerist influence, or utilize reduction-in-force techniques. In addition to these strategies, presidents can also add ministerial staff like special assistants. Lewis points out that these special assistants (usually Schedule Cs) have limited formal authority, but they “acquire substantial informal authority as experts, gatekeepers and public spokespeople” (36). Lewis goes on to argue that “Schedule C appointees gain power from being primary advisors to higher-level appointees and from speaking with the implied authority of the appointee” (37). He also notes that staff like these are sometimes tasked with special projects and budget or legal review. Thus, excepted appointees fit into the larger phenomenon of politicization, which presidents have often utilized in an attempt to gain political control.

Presidents care about all of these staffing decisions—whether at the top of an agency or at the mid and lower levels—because they recognize the importance of personnel for pursuing their agendas. In an interview, President Ford argued for greater appointment power at the lower levels of the bureaucracy, stating, “if he [the president] cannot reach into the bowels of a department his decisions way up at the top will seldom be adequately implemented out in the grass roots” (Lewis 2008, 57). As Moe (1987, 489) described, “The president’s personnel decisions are strategically important to the realization of his interests as a political leader, and the White House jealously guards its powers and flexibility in putting them to best use.” Thus, presidents care about expanding not just the scope but also the flexibility of their appointment powers. Indeed, Lewis (2011) shows that presidents bolster their administrative control by increasing the number of appointments available to them and

expanding appointment power in key management positions. Though they are lower profile than advice and consent officials, presidents can use these positions to fill agencies with key personnel. Studying these unique and relatively invisible appointees provides important insight into bureaucratic management, especially when presidents face challenges in the advice and consent process.

2.2 The Politics of Presidential Nominations

Given the difficulties of the advice and consent process, it is easy to imagine why presidents desire flexibility in their appointment powers. The delay and failure of presidential nominations in the Senate have only worsened in recent years. The length of time to confirmation has increased substantially since the 1980s (O’Connell 2015). Obama’s nominees waited twice as long to be confirmed as Reagan’s. Furthermore, over 25 percent of presidential nominations failed since the 1980s with greater failure rates for Bush and Obama than their predecessors. Reagan appointed 86 percent of his top officials in his first year, but Obama could not complete two-thirds (Pfiffner 2015). The increasing failures and confirmation delays mean an increase in vacancies, which happen often given the relatively short amount of time appointees stay in their positions (O’Connell 2008; Pfiffner 2015). Recently, top positions in cabinet and executive agencies are vacant or filled by an acting official 15 to 25 percent of the time (O’Connell 2008).

Partisan conflict within the Senate seems to exacerbate these problems (McCarty and Razaghian 1999). At times, a minority in the Senate may oppose the president’s nominees for political reasons or the Senate may be too polarized to agree on a nominee. Indeed, senators work to strategically delay nominations by, for instance, refusing to hold hearings on or vote to confirm a nominee for so long that the president is eventually forced to withdraw the nomination (Bond, Fleisher and Krutz 2009; Ostrander 2016). Moreover, partisan Senators may use nominees as bargaining chips in political conflicts. Kenneth Kopocis, a nominee

for the EPA, had waited more than 1,000 days because Republicans did not support one of the EPA’s proposed rules and used his nomination as leverage to revoke it (Eilperin 2014). The nuclear option implemented in 2013 did not seem to solve the problem. While these filibuster reforms decreased wait times for judicial nominees, they increased wait times for other nominees (O’Connell 2015).

Lengthy confirmation ordeals can hinder the president’s agenda (Lewis 2011; McCarty and Razaghian 1999). The long and uncertain confirmation process limits the president’s options and deters talented people from working in the administration (Eilperin 2014). Alternatively, the excepted service allows the president to select talented individuals who are unwilling or unable to undergo advice and consent, co-partisans who are not yet experienced enough to serve as top-level officials, and more diverse individuals.⁴

2.3 Toward a Theory of Schedule C Appointments and Senate Conflict

In November 2014, President Obama nominated Antonio Weiss, head of investment banking for independent financial management firm Lazard, as the Undersecretary for Domestic Finance. Led by Elizabeth Warren, a number of progressive Democrats in the Senate opposed Weiss’ appointment. To avoid a confirmation showdown, Obama withdrew the nomination and instead appointed Weiss to an excepted position as Counselor to the Secretary of the Treasury. While he had fewer formal responsibilities as Counselor than he would have as Undersecretary, Weiss affected policy immediately in a short-staffed agency instead of risking a lengthy and potentially unsuccessful confirmation battle.

⁴For example, data show that SES and Schedule C appointees are more likely to be women than PAS appointees. The Washington Post, using Ann O’Connell’s data, reported that of the 80 PAS appointees who responded to their survey, over 35 percent were women. By comparison, as of 2016, over half of all Schedule C appointees in the Obama Administration were women and 48 percent of non-career SES appointees were women. Obama similarly appointed a high number of racial minorities to excepted positions. According to OPM’s Fedscope tool, in September 2016, 37 percent of non-career SES appointees and 56 percent of Schedule Cs were a racial or ethnic minority.

This episode illustrates one of the important aspects of excepted appointees that make them powerful weapons in the president's administrative arsenal. Because excepted appointees do not undergo advice and consent nor competitive hiring processes, they offer the president incredible versatility. In particular, they allow presidents to staff agencies when conditions within the Senate make confirmations and the pursuit of presidential agendas more difficult.

I theorize that presidents normally view their subordinates as teams made up of members who have different functions. That is, cabinet officials and agency heads work with second-level PAS appointees, SES appointees, Schedule Cs and career staff to keep the executive branch running smoothly. As such, excepted appointees in a well-functioning executive branch complement the functions performed by PAS appointees. At the beginning of their terms, presidents work with the Office of Presidential Personnel (PPO) and their cabinet secretaries and draw upon party and campaign knowledge to identify possible candidates for excepted positions. In deciding where to put appointees within the bureaucracy, PPO takes into account the president's interest in the agency, its policy importance, and the need to do favors for campaign workers and donors. When presidents observe Senate conflict, however, they face two staffing problems. They seek to overcome these problems, as described in the previous sections, by relying on more flexible aspects of their appointment powers.

First, as described in the previous section, Senate polarization is related to difficulty in filling vacancies. While cabinet officials are quickly confirmed, the next level of appointees may take from a few months to more than a year to select, vet, and confirm if they are confirmed at all (O'Connell 2008). This leaves presidents and their cabinets without advisers that provide vital information to the department and president. Moreover, delay can lead to a lack of political staff who help keep the day-to-day operations of the government running—approving regulations produced by career staff and advising them on future regulations or conveying the president's message to stakeholders. Second, Senate polarization disrupts a president's

legislative agenda. This frustration results in presidents pursuing administrative strategies. This administrative agenda also requires political staff to advise and approve rulemaking activity and to work with interest groups in pursuing regulations. This need for staff exists outside of any vacancies which may exist within the department.

In the former case, presidents may directly circumvent advice and consent as with the Warren and Weiss examples (among other so-called “czars”), appointing individuals they do not believe will make it through Senate confirmation. However, this need not be the president’s motivation. Presidents may simply wish to provide more support to agencies as they wait for leadership by assigning them to existing staff or they may appoint officials a majority of members prefer but cannot confirm due to Senate polarization. Moreover, second-level PAS appointments, when vacant, are frequently filled by an acting career official.⁵ Presidents prefer to have these career officials supported by loyal political supporters, even if indirectly. Advice and consent vacancies allow excepted appointees to exercise greater influence over policy than they normally would (O’Connell 2010). Antonio Weiss benefited from just this phenomenon. After losing out on the undersecretary position and becoming an appointed adviser, Antonio Weiss took on many responsibilities he would have held as undersecretary including heading a meeting with Wall Street officials and serving as an adviser to Treasury Secretary Lew on issues such as debt management and global market developments. Due to several high-level vacancies in the Treasury department, Weiss’s role seemed to take on added importance (Katz 2015). Indeed, former Treasury officials

⁵Traditionally, cabinet officials have some say over the SES and Schedule C staff under them. For this reason, the Schedule Cs I interviewed indicated that they believed many excepted appointees would leave if a cabinet secretary departed the agency. They indicated that this would not be the case for second-level PAS appointees, however. Most delay time in appointment and confirmation of PAS appointments occurs in this second-level. These undersecretaries and deputy undersecretaries with whom Schedule Cs work directly are positions frequently filled by acting career officials when they are vacant.

suggested that given his excepted position and these vacancies, Weiss was likely to take on an “influential, if low-profile, function shaping policy” (Katz 2015).⁶

Given the increasing difficulty of passing nominees through the advice and consent process and the increasing length of time to confirmation for nominees that are confirmed, I expect the president to find a way of augmenting (but not replacing) advice and consent. Excepted appointees are one means of doing this. They serve as important advisers that can communicate and ensure the president’s wishes are followed by career staff when advice and consent officials are in short supply. They are also frequently hired to serve in liaison agencies where they communicate between agencies and congressional staffers and interest groups. Moreover, Schedule C appointees specifically allow presidents not just to fill a position with who they want, but allows them to create the position they want as well. Thus, while excepted appointees are always useful to the president, I expect the president to utilize the flexibility of Schedule C appointees more frequently when conflict within the Senate is high. Since polarization within the Senate can occur even when the president and Senate majority share the same party, I expect to see this relationship regardless of which party controls the Senate.

H1: Presidents will utilize greater numbers of Schedule C appointments as conflict within the Senate rises.

There are limitations on the president’s use of the excepted appointment power, however. Excepted appointees typically lack the statutory authority given to Senate-confirmed officials. As such, excepted appointees are imperfect substitutes for high-level officials. While this is true of excepted officials more generally, it is especially true of Schedule C appointees. Because of this, I argue that Schedule C appointees are used more frequently in ideologically

⁶Conversations with Schedule C appointees confirm this notion. These appointees suggested that when vacancies occurred among top officials they took on a more active role in the agency.

proximate agencies because the president places them where their advice is most likely to be heeded.

Schedule C appointees must have a Senate-confirmed (PAS) appointee, a career or non-career Senior Executive Service (SES) appointee or fellow Schedule C appointee as their immediate supervisor (House of Representatives 2012, 203). Schedule Cs may serve in a variety of different roles, but they tend to be advisers who do not have the authority to decide policy directions on their own. Rather, they work for and advise the people who do have the ability to decide an agency's direction. Presidents realize that giving valuable political advisers to agency decision-makers inclined to listen to their advice is more profitable than assigning them at random or worse, to agencies with decision-makers who actively disregard them. Importantly, appointees both to PAS and non-career SES are at least partly chosen by someone other than the president; the Senate has a say on who gets appointed to PAS appointments and competitive service processes make career SES staff less politicized. Schedule C authority allows presidents to cultivate advisers absent these limitations. As such, I expect Schedule C appointees to be utilized in greater numbers in agencies ideologically aligned with the president.

H2: Presidents will utilize greater numbers of Schedule C appointees in ideologically proximate agencies.

2.4 A Brief Overview of the Schedule C Selection Process

President Eisenhower created Schedule C appointments when he first reached office. According to Gailmard and Patty (2012), Eisenhower instituted Schedule C because he was faced with the political realities of being the first Republican to win the presidency in twenty years (leaving him with few trusted advisers) and because the post-World War II era left him

with an expansive administrative state, which reached further into the economy and society than had previously been conceived. Schedule C was designed to exist between other classes of appointments—appointees beholden directly to the president, but who did not undergo advice and consent or competitive service processes. Today, Schedule Cs make up about 37 percent of the president’s total political appointments (Government Accountability Office 2012).

Most jobs in the bureaucracy are filled through a competitive process open to the public just as industry jobs are filled. Exemptions from the competitive process occur for a variety of reasons.⁷ Earlier I described Schedule C appointees as being excepted for political reasons. OPM specifically describes two conditions when Schedule C authority is permitted: when “the work of the position can be performed successfully only by someone with a thorough knowledge of and sympathy with the goals, priorities, and preferences of an official who has a confidential or policy determining relationship with the President or the agency head” or when “the position involves making or approving substantive policy recommendations” (U.S. House of Representatives 2012, 203).

Presidents control political appointments (including Schedule C) via the Office of Presidential Personnel (or previously, the Presidential Personnel Office/PPO). Patterson and Pfiffner (2001) report that while modern cabinet secretaries often brag about the level of personnel control afforded to them, the reality is that PPO retains considerable control over who can and cannot serve. With respect to Schedule Cs, this White House selection process has particularly evolved. Schedule C appointees were traditionally chosen by and served at the pleasure of agency heads and cabinet secretaries. However, believing that his predecessors had left too much control over personnel to agency heads, Reagan instituted White House control over SES and Schedule C appointees, which has largely continued (Patterson and

⁷Some excepted service appointments are reserved for positions for which the Office of Personnel Management (OPM) does not or cannot provide a test or standard (professionals such as lawyers are one example). Other excepted service appointments are reserved for those with disabilities or are set aside for interns.

Pfiffner 2001). That said, the president's personal involvement in selection differs by position and agency. Lewis (2008) notes that agencies off the president's agenda tend to be staffed at PPO's discretion. As a result, they are often filled with appointees PPO was obligated to place such as campaign donors or managers (Patterson and Pfiffner 2001). As such, individual presidential priorities and agency dynamics play a role in the number and type of appointees an agency may receive.

Often PPO's appointee selections are based on demonstrated loyalty to the president. For example, under President George H. W. Bush, George W. Bush was placed in charge of a special committee tasked with making a list of those who had demonstrated loyalty to the president over his entire career. Chase Untermeyer, head of PPO, then used this list to fill the allocated positions of Schedule C appointees in various departments and agencies (Patterson and Pfiffner 2001). However, the process for selecting Schedule Cs does exhibit some variation by president. Jamal Habibi, the Schedule C appointee in Agriculture I described before, had worked on the Obama re-election campaign, but his selection process was competitive. He was chosen as part of a large interview day, which included many campaign workers among others with experience in government and industry. Though many of those who received the Schedule C jobs had worked on the campaign, the competitive process suggested that other criteria were also utilized. For example, Jamal Habibi's educational background was in international affairs and he worked on international trade issues. Others were chosen because of their connections with the Secretary of Agriculture. The chief of staff I had spoken with served as a career appointee and had worked for a senator. He was sought out by the Obama administration because of the connections and expertise he had developed in these positions along with his demonstrated loyalty to the Democratic party. Thus, while loyalty to the president and the administration's goals are an important criterion for becoming a Schedule C appointee, campaign work is not the only way to demonstrate this loyalty, and while Schedule C appointees have frequently been connected with patronage in the literature

(Lewis 2008; Lewis and Waterman 2013), this does not preclude Schedule C appointees from having important policy roles or from having an effect on the agency itself.

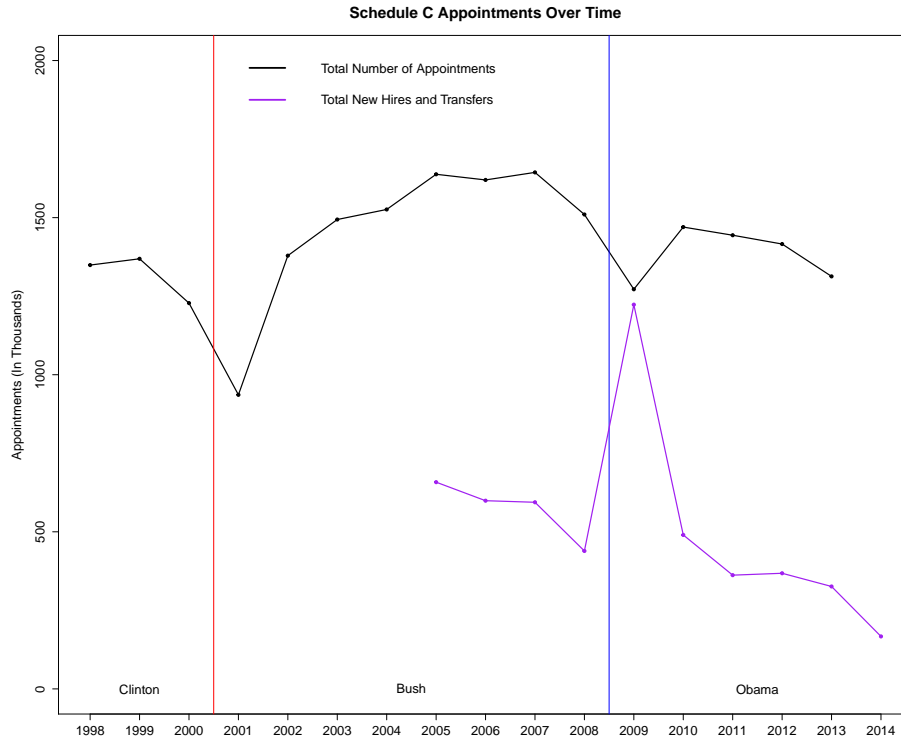
2.5 Data: Schedule C Appointees 1998-2013

Throughout the article I have considered both excepted appointees generally and Schedule C appointees specifically. Even though they are just one of several types of excepted appointment, I focus on Schedule C appointees for the analysis because they are the most flexible type of excepted appointee. Because presidents can create and dissolve these positions when and where they please, the Schedule C appointee is ideal for testing theories about how the president uses the flexibility of the appointment power to overcome the challenges of Senate polarization. The federal employment and accessions data on the appointees come from the FedScope tool through the Office of Personnel Management. From the FedScope tool, I collected static data on employment statistics for September 1998-2013. These data are a picture-in-time of employment in federal agencies, representing the total employment to each included agency for September of the given year. These data show counts of every type of non-PAS appointment in every agency through the time period representing the more than 30 million total employments and over 22,000 Schedule C appointments that occurred from 1998 through 2013.

Over the period, there were 692 agency units, some of which were created or disbanded during the time period. These are counted based on which agencies have unique agency codes (given by OPM) in the data. In order to include agency ideology as a control and to create a more readily understandable level of aggregation, I collapsed the data into 59 units to match the Chen and Johnson (2015) ideology scores.

Figure 2.1 displays the number of Schedule C appointees from 1998-2013 and the number of Schedule C accessions (new hires and transfers) from 2005-2013. Unfortunately, FedScope does not currently report accessions data prior to FY2005.

Figure 2.1: Number of Schedule C Appointees and New Hires Over Time.



Overall, President Bush used Schedule Cs more frequently than either Clinton or Obama. In general, the number of Schedule Cs decreases and then increases when a new president takes over. As is visible, the number of accessions in 2009, when Obama takes office, is extraordinarily high—almost matching the total number of appointees in that year. While there is always some turnover during a presidential transition, this turnover is higher for political positions. The number of Schedule C accessions as a percentage of Schedule C employees is typically between 20 and 35 percent. For the Obama transition, the number of accessions as percentage of employees was over 96 percent. This suggests that 96 percent of all appointees serving in 2009 were hired under Obama and were not holdovers from the Bush administration.

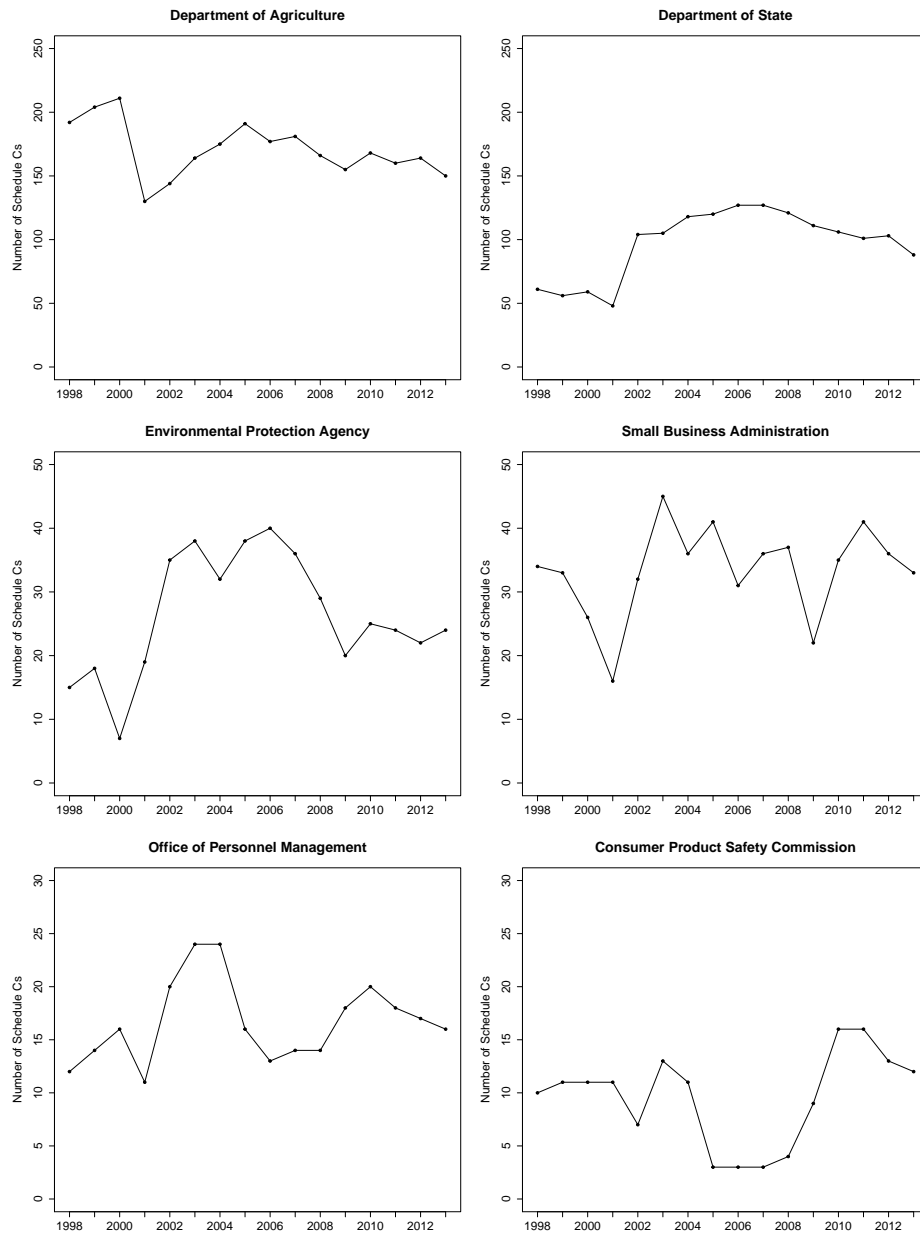
The outcome variable I use for the model is the number of Schedule C appointments in an agency in a given year. The number of Schedule C appointees in an agency-year ranges from 0 to 211. The mean number of appointees is about 25 with a standard deviation of about 37.

There is wide variation in the number of Schedule C appointees both within and across agencies over time. Figure 2.2 shows the pattern of Schedule C appointees in six selected agencies. As is visible, the Department of Agriculture and the State Department have a very large number of Schedule C appointees relative to the mean. Both of these departments had relatively stable levels of Schedule C appointees through the Bush and Obama administrations. The Department of Agriculture saw a decrease in appointees from Clinton to Bush while the Department of State experienced the opposite pattern. The EPA and Small Business Administration (in the second row of plots) had moderately larger numbers of Schedule C appointees than the average agency. The EPA saw a large increase in appointees under President Bush (reaching a high of 40 appointees) but higher levels under Obama than under Clinton (with a low of seven appointees). The Small Business Administration also experienced wide variation in its level of Schedule C appointees ranging from 16 to 45 appointees over the period. The Office of Personnel Management and Consumer Product Safety Commission had a moderately lower number of Schedule C appointees relative to the mean agency. However, these agencies still experienced variation. OPM had between 11 and 24 appointees over the period with higher levels between 2002 and 2005. The Consumer Product Safety Commission had between three and 16 appointees, hitting a low in Bush's second term and a high in the Obama administration.

2.5.1 Key Variables

Within-Senate Conflict is measured using the absolute common space distance between the median member of both parties in the Senate. This is a departure from some previous

Figure 2.2: Number of Schedule C Appointees Over Time in Selected Agencies.



literature, where divided government is frequently an independent variable. The distance between party medians has ranged from 0.72 to 0.98 between 1998 and 2000, with an average distance of .810. Distance Agency-President is measured as the absolute ideological distance

between an agency and the president. Agency Ideology is measured using common space ideal points created by Chen and Johnson (2015). The president's ideal point comes from the Poole and Rosenthal common space measures. The agency ideology scores are unique for each term from Clinton through Obama's first term based on federal employee campaign contributions. Importantly, these scores are scaled in common space, allowing for a comparison between the ideology of agencies and the president. Thus, the ideology measure is simply the absolute distance between an agency and the president for a given year. For example, observations in 1998, 1999, and 2000 are based on Chen and Johnson's ideal point estimates for Clinton's second term and Poole and Rosenthal's estimates for Clinton. Similarly, 2001-2004 is based on the ideal point estimates for Bush's first term, 2005-2008 on his second and so on.⁸ Chen and Johnson report 79 agencies scores. Due to differences in data coverage, the models cover 59 agencies and departments.

2.5.2 Controls

I control for several potential confounding factors, including agency size, which is measured as the total level of employment (in thousands) in an agency as reported by Fedscope. I expect agency size to be positively related to numbers of Schedule Cs because these agencies have more employees overall. I also include an indicator for the first (2001 and 2009) and last (2000 and 2008) years of a presidency because overall levels of employment are lower just before and after presidential transitions. I also include a measure for the distance between the president and the 60th senator and indicators for each president. Based on the figure, President Bush appears to have used a higher number of Schedule Cs than his Democratic colleagues, so I expect indicators for both Obama and Clinton to be signed negatively.

⁸Chen and Johnson did not provide estimates for 2013, so I used the estimates from Obama's first term.

2.6 Results

The results of the negative binomial regression model with standard errors clustered on agency are reported in Table 2.1. The results support the hypothesis that presidents utilize Schedule C appointees more frequently as Senate polarization rises. As the distance between the party medians in the Senate increases, the number of Schedule C appointees also rises.⁹

These main results for within-Senate conflict are visualized in Figure 2.3. These plots show the predicted number of Schedule Cs for all values within the range of the variable of interest for each president, holding all other variables at their mean or default values. The shaded regions are the 95 percent confidence intervals around the prediction. Bush and Clinton’s confidence intervals overlap, showing that for the within-Senate conflict variable, the two presidents were not significantly different from each other. However, Bush utilized statistically larger numbers of Schedule C appointees than Obama, all other variables constant. To put these results into more substantive terms, an agency in the Bush administration could expect to receive 46 appointments with all variables set to their mean or reference levels. A one standard deviation increase in conflict within the Senate would result in an agency going from 46 to 62 (a difference of 16) Schedule C appointees. This is a substantively large result considering that the mean number of Schedule C appointees in all of the included agencies in all years was about 25 (with the 3rd quartile around 35 appointees).

In addition to support for the main hypothesis, I also found support for the secondary hypothesis about Schedule C appointees and agency ideology. Presidents utilize Schedule C appointees more frequently in ideologically proximate agencies, reflecting Schedule C’s nature

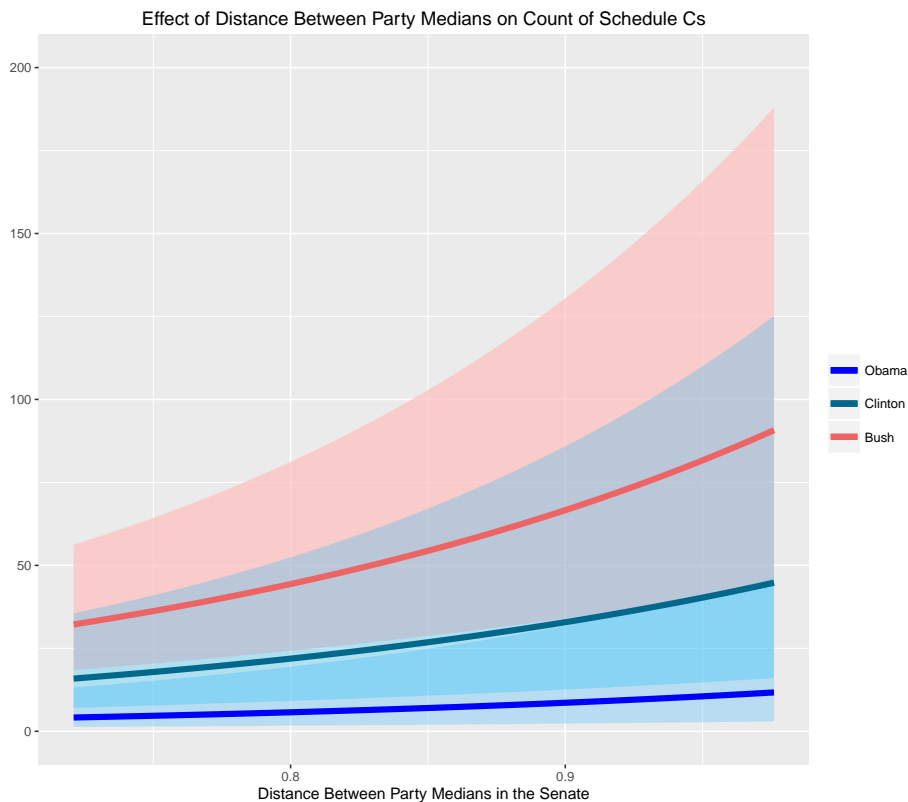
⁹This result is robust to specification as a zero-inflated negative binomial model, using an indicator for divided government instead of the distance between party medians (with and without a measure for the distance between the president and the filibuster pivot), and by using an alternative measure of agency ideology. Results also hold when running the model on just Obama and Bush’s first terms and eliminating each year in turn from the model.

Table 2.1: Negative Binomial Regression Model with Clustered Standard Errors.

<i>Dependent variable: Number of Schedule C Appointees</i>	
Distance Agency to President	-2.765* (0.682)
Distance Between Party Medians	4.064* (1.181)
Distance President to 60th Senator	-1.390* (0.359)
Size (Thousands)	0.010* (0.002)
First Year of Presidency	-0.337* (0.053)
Last Year of Presidency	-0.026 (0.023)
Obama	-2.048* (0.462)
Clinton	-0.707* (0.212)
Constant	2.443* (0.425)
N	854
Agencies	59
Log pseudolikelihood	-3292.8257

*p<0.05

Figure 2.3: Results of Schedule C Model.



as advisers. Moving an agency one standard deviation closer to Bush ideologically would result in an increase from 19 to 41 Schedule C appointees on average.

The distance between the president and the 60th senator is negative and significant, indicating that greater distances between the president and the 60th senator are associated with fewer Schedule C appointees in agencies. At first glance, this would seem to run counter to the idea that presidents utilize Schedule C appointees as a way to augment advice and consent. After all, we might expect conflict between the Senate and the president to result in the president utilizing Schedule C authority more frequently. However, while the Senate does not have a say on individual excepted appointments, Congress does control the Schedule C authority as a whole. In the 1980s and 1990s, presidents had used Schedule C authority

to create details to the White House within individual departments and agencies. The Government Accountability Office released several reports urging OPM to establish guidelines that would prohibit this practice. OPM refused to do so and Congress ultimately passed a law prohibiting the use of Schedule Cs as White House details (Government Accountability Office 1992). Presidents, while given considerable leeway in the use of Schedule C appointees, must nonetheless be careful not to go too far. Much as presidents must take care not to overstep their bounds with executive orders lest they be curbed by Congress or the courts, presidents also must take care not to abuse their Schedule C authorities. Moreover, presidents need not disagree with the 60th Senator in order to face the difficulties of Senate conflict.

When Congress is plagued by greater levels of polarization, the president can continue to staff (especially ideologically similar) agencies through other means by increasing the number of Schedule C appointees. Considering the increasing levels of congressional polarization and worsening conditions for achieving legislation that modern presidents face, Schedule Cs may become increasingly important to the president's agenda as time goes on. Given unfavorable conditions for staffing in the Senate, increasing wait times for advice and consent, and a shrinking pool of talent for traditional appointees because of these problems, the ease with which Schedule Cs can be appointed certainly makes them a desirable tool. This practice has important implications for public management. Schedule C appointees are, on average, younger and less experienced than other appointees, yet the use of Schedule C appointees to offset the polarization dilemma affords them increased influence over policy outcomes.

2.7 Conclusion

When presidents reach office, they are met with the difficulty of managing an expansive bureaucratic state. Increasing polarization can have significant negative ramifications on government performance—not just in terms of the laws Congress passes, but also the ability

of government agencies to carry out tasks. Because of the increasing length of time to confirmation and rising failure rates for advice and consent appointees, agencies are frequently left without important staff and presidents are left without trusted policy advisers and advocates. These vacancies often result in diminished agency capacity.

Faced with difficulty pursuing their agendas with Congress, presidents have found administrative strategies for solving major problems. Nathan (1983) points out that Nixon planned a sweeping administrative strategy in response to his legislative struggles before he resigned. Reagan too achieved success pursuing administrative strategies in addition to legislative ones. Like Nixon, Obama came to office seeking a legislative agenda and ended up with an administrative one (Appelbaum and Shear 2016). Administrative strategies require agency personnel to carry them out—both people writing and implementing regulations and those advising the president on policy matters or advocating for the president’s policies with Congress, industry, and the public. Presidents work with the Senate to fill leadership positions in hundreds of agencies, but there are thousands of political appointee positions to fill. With the increasing focus on administrative strategies in addition to or even at the expense of legislative ones, it is no surprise that the president would find means of staffing agencies without relying on an increasingly polarized Senate. Though excepted appointees are an imperfect solution, they nonetheless offer presidents a means to fill positions in understaffed agencies with the advisers of their choosing and most importantly, keep agencies moving.

Importantly, these results indicate just how necessary it is for scholars of bureaucratic management to consider a wider range of appointment types in their theories of staffing. Given how many appointees are not subject to Senate approval and given that these appointees are often involved in important decision-making within agencies, it is surprising they have not been given more scholarly attention. These results have merely skimmed the surface of how Schedule C appointees might be studied, however. Little is known, for example, how appointees like these might be related to tangible bureaucratic outputs such as rulemaking

activity or how they are affected by transitions in agency leadership. These results also have important implications for the administrative presidency. As presidents increasingly seek control over the expansive bureaucratic state, pursuing further control over presidential personnel, we may see excepted appointees take on added importance.

These results do have some limitations, however, which could be improved in future research. First, the data for Obama and Clinton's terms are truncated, with only the last three years of the Clinton administration and the first five of Obama's administration. Covering a wider timeframe in the future would provide more variation in political structure and control. In addition, 1998-2013 is a highly polarized time period. In less-polarized eras, the nature and use of Schedule C appointees would likely be different. Future work should also go further to account for how the underlying structure of agencies affects presidential personnel decisions, especially with regard to excepted appointees. For example, some agencies are on the president's agenda and others are not. Understanding these agency dynamics will help shed more light on the strategic use of excepted appointees. Finally, significant qualitative work (e.g. Patterson and Pfiffner 2001) has focused on the importance of PPO for the selection and placement of political appointees, and future work should incorporate these insights into new empirical models (especially as PPO interacts with agency structure).

As Lewis and Waterman (2013) state, it is important to "lift the veil from the president's invisible appointments" (53). A deeper understanding of how excepted appointments fit into the broader bureaucratic system and how they are affected by the outside winds of political forces is an important step in developing a more comprehensive understanding of federal bureaucracy. This study contributes to the lifting of the veil by better understanding how these appointees can be used as part of the president's administrative strategy.

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2.9 Appendix

The following tables and figures were included in the published version of this article as an appendix.

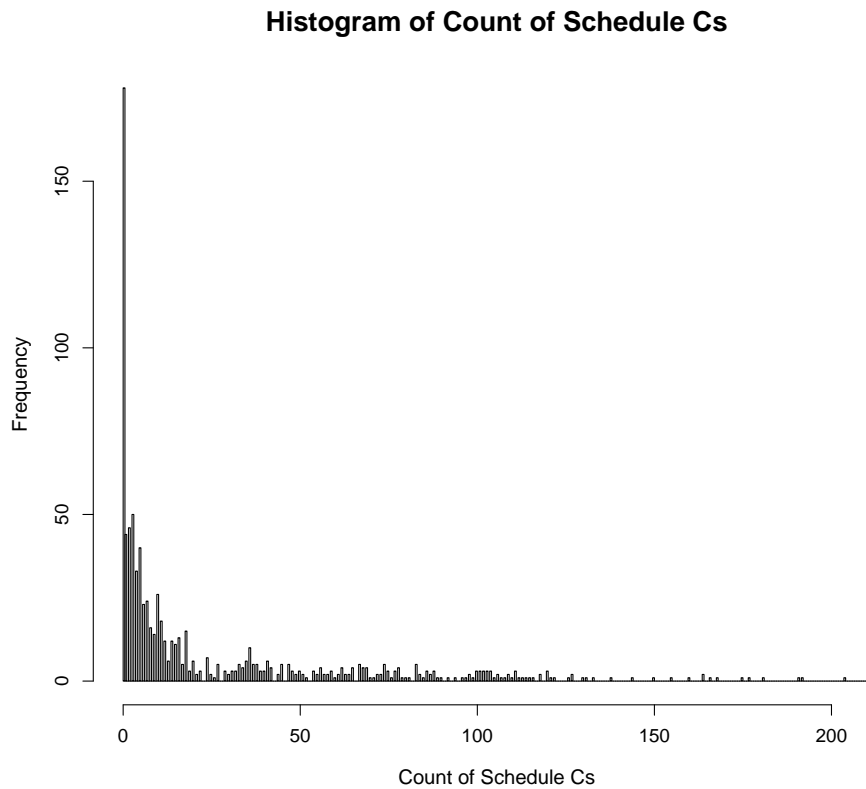


Figure 2.4: Histogram of Number of Schedule Cs in Agencies.

Table 2.2: Results Using Divided Government instead of Distance Between Party Medians

<i>Dependent variable: Count of Schedule Cs</i>		
	(1)	(2)
Distance Agency to President	-2.712* (0.666)	-2.655* (0.655)
Divided Government	0.361* (0.090)	0.071* (0.029)
Distance President 60th Senator	-2.476* (0.619)	
Size (Thousands)	0.010* (0.004)	0.010* (0.004)
First Year of Presidency	-0.425* (0.071)	-0.361* (0.056)
Last Year of Presidency	-0.101 (0.022)	0.030 (0.030)
Obama	-1.918* (0.416)	-1.250* (0.313)
Clinton	-1.264* (0.313)	-0.928* (0.257)
Constant	6.396* (0.967)	4.447* (0.561)
N	854	854
Agencies	59	59
Log pseudolikelihood	-3293.6942	-3295.6629

*p<0.05

Table 2.3: Zero-Inflated Negative Binomial Regression Model with Clustered Standard Errors

<i>Dependent variable: Number of Schedule C Appointees</i>	
Distance Agency to President	-2.554* (0.589)
Distance Between Party Medians	3.897* (1.007)
Distance President to 60th Senator	-1.527* (0.329)
Size (Thousands)	0.007 (0.004)
First Year of Presidency	-0.312* (0.055)
Last Year of Presidency	-0.035 (0.026)
Obama	-1.885* (0.393)
Clinton	-0.692* (0.191)
Constant	2.811* (0.376)
Inflation Model (Logit)	
Size	-0.274* (0.104)
Constant	-0.703 (0.519)
N	854
Agencies	59
Log pseudolikelihood	-3246.847

*p<0.05

Table 2.4: Results Using Clinton Lewis Scores During the Bush Years

<i>Dependent variable: Count of Schedule Cs</i>	
	(1)
Agency Ideology	-0.202 (0.188)
Distance Between Party Medians	2.243* (0.616)
Distance President 60th Senator	-4.514* (0.616)
Size (Thousands)	0.017* (0.005)
Constant	4.140* (0.875)
N	609
Agencies	77
Log pseudolikelihood	-2110.5142

*p<0.05

Chapter 3

Public Participation in Rulemaking 2004-2016

Rulemaking is one of the most important and prolific forms of policymaking in American government. As Kerwin and Furlong (1992) put it, “few developments in the way Americans govern themselves have proven more significant than the rise of rulemaking [because it] has become the most common and instrumental form of lawmaking” (113-114). In this unproductive era for Congress, regulations are becoming an increasingly relevant aspect of policymaking, whether Obama’s use of executive powers to work around a hostile Congress or Trump’s renewed interest in de-regulation. After all, public policy is more often created through regulation than through legislation. In 2001, Congress passed 24 “major” statutes while government agencies promulgated nearly three times the number of “significant” rules at 70 (O’Connell 2008, 892). Put another way, while federal agencies have promulgated between 2,500 and 4,500 regulations each year for the last two decades, Congress has not passed more than 300 public laws since 2000 (Resume of Congressional Activity).

Despite the large volume of regulations produced each year, rules produced by agencies typically receive much less fanfare than laws passed by Congress. In an article about interest groups upsetting Dodd Frank regulations, journalist Haley Sweetland Edwards refers to the rulemaking process as “shadowy, Byzantine” and “the seventh circle of bureaucratic hell”

(Edwards 2013). She argues that many activists and especially citizens work hard to see legislation passed in Congress but often fail to participate in the regulatory process. As such, rulemaking often gets a reputation for being confusing at best and deceptive at worse. However, some scholars think of rulemaking as refreshingly democratic (as quoted in Yackee and Yackee 2006). After all, the Administrative Procedure Act requires agencies to notify the public of their rules, give adequate time to comment, and then respond in their final rule to the substance of those comments. Moreover, it appears that agencies desire comments (Regulations.gov 2017) and that policies change in response to comments (e.g. Yackee and Yackee 2006). Despite the importance of regulation and the significance of public comment within that process, we know little about the contextual factors related to participation in rulemaking. In particular, we know little about how agency features like expertise as well as rulemaking characteristics like significance impact the level of participation a rule will receive.

To better understand the relationship between these contextual factors and public participation in the rulemaking process, I utilize a new, original dataset comprised of comment counts on nearly 21,000 final rules promulgated between 2004 and 2016. These comment counts represent the 24 million comments provided to government agencies over the period. I show that agencies with greater expertise requirements receive less public participation on average while agencies with greater congressional salience receive greater participation. I also show that rule significance and legal deadlines are associated with more and less participation respectively. This study offers a first step forward at understanding public commenting behavior and has important implications for studies of agency design, bureaucratic management, and responsiveness.

3.1 Public Participation in Rulemaking

The federal rulemaking process offers a unique opportunity for the public to provide input on government action. Unlike Congress or the president, the Administrative Procedure Act requires agencies to provide notice of and solicit public feedback about their policymaking efforts. In addition, agencies must respond to citizens' substantive concerns. For this reason, and despite the fact that the civil servants who oversee it are unelected, the rulemaking process has sometimes been called "refreshingly democratic" (as quoted in Yackee and Yackee 2006). Of course, while required to solicit and respond to public feedback, agencies generally are not required to substantially alter drafted regulations on the basis of it. As a result, criticisms against the federal regulatory process take a variety of forms—some blaming bureaucrats, others blaming interest groups. Much of the previous research on public participation in rulemaking studies who participates and who is influential in the process, with a particular focus on whether or not special interests exert a disproportionate amount of influence.

Scholars disagree about whether or not interest groups (especially corporate interests as opposed to public interests) actually have undue influence over the content of regulations. Some researchers argue that most influence over the regulatory process occurs outside the traditional notice and comment framework. For example, interest groups may employ former bureaucrats, increasing their access with current agency leadership through the revolving door. Similarly, interest groups may meet with regulators privately before a Notice of Proposed Rulemaking is even published, allowing these special interests to monopolize agency resources (Wagner, Barnes, and Peters 2011). Elizabeth Warren noted that Wall Street interest groups made up 93 percent of meetings with federal regulators as they considered how to implement the Volcker Rule in Dodd Frank (Warren 2016). Apart from the revolving door and informal meetings, groups may skip agencies altogether and lobby the executive branch directly through

OMB. Haeder and Yackee (2015) show that groups can be influential over the content of regulations coming out of regulatory review through their OMB lobbying efforts.

Because of potential influence at other points in the process, some studies suggest that commenting behavior generally does little to influence agency rulemaking or that business interests have no undue influence (e.g. Magat, Krupnick, and Harrington 1986; Nixon, Howard, and DeWitt 2002; West 2004) despite the fact that business interests tend to be better represented in comments than non-business interests (Golden 1998). Some anecdotal evidence suggests that regulators focus on more technically astute comments and ignore more simple value judgments even when they are numerous. For example, in a National Park Service rule concerning jet skis, the overwhelming number of comments (7,300 out of 7,600) supported a full ban of jet skis and opposed the rule (Mendelson 2011). The National Park Service chose to focus on other concerns rather than address the overwhelming desire to ban jet skis. Others suggest that influence occurs when there is a strong consensus but not at other times (Golden 1998). Some studies find that comments do matter regularly and often favor business interests (e.g. McKay and Yackee 2007; Yackee 2006; Yackee and Yackee 2006). Yackee (2006) looks at 1,444 comments on 40 rules and finds that interest group participation in rulemaking alters the content of final regulations. Building on this, Yackee and Yackee (2006) look at 1,700 comments on 30 rules. They find that business participants in rulemaking (but not non-business participants) can influence the content of regulations. They also find that as the proportion of business commenters increase, business influence also increases.

A handful of studies consider counts of comments rather than rule content. One of the few studies of rulemaking volume that currently exists (Balla and Daniels 2007) studies the volume of comments on 500 Department of Transportation rules but does so for the purpose of assessing the effect of online rulemaking. They find that participation did not change much before and after the Department of Transportation's online rule system was

implemented. Balla (2000) also considers comment volume but as a case study of a single rule to determine whether “losers” from legislation comment at greater rates on regulation implementing the legislation. They use a sample of 5,000 out of the 95,000 comments on that particular regulation and break down participation rates from various industries.

Despite a large number of studies on regulatory activity (e.g. Green and O’Connell 2009; Lavertu and Yackee 2014; O’Connell 2008; Potter 2017; Yackee and Yackee 2009; 2010; 2012) and several excellent empirical studies of public commenting discussed above, no studies to my knowledge have been able to provide a broad picture of public commenting on a wide swath of regulations from many different agencies. While the studies that focus on a few dozen rules have the benefit of going into great detail concerning the substance of public comments, we have very little idea of how comments on rules are distributed across agencies and how contextual factors influence participation in the process.

3.2 A Brief Overview of the Regulatory Process

Federal agencies administered legislation created by Congress even in the earliest years of the United States. Congress routinely relied on executive branch agencies to provide information, especially before the creation of standing committees (Gailmard and Patty 2012). The late 19th century into the turn of the 20th century began the “birth of modern regulation” (62). Agencies began publishing documents during this period laying out their standard operating procedures and responding to public concerns about abuses of power (Center for Effective Government 2017). Through the early decades of the 20th century, agencies (and newly created independent regulatory commissions) began to produce more and more regulations. As Congress tasked agencies with producing more regulations, it became difficult for regulated industries to keep up with current laws and practices. Arising out of conflict in the Schechter case which struck down the NIRA in 1934, the Federal Register Act of 1935 established the Federal Register as a single publication which would publish all of the regulations the

federal government had produced (Carey 2013). In 1946, the Administrative Procedure Act established a process for “informal” notice and comment rulemaking (Carey 2013). Since then, the regulatory process has undergone a number of important changes.

Many of the most politically important changes occurred during the Reagan administration. Reagan increased presidential control over the regulatory process by mandating the Office of Information and Regulatory Affairs (OIRA) review the regulatory actions of all agencies except independent regulatory commissions. It also required that agencies conduct impact analyses on “major” rules (those that have an expected impact on the economy of \$100 million or more). Reagan later required agencies to submit regulatory plans that covered current or planned significant regulations. President Clinton dialed back some of these measures by mandating that OIRA review only “significant” actions produced by the agencies—those which had a \$100 million impact, contradicted other agencies’ actions, or raised novel policy issues. Clinton also required that OIRA complete reviews within 90 days and identify the changes being made and any potential alternatives that might be produced. In 2002, President Bush instituted his e-rulemaking initiative which led to the eventual launch of regulations.gov in 2003 and in 2011, President Obama issued guidance to agencies requiring them to give timely public access to rules via regulations.gov (Carey 2013).

In general, the textbook regulatory process proceeds as follows: first, agencies publish a Notice of Proposed Rulemaking (NPRM) signaling that they plan to create a regulation. They publish this NPRM (or occasionally an advance NPRM or ANPRM) in the Federal Register. The public then has a period of time afterward to comment on rules (typically about 60 days). After this, the agency reads through comments. They choose whether to change the rule and then respond to the substance of criticism in the preamble of the final rule. Some rules may not go through notice and comment. For example, some minor rules that recur frequently are promulgated via direct final rules. These rules automatically remain in place but may be withdrawn if sufficient adverse comments are presented. Other rules

are substantively important but the agency believes the situation is an emergency which warrants an interim final rule. These rules may also be withdrawn or changed with adverse public comment. Most rules also undergo regulatory review with OMB through OIRA before an NPRM is released and again before a rule is finalized. Agencies designate a particular importance level to their rules and reports this to OIRA. OIRA may choose to amend the significance levels provided by the agency and then reviews rules that it believes to have a large economic impact (over \$100m) or large policy issue before an NPRM or final rule is released.¹⁰

The advent of e-rulemaking in January 2003 has increased interest in public participation in rulemaking. Specifically, scholars have considered how e-rulemaking might affect who participates and the level of participation as well as bureaucratic workload and policy outcomes. One argument is that e-rulemaking has made the regulatory process overly democratic, causing agencies to ignore technical comments in favor of simple tallies of value judgments from regular citizens in mass comment campaigns (Lubbers 2010). According to a small survey of federal regulators, rulemaking bureaucrats believe that, compared to the paper system, e-rulemaking is the same or easier for producing rules than their previous paper-based systems. They also reported an increase in the participation they received and generally felt that the system had provided more and better information to the public. On the other hand, regulators also reported a decrease in the proportion of substantively helpful comments and generally concluded that e-rulemaking helped the public much more than the agency. As one regulator put it “E-rulemaking is better at letting the public know what the agencies are doing than it is at providing thoughtful input into the decisions themselves” (Lubbers 2010). On the other hand, some research suggests e-rulemaking does not have a meaningful effect on participation (Balla and Daniels 2007; Coglianese 2006). For example,

¹⁰For more information on OIRA review, see Potter (2017) and Wiseman (2009).

Coglianesse (2006) argues that cognitive and motivational factors seem to impact citizen participation more than technological ones.

3.3 Contextual Factors and Regulatory Participation

Comments on federal regulations are important to study for several reasons. First, commenting on a regulation is the most obvious way to participate in the regulatory process, much as voting is the most obvious way to participate in an election and is therefore a natural point of interest. Second, though mixed, most studies detailed above find that comments affect policy at least some of the time. Third, even if one takes the view that agencies are ultimately self-interested, they stand to benefit from outside participation. Participation may reduce litigation and increase compliance (Coglianese, Kilmartin and Mendelson 2008). It gives agencies information not just about making better policy, but about the public's mood about the regulation. Despite this, we know very little about the contextual (and particularly, institutional) determinants of public participation. In this article, I consider two agency factors: expertise and congressional salience and two rule-level factors: rule significance and legal deadline.

3.3.1 Expertise and Congressional Salience

Expertise is one of the most important characteristics of bureaucracies. Indeed, agency expertise is the typical justification given for why policy implementers should remain separated from the electoral process. However, traditionally, expertise is a double-edged sword. On the one hand, expertise is needed to create and implement sound policy. On the other, expertise creates informational asymmetries that insulate bureaucrats from their political overseers and (indirectly) the public. Without the same information, members of Congress worry that bureaucrats lead them astray with ideologically biased information, counter to the interests of their constituents. Still, expertise, if it is exchanged for good policy, is worthy of congressional

investment. Indeed, Bawn (1995) shows that expertise leads to policy drift and Gailmard and Patty (2012) show that Congress is incentivized to invest in agency expertise in exchange for greater policy deference despite this policy drift because it can lead to better policy outcomes.

Notwithstanding the benefits of expertise, Congress must still overcome the problem of informational asymmetries if it wishes to maintain a happy constituency. Fire alarm oversight is one way to accomplish this (McCubbins and Schwartz 1984). The public has an opportunity to complain to Congress (usually through interest groups) about agencies and Congress has the opportunity to be the white knight coming to the rescue of voters. In general, if agencies both care about good policy and prefer not to undergo oversight (whether due to the opportunity costs of hearings, budget threats, or other sanctions), we should observe that agencies generally welcome feedback on their regulations. As a [regulations.gov](http://www.regulations.gov) report shows (Regulations.gov 2017), agencies do seem to value public feedback for several reasons. Apart from actually valuing the information the public can provide for making better policy and improving compliance, public feedback allows agencies to get a sense of the public's feelings about their regulations.

I argue that agency expertise, however, may actually be negatively related to the public feedback the agency receives on its regulations. In this case, I refer to expert agencies as agencies that are required to invest in expertise. That is, some agencies' authorizing statutes legally require bureaucrats to have qualifications for their jobs, a point which I will discuss at greater length in the data section. There are two main avenues by which agencies with unusual levels of expertise could end up with fewer comments on their regulations—one from the perspective of the agency (a top-down perspective) and one from the perspective of potential commenters (a bottom-up perspective).

From the agency-side, agencies with expertise requirements have less reason to seek public comments on their own relative to less-expert agencies. For one, expert agencies do not require as much information as less expert agencies so they do not need to rely on

public commenting as often for informational purposes. That is, they come to the game with information and require less effort to obtain it. In addition, because of the insulating aspect of expertise, Congress is less likely to incentivize agencies to solicit feedback. In other words, Congress may provide greater deference to expert agencies.

Finally, when agencies are filled with bureaucrats with professional accomplishments, they likely also have professional attachments to their disciplines outside of the agency. This allows them to solicit feedback outside of the typical notice-and-comment system.¹¹ It is worth noting, that many agencies have restrictions on “ex parte” meetings, or meetings between members of industry or the public, that take place outside of the typical process. The Administrative Conference of the United States (ACUS) released recommendations suggesting agencies publicize policies about ex parte lobbying, particularly in reference to lobbying that takes place following the issuance of the NPRM (Sferra-Bonistalli 2014). Two agencies with expertise requirements, the Federal Aviation Administration (FAA) and the U.S. Coast Guard (USCG), have restrictions on ex parte communications taking place after the NPRM. However, the report mentions a few useful tidbits of information about how agencies like these might seek feedback. For example, the report notes “in airspace related rulemakings, FAA will host ad hoc committee meetings and face-to-face meetings with public stakeholders in the early stages of proposal development, and then address all issues raised during these meetings in the NPRM.” Similarly, the ACUS report notes that the Coast Guard sometimes seeks out ex parte meetings with industry and other contacts to “get clarification of submitted comments or if it needs additional information” (Sferra-Bonistalli 2014).

From the commenter’s side, there are also several possible reasons for a negative relationship between comments and expertise requirements. First, agencies with expertise requirements work in more complex subject areas. The higher barrier to understanding the

¹¹It is worth noting that these contacts need not necessarily be secret or nefarious. Indeed, it may be that bureaucrats with professional contacts are better able to get into contact with stakeholders and encourage them to attend public meetings.

regulation limits those capable of participating meaningfully in regulation, shrinking the pool of possible respondents. Second, interest groups are often responsible for providing information to their members about both executive and legislative policymaking. Given the complex topics, there may be both fewer interest groups able to pass on this information to constituents and the ones that do exist may comment on behalf of constituents rather than encourage members to submit comments for themselves.

This mixture of disincentive for people to comment based on a lack of expertise or experience on their own, disincentive for expert agencies to seek public comment on their own, and disincentive for Congress to encourage agencies to seek the comments will amount to a reduction in the number of comments in these agencies relative to less expert agencies. This argument also has implications for the level of congressional salience of an agency. Insofar as agencies with greater expertise are better at escaping congressional ire, we might expect agencies that receive greater congressional attention are incentivized to seek out public feedback. Moreover, congressional salience may well mean the agency is more salient to interest groups and the public as well. Thus, we would expect greater participation in salient agencies.

3.3.2 Rule Significance

Rule significance is arguably the most important correlate with participation. As mentioned above, rules going through the traditional notice and comment process receive a significance designation indicating whether the rule has a significant economic impact (greater than \$100 million) or significant legal consequences. We would expect rule significance to be highly correlated with participation in rules for one or both of two reasons. First, insofar as rule significance designations actually denote importance, we expect more important rules to receive greater public attention. Second, however, significance designations may themselves induce participation whether because the individual participant sees the significance designation

when he or she goes to comment or because interest groups and media sources mainly only track regulations reported as significant. Regardless, we would expect more significant rules to receive greater levels of participation.

3.3.3 Legal Deadlines

Delay is one of the most commonly cited complaints about bureaucratic processes. For example, in a hearing by the Subcommittee on Regulatory Affairs and Federal Management, ranking member and Democratic Senator Heidi Heitkamp of North Dakota argued that regulatory delay had greatly affected her constituents in North Dakota. Citing the EPA's failure to set renewable volume obligations in accordance with the renewable fuel laws, Heitkamp claimed that biodiesel plants in her district had to shut down production (U.S. Congress 2015). Though delay is a common complaint, it need not be negative. Ensuring that new rules are consistent with previous regulations and incorporate as much information as possible takes time. Regulations may benefit from some delay if the public is able to provide meaningful input on the process. Sometimes Congress or the courts will impose legal deadlines on rulemaking activity that agencies must follow. Several studies (Gersen and O'Connell 2008; Potter 2017; Yackee and Yackee 2010) show that legal deadlines are associated with rules moving through the system more quickly. Legal deadlines are also often seen as a solution to the problem of regulatory delay (e.g. Kerwin and Furlong 1992), but these deadlines can also negatively impact the regulatory process (Lavertu and Yackee 2014). Because it shortens the process, legal deadlines may also shorten the available time for public comment. Alternatively, legal deadlines may also reflect greater congressional or court involvement in the process, eliminating the "need" for public comment on these regulations. Either way, we would expect legal deadlines to be negatively associated with comments.

3.4 Public Comments 2004-2016

I obtained rule comments and identifying information from regulations.gov for all dockets (comprised of rules and their accompanying information and comments) from 2004-2016. This covers nearly 21,000 unique rule dockets throughout the time period, representing the rulemaking activity of 96 different agencies.¹² Adding the comment counts on all regulations posted to the site throughout the period, agencies received over 24 million comments on regulations. The number of comments varies widely. Between 2004 and 2016, comments on rules ranged from 0 comments to over four million with a mean of about 1,100 comments, but over half of the rules received no comments. Table 3.1 shows the average number of comments per rule and the total number of rules produced by each agency that promulgated at least 20 rules. As is visible, agencies differ in terms of the average number of comments received. For example, while they produced a similar number of rules in the period, the IRS and Fish and Wildlife Service (FWS) differed widely, with the IRS receiving over 100 comments per rule on average and the FWS receiving nearly 12,000 comments per rule on average. Over 250 regulations received more than 1,000 comments and six regulations received more than a million comments. Thus, these data provide broad information on a wide variety of regulations from many different agencies across two different presidencies.

Direct rules, interim rules, and traditional notice and comment rules are included in the data. In addition, these data include comment information for rules that are not published in the Unified Agenda, representing a more complete picture of regulatory activity than many previous studies have provided.¹³

¹²Most regulatory commissions are not required to post rule information on regulations.gov. For a complete list of agencies covered in regulations.gov see https://www.regulations.gov/docs/Participating_Agencies.pdf. Though regulations.gov does have some rules prior to 2004, better coverage of agencies and regulations begins that year.

¹³It appears to be the case that rules which do not appear in the Unified Agenda or receive RINs are rules that are produced and finalized quickly enough to fall out of the semiannual reporting periods of the Unified Agenda or are otherwise exempt.

Table 3.1: Average Comments and Total Rules in the Regulations.gov Comments Data

Agency	Average Comments/Rule	Total Rules
Fish and Wildlife Service	11,942	403
Employee Benefits Security Administration	10,021	41
Food and Drug Administration	5,468	118
Food and Nutrition Service	5,044	87
National Park Service	4,408	42
Environmental Protection Agency	3,550	4,577
Centers for Medicare Medicaid Services	2,432	253
Office of Surface Mining Reclamation and Enforcement	1,458	83
Transportation Security Administration	717	21
Federal Motor Carrier Safety Administration	597	60
U.S. Citizenship and Immigration Services	454	40
Employment and Training Administration	335	28
Federal Highway Administration	318	46
National Oceanic and Atmospheric Administration	246	1,831
National Highway Traffic Safety Administration	167	331
Occupational Safety and Health Administration	158	68
Bureau of Indian Affairs	119	26
Food Safety and Inspection Service	117	44
Internal Revenue Service	115	485
Natural Resources Conservation Service	97	25
Small Business Administration	79	84
Animal and Plant Health Inspection Service	75	341
Comptroller of the Currency	73	80
Federal Transit Administration	70	25
Social Security Administration	70	123
Pipeline and Hazardous Materials Safety Administration	62	160
Consumer Financial Protection Bureau	59	41
Department of Energy	47	52
Consumer Product Safety Commission	44	87
Federal Prisons Bureau	38	23
Customs and Border Protection Bureau	38	149
Mine Safety and Health Administration	34	26
Financial Crimes Enforcement Network	23	23
Federal Acquisition Regulation	21	207
Alcohol and Tobacco Tax and Trade Bureau	20	78
Drug Enforcement Administration	17	68
Nuclear Regulatory Commission	16	196
Centers for Disease Control and Prevention	11	22
Federal Railroad Administration	10	64
Federal Emergency Management Agency	10	76
Federal Aviation Administration	9	6,609
Department of State	4	68
Coast Guard	4	2,858
Farm Service Agency	4	20
General Services Administration	4	71
Office of Personnel Management	3	90
Patent and Trademark Office	2	63
Bureau of Industry and Security	2	180
Corps of Engineers	2	43
Navy Department	2	37
Army Department	1	23
Office of Thrift Supervision	1	31
Pension Benefit Guaranty Corporation	0	35
Agricultural Marketing Service	0	90
Federal Trade Commission	0	27

To participate in notice and comment rulemaking via regulations.gov, a potential commenter may simply click a direct link to a rule provided by an interest group directly or

search for the rule by name, keyword, RIN, docketID, and more. The potential commenter may then enter text for a comment in the box provided and/or upload an attachment. Prior to this system, commenters had to mail, fax, or email any potential comments to the agency. After its implementation, regulations.gov has seen participation in rulemaking increase over time. For example, participation via the online system more than doubled between the last eight months of 2007 and the first eight months of 2008 (Mendelson 2011).

The nature of comments on regulations differ significantly, and the regulations I read typically received both supportive and opposing comments. For example, the Fish and Wildlife Service produced a regulation in 2013 which restricted the interstate commerce and export of ivory except for some antiques and also limited the number of hunting trophies allowed per trophy hunter. The regulation received over one million comments. Some organizations commented on the rule directly. For example, the Global March for Elephants and Rhinos produced a statement commending the progress the agency made but urging it to protect elephants further while the Safari Club (a pro-trophy hunting group) raised concerns over how the new rule would affect hunters. Similarly, a large number of citizens commented on the proposed rule on both sides of the issue. These comments ranged from simple statements like “Stop ivory trade!” to longer, more drawn out explanations. Musicians and craftsmen, among others, raised concerns over how the regulation would affect their businesses while many citizens commended FWS for its work to protect elephants. Still others criticized the agency for not protecting elephants enough. In general, the Fish and Wildlife Service’s regulations on endangered species are the subject of considerable public interest, much like the National Park Service’s rules regarding conservation and hunting.

Common interest rules like endangered species and hunting regulations are not the only rules that garner wide public attention, however. For example, the rule with the largest number of comments (receiving over four million) was produced by the EPA in 2014 to create greenhouse gas emissions standards for existing power plants based on direction from one of

Obama’s memoranda. In 2015, the Wage and Hour division produced a regulation raising the overtime pay minimum salary from \$23,000 to \$50,000 which received nearly 300,000 comments both from workers supporting the regulation and business owners opposing it. The FAA’s 2015 rule requiring registration and marking of aircraft, including model airplanes, received nearly 5,600 comments, many of them disgruntled members of the Academy of Model Aeronautics upset that the FAA was “asserting its authority” over model airplanes.

Often, regulations like these are the subject of public interest group campaigns encouraging members to comment. Sometimes mass commenting campaigns are not even orchestrated directly by interest groups, which can bring in a large, public audience. A U.S. Copyright Office study on fair use and the DMCA takedown provisions received considerable attention from Youtube stars. Some like Youtuber Doug Walker used their considerable audience to encourage viewers to comment on the study.¹⁴ Following this and similar appeals by other internet celebrities, the study ultimately received over 90,000 comments. Similarly, internet comic Matthew Inman, of “The Oatmeal” encouraged his internet audience to comment on an environmental impact statement produced by the Department of Interior in support of a plan to bring Grizzlies back to the Northern Cascades. The comments poured in at over 1,000 comments per hour, resulting in more than 100,000 comments as a result of his campaign (Brulliard 2017).¹⁵ Far from an empty forum, there is considerable participation in the regulatory process from interest groups, citizen members, and business owners across a wide array of regulations covering nearly every subject on which agencies might regulate.

3.4.1 Variables and Model

To consider the impact of agency decisions regarding rule coding and comment opportunities, I ran a zero-inflated negative binomial regression model. The model includes (but does

¹⁴Walker’s video encouraging support is here: <https://www.youtube.com/watch?v=NoIL5qUI1p8>

¹⁵Information about Inman’s campaign here: http://theoatmeal.com/blog/grizzlies_north_cascades.

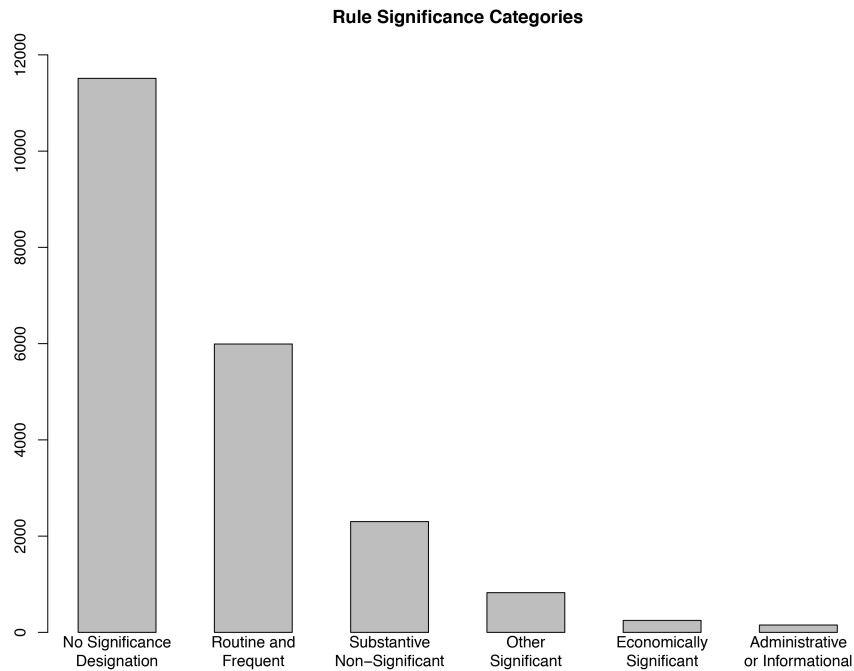
not report) year fixed effects and controls in the zero inflated portion of the model. Due to differences in data coverage between sources, the analysis covers 85 unique agencies. An observation is a final rule and the dependent variable is the number of comments on regulations promulgated by agencies.

Expertise comes from Selin (2015) and is an indicator for whether or not both leaders and lower level agency employees have expertise requirements. Some agencies require a particular position to be filled by someone with a particular type of degree or experience. For example, the Defense Nuclear Facilities Safety Board requires that board members be “respected experts in the field of nuclear safety” (Selin 2015, 973).

The Significance variables are the agency-reported level of significance assigned to a rule. For those agencies and rules that undergo OMB review, agencies report a significance level in the Unified Agenda. Rules and agencies that are not published in the Unified Agenda do not receive any designation. In the model, there are indicators for each significance type (“Economically Significant”, “Other Significant”, “Substantive, Non-Significant”, “Administrative”, “No Significance Designation”, and “Administrative”). A breakdown of rules by significance is shown in Figure 3.1. About half of the rules did not receive any significance designation. About one percent of the rules were economically significant and about four percent were other significant. About 11 percent were substantive but not significant and about 30 percent were routine and frequent. Lastly, under 1 percent of the rules were coded administrative or informational.

Economically significant rules are those rules that are estimated to have a yearly impact on the economy of \$100 million or more. For example, the rule with the largest number of comments was a rule promulgated by the EPA that covered greenhouse gas emissions from state power plants. Other (substantive) significant rules are those rules that may impact the activities of other agencies or raise novel legal considerations. For example, in 2014, the Administration for Children and Families produced a substantive significant regulation

Figure 3.1: Rule Significance Categories.



producing standards that would reduce sexual abuse and harassment of unaccompanied children of illegal immigrants in custody facilities. Substantive non-significant rules do have a substantive impact but are less likely to raise the same sorts of legal issues and tend not to impact the activities of other agencies. For example, the Alcohol and Tobacco Tax and Trade Bureau finalized a rule in 2008 that created new certification requirements for imported wine. Routine and frequent rules are those rules that the agency promulgates on a frequent basis or that cover routine regulatory matters. For example, the FAA produces a set of airworthiness directives for various companies and aircraft models as they come to market. Administrative or informational rules are rarely-produced, minor regulations, which are usually used for housekeeping purposes such as updating job titles or incorporating new legal authorities into rule descriptions.

Legal Deadline is simply an indicator for whether or not Congress or the courts imposed a deadline. *Business Effect* is an indicator for whether or not the agency reported that the rule had an effect on businesses. There is also an indicator for each of the following: NPRM, Interim Rule and Rule Identification Number (RIN).

Employees, meant to capture agency size, is the number of all employees (appointees, careerists, etc) in the designated agency. Congressional Salience, meant to consider congressional attention on the agency, looks at the number of hearings in which the agency was the subject and/or a witness employed by the agency delivered testimony in the given calendar year. These data come from the Congressional Proquest database.

3.5 Results

The results of the negative binomial portion of the zero-inflated negative binomial model are visible in Table 3.2. The results of the complete model as well as a standard negative binomial model are available in the appendix.¹⁶ As expected, agency expertise has a strongly negative relationship with public participation in rulemaking while congressional salience had a positive relationship. In terms of rule characteristics, more significant rules received greater numbers of comments while rules with legal deadlines received fewer comments overall.

In terms of robustness, I ran the model using Selin's policy independence measure instead of expertise and received a similar negative result for the expertise variable.¹⁷ To ensure that using rule-level data to assess agency characteristics is not the reason for the significant results on the expertise variable and congressional salience variable, I ran two aggregated models. First, I ran a standard negative binomial model using one observation per agency with the average number of comments per rule as the dependent variable and

¹⁶I ran the model with expertise in the zero-inflated portion of the model and the results were substantively similar.

¹⁷I use Selin's policy independence rather than personnel independence because few agencies in my dataset possess the characteristics used to create the measure. That is, most of the personnel characteristics apply to independent regulatory commissions. Also, the policy independence measure seems more relevant to the theoretical story I tell for expertise.

Table 3.2: Comment Model Results

Variable	Negative Binomial	Zero-Inflated Negative Binomial
Expert Agency	-3.87* (0.42)	-3.80* (0.29)
Has Deadline	-0.97* (0.36)	-1.05* (0.37)
Total Hearings	0.03* (0.004)	0.03* (0.01)
Has RIN	0.08 (0.96)	0.76 (0.66)
Has Interim	-1.58* (0.51)	-1.92* (0.42)
Has NPRM	0.05 (0.76)	-0.36 (0.38)
Business Effect	-0.73 (0.45)	-1.09 (0.42)
Size (Thousands)	0.03* (0.01)	0.02* (0.004)
Economically Significant	6.10* (0.82)	6.30* (0.61)
Other Significant	4.73* (0.72)	4.83* (0.50)
Substantive Non-Significant	3.42* (0.77)	3.47* (0.69)
No Significance Designation	0.40 (0.93)	1.27 (0.74)
Informational/Administrative	-1.20 (0.85)	-0.80 (0.85)
Constant	3.72* (1.50)	3.39* (1.23)
		Zero-Inflated (Logit)
Has RIN		1.00 (0.41)
Has Interim		-38.05* (1.14)
Has NPRM		-26.70* (0.61)
Business Effect		-27.44* (0.96)
Size (Thousands)		0.001 (0.01)
Constant		-0.28* (0.55)
Ln(Alpha)	2.61 (0.27)	2.14 (0.32)
(N)	20,441	20,441
Log Pseudolikelihood	-45,524	-44,711

Note: * $p < .05$

average employment as a control. I included only agencies that produced at least one rule per year on average. The expertise variable is still negative and significant. The average hearings variable is positive but only significant at $p=.11$. This may be because there are only 50 observations. Second, I ran a standard negative binomial model using agency-year averages as the dependent variable. The model included year fixed effects. Both the expertise and congressional salience variables were significant and retained the negative and positive relationships respectively.

Because GLMs are not natural to interpret, it is useful to consider the substantive effect of these variables. Holding all other variables at their means, the effect of a legal deadline is a reduction of 38 comments. A one standard deviation increase in hearings yields an increase of about 60 comments while the effect of expertise is a reduction of about 360 comments. Given that the median number of comments is zero, these effects are reasonably large. The 98th percentile of comments is 350 with zero observations included. When excluding zero observations, 350 comments is at the 95th percentile. Because the model is a GLM, the effect differs based on the value of the covariates, so for some rules, the effects are even larger. Consider, for example, a substantively significant rule going through the standard notice and comment process with no business effect. The expected number of comments for an agency without expertise requirements is 23,560 comments. For a similar rule at an expert agency, the expected number of comments is just 525 comments—a difference of more than 23,000 comments. For an economically significant rule with a business effect, the expected difference between expert and non-expert agencies is more than 33,000 comments. Of course, for rules with lower significance levels, the effect of expertise is much smaller.

These results have several important implications. The first is for agency design. Designing an agency to utilize greater expertise may hinder participation in the agency. To the extent that we wish to encourage public comment as a form of participation, this is problematic, especially when combined with results from the literature that tell us the process

is biased in favor of business interests and survey evidence that public commenters perceive this bias. Of course, whether or not expert agencies actually receive comments may not be worrisome. We might think that agencies with lots of expertise need fewer comments because they have better information about what makes good policy, and maybe we want expert agencies to be insulated from the masses, but it is important to note that to the extent expertise insulates agencies from Congress, it may simultaneously insulate from the public. It is also important to note that agencies which receive greater attention through hearings also receive more participation. Whether because the agency is more salient to both the public and Congress or because Congress can actually raise the salience of an agency through hearings, the public seems to participate more with some agencies than others. Thus, raising the profile of agencies that tend to drag in participation may be an effective means of increasing public feedback. At the same time, congressional attention on an agency may also encourage agencies to seek out feedback more often or differently than agencies that do not receive the same attention from Congress.

Similar to agency characteristics, rule design may also be associated with participation. While delay is an important problem in agency policymaking, a longer regulatory process might also allow more time to gather information and draft the best possible policy. When used to slow down meaningful policies, delay is problematic, but to the extent that policies can be made better by a lengthened notice and comment process, it may be worth trading some delay for better feedback. Beyond a shortened process, it is also possible that legal deadlines discourage participation from the public because they believe that Congress or the courts have already acted on the rule and their feedback is unnecessary. More work is needed to clarify the impacts—both positive and negative—of legal deadlines on the regulatory process.

Participation in rulemaking also has important implications for democratic accountability and bureaucratic responsiveness. Considerable complaint, especially in the current

administration, has been lodged at unelected bureaucrats and yet, the rulemaking process offers an opportunity for the public to work directly with these bureaucrats to make better policies. In order to give bureaucrats a chance to be responsive, it is important for people to participate in the regulatory process. Still, as always with the bureaucracy, we must balance the considerations of democratic accountability with the benefits of insulation and expertise for which bureaucrats are valued.

There are important implications too for the study of public participation more generally. We know from the literature so far that businesses are likely to be influential in the regulatory process, but we know little about the contextual factors that motivate participation broadly, particularly among the members of the public. Though some research has made headway in understanding the benefits of citizen participation in rulemaking, we know little about the institutional and design features of rules and agencies that might encourage or dissuade participation. To the extent that participation in rulemaking leads both to better policies and citizens that feel more efficacious and positive about government, we must consider how to mitigate all of the potential barriers to participation.

3.6 Conclusion

Unlike other forms of policymaking, notice and comment rulemaking requires agencies to announce the policies they plan to make, give adequate time for comment, and respond to the substance of comments in their regulations. In this way, rulemaking might well be considered surprisingly democratic. Indeed, agencies have worked to innovate in the area of public participation, experimenting with new technologies (Administrative Conference of the United States 2013) to invigorate the process and overcome technological, informational, and motivational barriers as well as distrust in government. However, despite research on both public participation in other areas of government and a growing literature examining rulemaking, we know relatively little about the broad, institutional factors associated with

participation in the public comment period. Given that agencies seem to welcome feedback and given that evidence suggests that comments matter at least some of the time, participation in public comment is a meaningful area of study. Of course, it is nonetheless important to consider the proper place of public participation—maximizing the helpful information agencies receive both about policymaking and about implementation and compliance with the separation from the electoral process that allows bureaucrats to act on their information and expertise as opposed to just ideology.

Though this article does make a contribution to the understanding of institutional factors associated with participation, more work is needed to fully lay bare the contextual factors affecting commenting behavior. Importantly, this study only develops a circumstantial account of public commenting, and more work is needed to tease out the causal relationship between these agency and rule characteristics and the participation a rule receives. Secondly, without more comprehensive individual-level data, it is difficult to determine if the correlation between expertise requirements and congressional salience and public participation is mainly a result of the individual-level decision to participate or agency-level decisions. For example, it is difficult to know whether potential commenters pass up the opportunity to comment on certain agencies simply because they are not aware of the agency's work or because they perceive regulations from expert agencies as overly complicated.

This study offers a first step at understanding how contextual factors affect participation in the modern notice and comment system. More work is needed to understand how agency design and internal agency policies (such as restrictions or allowances of *ex parte* communications) might impact both the decision to participate in rulemaking for citizens and how to solicit more and better feedback on the part of agencies.

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Chapter 4

Personnel, Politics, and Policymaking

The complexity and sheer size of the US federal government over the past century has led to the emergence of the “administrative presidency” (Nathan 1983) in which the president’s principal sources of influence over policy and politics have transitioned from coarse constitutional tools such as the veto and treaties to the various (imperfect) tools for managing the government’s finances, regulations, and staff. Indeed, given the size of the modern executive branch, it is arguable that the president’s most potent power is indirectly exercised through appointment of men and women to pursue the president’s agenda in the various federal agencies (*e.g.* Edwards III 2001; Aberbach and Rockman 2009). Specifically, essentially all *policy implementation*—whether it be through spending, enforcement, or rulemaking—is accomplished through the efforts of various federal employees. Some of these individuals are political appointees but, in most cases, the vast majority of them are career civil servants.

Accordingly, any president can staff only a small portion of any agency and, for various reasons, the impact of these staffers will depend on the characteristics of the agency to which they are assigned. Put simply, even the highest level political appointees—cabinet secretaries and independent commissioners—are constrained by the structure and personnel of the agency within which they are working. In addition, of course, the president is often constrained as well: some of the most important positions are subject to Senate confirmation,

some positions are subject to statutory restrictions (such as partisan balance requirements and/or fixed term lengths), and outside actors, including political parties, interest groups, and electorally salient constituencies exert pressure on the president with respect to both the ideological and demographic composition of the president's administration (*e.g.*, Mackenzie 1981; Lewis 2011). Finally, in addition to these constraints, and in spite of the fact that the president can staff only a small portion of the positions within the executive branch, there is reason to suspect that presidents are also constrained by the pool of known, willing, and acceptable individuals to appoint to these positions (Aberbach and Rockman 2009; Dewan and Myatt 2010).

These constraints imply that the president's staffing challenge is a two-dimensional problem. In addition to choosing which individuals to appoint, the president must also choose to which agency they should be appointed. When the pool of known, willing, and acceptable individuals is outstripped by the number of positions that need to be staffed, the president must consider in what positions (and, by implication, in what agencies) each of the acceptable staffers will have the most beneficial impact. In this article, we present a theory of appointments in this situation. Specifically, we construct a model of a president choosing how to assign a staffer to an agency based on the exogenous characteristics of the agency (such as its statutory mandate, productivity, and the ideological tendencies of its career staff) and those of the staffer (his or her ideological predispositions and ability to successfully influence the agency's ultimate decision-making (what we refer to as the staffer's "quality")). Once assigned to an agency, the staffer will, with some probability, influence the policy produced by the agency. Prior to presenting and analyzing the model, we first discuss what is known about how presidents choose who to appoint, and to what positions to appoint them.

4.1 How Presidents Choose Appointees

As discussed above, the president's appointment power is central to achieving his policy goals. For that reason, as well as a desire to avoid embarrassments and to be or appear responsive to constituents' interests, president pay careful attention to their appointment power and staffing decisions. As Terry Moe described, "The president's personnel decisions are strategically important to the realization of his interests as a political leader, and the White House jealously guards its powers and flexibility in putting them to best use" (Moe 1987, 498).

Considerable scholarly research has examined the tradeoff between appointing "experts" or political loyalists to the bureaucracy.¹⁸ In the classic dichotomy, neutrally competent experts help agencies create better-informed policies but presidents cannot trust these expert bureaucrats to act in their political interests. Similarly, presidents trust political loyalists to pursue their political interests but these loyalists may have little expertise, resulting in inefficient or even disastrous policy creation and implementation. Classically, scholars have bemoaned the deterioration of the "neutral competence" ethos, which presidents have, at least since Richard Nixon, traded in favor of politicizing the bureaucracy.¹⁹

While most work on the president's political appointees has focused on the characteristics of the appointees and their relationship with the president, a subset of the literature has considered the effect of agency characteristics. For example, Bertelli and Feldmann (2007) provide a nuanced view of agency and appointee political characteristics. They argue that presidents wish to offset outside influence on bureaucratic agencies, showing that presidents

¹⁸For example, see Heclo (1977), Moe (1985), Edwards III (2001), Moynihan and Roberts (2010), Lewis (2008, 2009), Parsneau (2013), Hollibaugh (2015a,b) and Krause and O'Connell (2015).

¹⁹For example, see Heclo (1975), Hart (1995), Burke (2000), and Lewis (2005,2008). It is also worth noting that the classic quest for neutral competence may ultimately be in vain. For example, Gailmard and Patty (2007, 2012) show that bureaucrats are incentivized to gain expertise in exchange for policy discretion. Without policy discretion, bureaucrats would prefer to take their talents elsewhere. As a result, if political principals want bureaucrats with expertise, they must offer policy discretion. Thus, when principals offer discretion to incentivize expertise, they create a setting that retains policy-motivated bureaucrats.

may appoint bureaucrats who share their viewpoints when appointees have great influence over an agency. When influence is more limited, presidents will seek to offset agency ideology. For example, a conservative president may select an even more conservative appointee to combat an exceptionally liberal agency.

Lewis (2008) presents theoretical and empirical evidence that presidents funnel more political appointees into ideologically distant agencies. He also finds that presidents utilized politicized Schedule C appointees in both ideologically distant and ideologically similar agencies, though the effect was somewhat higher for ideologically similar agencies. Lewis explains this effect, arguing that Schedule C appointees can serve as patronage appointees and presidents are more likely to place patronage appointees in ideologically similar agencies. Hollibaugh, Horton, and Lewis (2014) extend the patronage argument, showing that President Obama placed patronage appointees into agencies off his agenda, in agencies where appointees would least be able to affect agency performance, and in ideologically similar agencies. In the first six months of the Obama administration, for example, agency conservatism was positively related to appointees with previous agency or government experience and appointees with doctoral degrees and negatively related to “patronage” variables, such as campaign experience and appointees whose last job was in politics. Moore (2018) finds that Schedule C appointees are utilized more often when Senate polarization is high and in more ideologically similar agencies. She argues Schedule C appointees are better placed in ideologically similar agencies because of their function as advisers without signing authority.

The literature has surprisingly little to say about how bureaucratic structure affects the president’s incentives when making appointment decisions or, more generally, when setting policy priorities. Somewhat related to our own theory is the work of Huber and McCarty (2004), which demonstrates how agency “capacity” can affect the president’s incentive to staff an agency. Their theory includes some factors that ours does not and ours includes some that are absent from theirs. However, the theories are speaking to the same types of

incentives. As they say, “as bureaucratic capacity declines, bureaucrats recognize that their ability to take actions that comply with legislation also declines, diminishing their incentive to try to do so,”²⁰ implying that the president would have a smaller incentive to staff a low capacity agency, just as we find in a setting in which capacity is represented in a very different, but not incompatible, fashion.

Also related is the work of McCarty (2004), where he demonstrates how the separation of legislative and executive powers affect the president’s incentives when staffing bureaucratic agencies: the separation of budgetary control and appointment powers between Congress and the president induce a collective preference for either the president or Congress to possess the power to make credible commitments with respect to the match between agency ideology and agency resources (a point foreshadowing the more general conclusions of Crombez, Groseclose, and Krehbiel (2006)). Though not the main point of McCarty’s analysis, these findings indicate that presidents have an incentive to prioritize recruitment for, and staffing of, agencies that have some degree of budgetary or policy independence.²¹

One important difference between our theory and that developed by McCarty is that our theory ignores the confirmation process and, indeed, omits Congress entirely. This is partly motivated by a desire for parsimony, but it is also justified on empirical grounds: most political appointees serve in positions that are exempt from advice and consent.²² Furthermore, these appointees serve important roles in government agencies. According to Lewis and Waterman (2013), “arguably the most important trends in the administrative presidency include increases in lower-level appointees and more careful selection of appointees at these lower levels” (Lewis and Waterman 2013, 37). Nathan (1983) affirmed the presidential strategy

²⁰Huber and McCarty (2004), p. 491.

²¹This point is particularly poignant in light of the recent battles over staffing—and budgetary authority—of “independent” agencies such as the National Labor Relations Board, Federal Communications Commission, and Securities and Exchange Commission.

²²In addition, advice and consent positions can on occasion be filled through recess appointments (Black, Madonna, Owens, and Lynch 2007, O’Connell 2009).

of utilizing political appointees, particularly at the lower-level, to drive policy change in agencies. He argues that Reagan was successful at pushing for his policies because he had a strong cadre of political loyalists among the middle and lower appointment ranks. President Ford echoed these considerations, arguing that a president needs to be able to “reach into the bowels of a department” because otherwise “his decisions way up at the top will seldom be implemented out in the grassroots” (Lewis 2008, 57). These lower-level appointees are important to presidents for several reasons.

First, excepted political appointees (including non-career SES, PA, and Schedule C appointees) do not undergo advice and consent or competitive hiring processes. This allows president and their cabinets choices over the officials who serve under them without gaining approval from the Senate and without the public intrigue associated with the advice and consent process. In particular, this allows presidents to utilize officials who are unwilling or unable to go through the advice and consent process. For lower-level excepted positions, presidents also have an opportunity to cultivate less experienced advisors for their own and future administrations (Ingraham, Thompson, and Eisenberg 1995). In line with Nathan (1983), Bonafede (1987) notes that Reagan used just this strategy for Schedule C appointees in his administration, appointing young partisans who would gain experience and eventually be promoted into higher level positions.

Excepted appointments also serve as valuable liaisons between career officials and advice and consent officials. Excepted appointees frequently serve as chiefs of staff or as deputy undersecretaries tasked with advising secretaries and undersecretaries. They often report on specific policy areas (such as the Deputy Undersecretary for Food Safety in the Department of Agriculture) and serve as gatekeepers between career staff and the highest level officials. Many excepted officials, particularly at the higher levels, ensure the president’s vision for agency policy is adequately represented in rulemaking activity before passing the rules on to top level officials.

Related Theoretical Literature on Quality and Ideology. Our model is related to an emerging body of work that considers the role of quality (or, in models of electoral politics, “valence”) for spatial policy making.²³ Closely related in terms of the operationalization of policy preferences, Callander and Martin (2017) present a theory of policymaking that shares our focus on policies being characterized by both ideology and quality. Their interest is in dynamic policymaking in a Romer-Rosenthal style bargaining environment rather than agenda setting from an exogenous set of feasible proposals and, accordingly, they address different issues than we do in this article. That said, the two theories are complementary and, ultimately, it would be fruitful to explore the implications of combining them. Similarly, Turner (2017) presents a theory of bureaucratic policymaking in which the ultimate impact of a policy is a function of both the policy’s ideological location and the level of effort—treated as a valence characteristic—exerted by the agency in the implementation of the policy. Turner’s focus is on the impact of *ex post* review on policymaking within such settings, which can be characterized by both moral hazard and adverse selection.²⁴

4.2 Appointment Dynamics in the Obama and Trump Administrations

Senate confirmation of advice and consent appointees has taken longer and resulted in more failures for presidents in the last few decades than under previous administrations (O’Connell 2015). Though cabinet positions are typically filled quickly, other advice and consent appointees may take nine months or longer (O’Connell 2009). Up to a quarter of nominees fail confirmation. When advice and consent positions are vacant, the political decisions of agencies, at least in part, are made by appointees that do not go through the confirmation process. Whether or not advice and consent positions are filled, excepted

²³For example, Groseclose (2001), Schofield (2005), Jo and Rothenberg (2012), Hirsch and Shotts (2013, 2014, 2015), Hirsch (2015), Carter and Patty (2015), and Bonatti and Rantakari (2016).

²⁴See also Patty and Turner (2017).

political appointees run the day-to-day business of government and take on the lion's share of advising officials.

Figure 4.1 shows the number of Schedule C and SES appointees from 1998 through 2017.²⁵ Typically, political appointees like Schedule C and SES see significant turnover in preparation for a presidential transition and the numbers have not fully recovered nine months into the new administration. According to Fedscope, Obama increased the levels of Schedule C and SES appointees in 2014 and 2015 well beyond any previous year since 1998. In 2017, however, the level of Schedule Cs was at the lowest it has been in two decades and the level of SES appointees was at its second lowest, just after September 2001.

Critics accused the Obama administration of relying on unconfirmed policy “czars” like Elizabeth Warren to further its policy goals, in part because of the difficulty modern presidents have in getting their nominations confirmed. Moore (2018) provides the example of Antonio Weiss—an appointee who failed the confirmation process for a Treasury position only to take on a key role in the Treasury Department via an excepted position. By contrast, the Trump administration has filled positions at a much slower rate than his predecessors. Though the speed of confirmations bears part of the blame, Trump had been much slower to nominate candidates than his predecessors. Twenty-five weeks into office, Obama had 41 vacancies in top positions (deputy secretaries and undersecretaries) while Trump had 114 (Yourish and Aisch 2017). According to the Partnership for Public Service, of 636 top-level positions they track, 225 had no nominee as of February 15, 2018.²⁶ However, Trump also does not appear to have supplemented vacant top positions with a larger number of unconfirmed nominees as the graph below shows.

²⁵The data for this plot come from OPM's Fedscope tool. It shows the number of appointees of each type as of September of the given year.

²⁶See the tracker at: <https://ourpublicservice.org/issues/presidential-transition/political-appointee-tracker.php>

Schedule C and Non-Career SES appointments Over Time

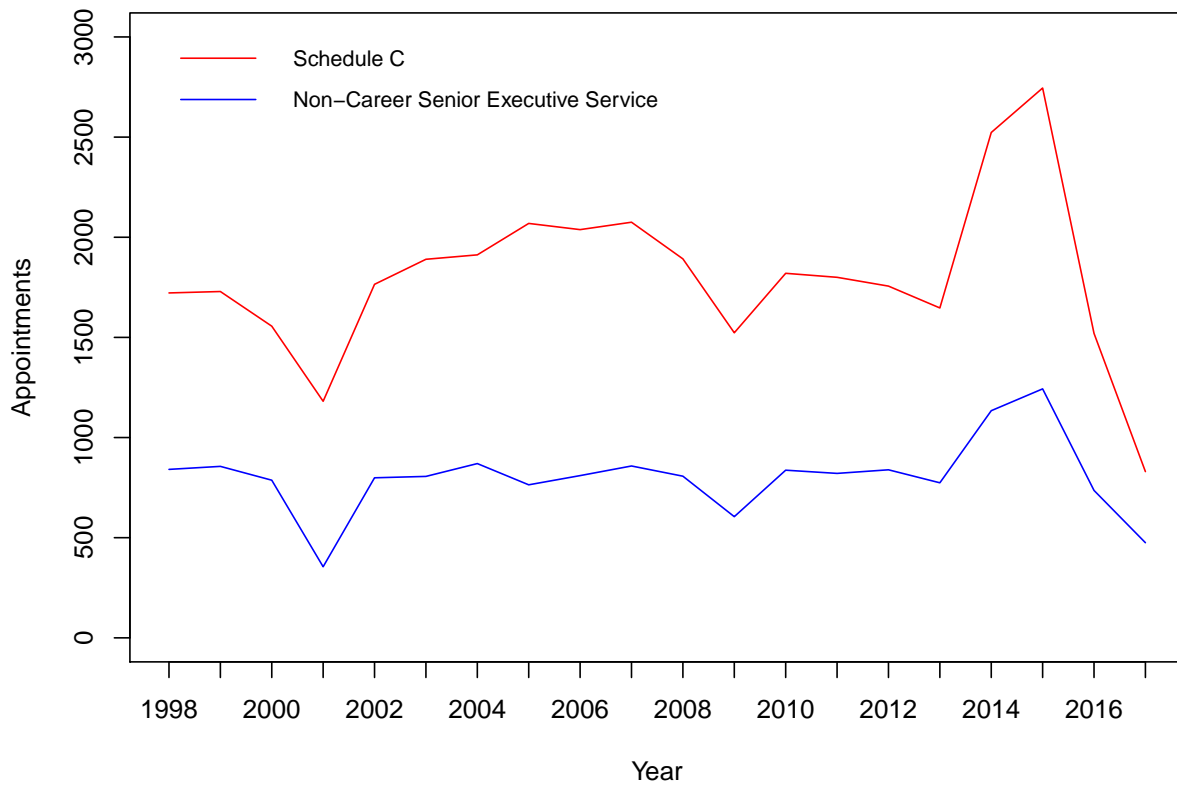


Figure 4.1: Number of Schedule C and Non-Career SES Appointees 1998-2017.

Certainly, ideology of president, appointee, and agency are an important part of the appointment decision as the ally principle would suggest. At the same time, ideology does not provide a complete accounting of a president’s appointment decision. With a limited personnel supply, presidents consider the bureaucratic landscape—how likely is an appointee to change the direction of the agency (good or bad) and how productive is an agency likely to be going forward?

4.3 The Model

In this article, we model the assignment of personnel as a strategic decision by a policy-motivated president, focusing focus on the relationship between agency characteristics (such as the agency’s ideological orientation, its workload, and the agency’s organizational capacity) and the president’s incentives to allocate scarce talent between various agencies. It is sufficient for our purposes to consider a president either choosing what agency to assign a staffer to, .

The Sequence of Choices. The basic sequence of our model is as follows.

1. The president observes the agencies’ characteristics, which we define and discuss below.
2. The president assigns a staffer, s , to one agency.
3. Staffer chooses a policy within his or her agency to work on.
4. Agencies make policy choices.
5. Players receive their payoffs and the process concludes.

Agency Characteristics and Policymaking. Each agency A is characterized by three numbers: an *ideological bias*, β_A , a *productivity*, m_A , and a *policy breadth*, σ_A . Given its characteristics, agency A produces policy as follows. The agency is presented with $m_A + 1$ *policy ideas*, the set of which we denote by F_A (for “feasible”). We assume that m_A is exogenous and fixed, but can vary across agencies. We represent each policy idea, p , as a number, (b_p, q_p) , where $b_p \in \mathbf{R}$ represents the “bias” of the policy idea and q_p represents the “quality” of the idea.²⁷ We assume that $q_p = 0$ for every policy idea unless the staffer works on (or, “promotes”) the policy, as we discuss in more detail below.²⁸

²⁷As discussed earlier (p. 71), q_p is analogous to the notion of “valence” in models of electoral competition.

²⁸Allowing for policy ideas to have heterogeneous initial qualities is an interesting avenue to extend this model, but space constraints leads us to leave this for future work. As an aside, such an extension seems likely to provide substantively interesting results above what we obtain here only if there is some relationship between q_p and b_p , perhaps as the result of strategic forward-looking behavior by bureaucrats with the agency in question.

We assume that, for each agency A , there is a policy $\hat{p}_A \in F_A$ which is ideologically identical to the agency’s bias: that is, $b_{\hat{p}_A} = \beta_A$ and $q_{\hat{p}_A} = 0$.²⁹ We refer to this policy as agency A ’s *default policy*. The remaining m_A policies in F_A are assumed to draw independently from a $\text{Normal}(\beta_A, \sigma_A)$ distribution.³⁰

Assumption 1. *For all m_A policies in F_A other than \hat{p}_A ,*

$$\begin{aligned} b_p &\sim \text{Normal}(\beta_A, \sigma_A) \text{ and} \\ q_p &= 0. \end{aligned}$$

Staffing. The president’s staffing decision involves choosing which agency, $a \in \mathcal{A}$, to assign a staffer, denoted by s . The staffer is characterized by a policy bias, $\beta_s \in \mathbf{R}$, and a quality, $q_s > 0$, each of which is known by the president.³¹

Payoffs. Our model is essentially based on three types of players: the agencies, the president, and the staffer. All players are assumed to be policy-motivated and prefer higher quality policies to lower: formally, given a policy $p = (b_p, q_p)$ and a player $i \in \mathcal{A} \cup \{P\} \cup \{s\}$, player i ’s payoff is assumed to be equal to:

$$u_i(p, \beta_i) = q_p + v(b_p, \beta_i),$$

²⁹These assumptions amount to a normalization that pins down what the agency will do in the absence of the president assigning personnel to the agency. Namely, in such cases, the agency will choose \hat{p}_A . This is why the agency observes $m_A + 1$ policy ideas as opposed to m_A .

³⁰Our results would remain unchanged so long as maintains the assumption that the policy ideas are independently distributed according to location-scale family.

³¹The assumption that the staffer’s policy bias and quality are known by the president simply reduces notation and—because we are modeling this as a one-shot game—none of our results rely upon this assumption. If the interaction between the president and staffer were repeated, then the informational assumption would of course be very important. We leave such an extension for future work.

where $v(b, \beta)$ is a common “spatial” policy payoff function that is assumed to be strictly quasi-concave, maximized at and symmetric about $\beta = b$.³² Finally, we normalize all players’ ideal points by setting the president’s ideal point equal to zero: $\beta_P \equiv 0$.

The Effect of Staffing on Policymaking. After the staffer is assigned to agency A , the staffer chooses a policy idea in the set of feasible policies to promote, denoted by $p_s^* \in F_A$. We model the effect of this promotion of policy idea p_s^* by the staffer as increasing the quality of the promoted idea, $q_{p_s^*}$, by the staffer’s quality, q_s . Thus, by the assumption that all policy ideas start with zero initial quality, the effective quality of the promoted idea, p_s^* , is simply equal to q_s , while the effective quality of all other policy ideas is left unchanged (*i.e.*, $q_p = 0$ for all $p \neq p_s^*$). The staffer seeks to maximize his or her payoff when choosing p_s^* .

After the staffer chooses $p_s^* \in F_A$, the agency then promulgates the policy p_A^* that maximizes $u_A(p, \beta_A)$, given the set of all available policy ideas, F_A :

$$p_A^* \in_{p \in F_A} u_A(p, \beta_A).$$

Given our assumptions, the agency will promulgate its default policy, \hat{p}_A , unless the staffer promotes some other policy idea.³³ Accordingly, the set of policy ideas in F_A that would be promulgated by the agency if the staffer chooses to promote them, denoted by $C(F_A, q_s)$, is defined as follows:

$$C(F_A, q_s) \equiv \{p \in F_A : u_A(p, \beta_A) \geq u_A(\hat{p}_A, \beta_A)\} = \{p \in F_A : v(b_p, \beta_A) + q_s \geq v(b_{\hat{p}_A}, \beta_A)\}.$$

³²Common examples of such a policy payoff function include the linear loss function, $v(b, \beta) = -|\beta - b|$, and the quadratic loss function, $v(b, \beta) = -(\beta - b)^2$.

³³And perhaps even then, though that will not occur in equilibrium.

Clearly, the set $C(F_A, q_s)$ is nonempty: it contains \hat{p}_A . Any policy idea in F_A that is *not* in $C(F_A, q_s)$ is sufficiently distant from the agency’s ideal point, β_A , that the agency would choose not to promulgate it even if the staffer promoted it.

Optimal Promotion and the Distribution of Policy Outcomes. Given our assumption about v , the staffer’s optimal choice, p_s^* , is the policy in $C(F_A, q_s)$ that minimizes $|b_x - \beta_s|$. For reasons of space and clarity, we denote the ideological location of the staffer’s choice by $y \equiv b_{p_s^*}$. For any agency A and staffer s , we write $\rho(s, A)$ to denote the equilibrium probability that the agency will promulgate its default policy, \hat{p}_A and $f(\cdot; s, A)$ to denote the equilibrium induced probability density function over policy outcomes when s is assigned to A .³⁴

In equilibrium, the distribution of policy outcomes depends on whether $\beta_s > \beta_A$ and, more interestingly, on whether $q_s < |\beta_s - \beta_A|$ (referred to as a “restricted staffer”), $|\beta_s - \beta_A| \leq q_s \leq 2|\beta_s - \beta_A|$ (referred to as a “capable staffer”), or $q_s > 2|\beta_s - \beta_A|$ (referred to as a “nimble staffer”). Figure 4.2 demonstrates each of these cases. The figure illustrates 3 of the 6 possible cases: whether β_s is larger or smaller than β_A simply determines whether the staffer promotes policies that are greater than or less than the agency’s ideological bias, β_A , so we omit a graphical illustration of this symmetric case. This distinction between $\beta_s < \beta_A$ and $\beta_A < \beta_s$ will matter, however, when we consider the president’s incentives below.

The three cases are differentiated by the predicted comparative statics of the president’s *expected policy payoff* from appointing staffer s to agency A , which is defined as follows:

$$V_P(s, A) = \rho(s, A)v(\beta_A, \beta_P) + \int v(y, \beta_P)f(y; s, A) y. \quad (4.1)$$

The function $V_P(s, A)$ isolates the *policy* impact of appointing staffer s to agency A . In our analysis below, we presume (in line with the definition of the payoffs above) that the

³⁴We formally derive ρ and f for each of the 6 cases in Appendix 4.6.

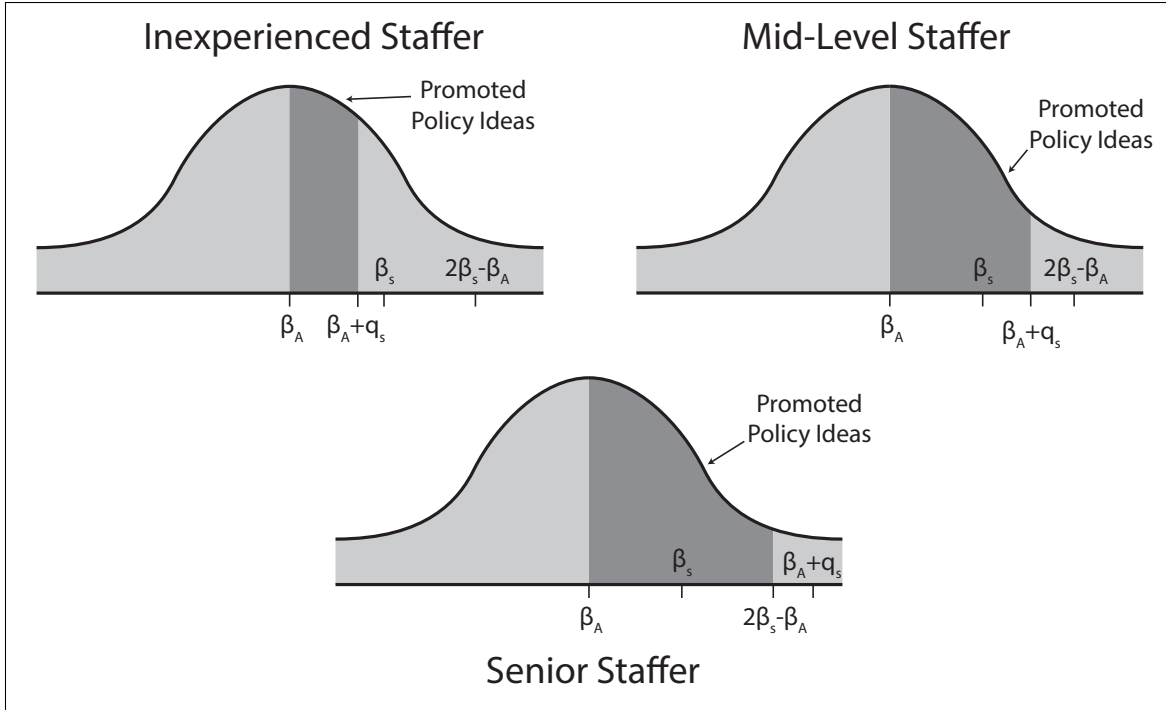


Figure 4.2: Effect of Staffer Quality on the Distribution of Promoted Policies: $\beta_s > \beta_A$

president benefits from q_s directly. However, our analysis does not hinge on this presumption unless one is considering in isolation which staffer the president would choose from a fixed pool to assign to a given agency. When choosing to which agency the president will assign a given staffer, the president's incentives are dictated entirely by Equation 4.1. With that noted, we now consider each of the three cases and their implications for how the president's policy-based incentives are determined in each.

Restricted Staffer. When the staffer's quality is low relative to the extremism of the agency ($q < |\beta_s - \beta_A|$), the staffer is unable to successfully promote policies with policy impacts close to his or her ideal policy (β_s). In this region, the president's expected policy payoff from appointing the staffer to the agency depends on the staffer's quality, q_s , but will be insensitive to changes in the staffer's ideal point, β_s .

Prediction 1. *When choosing between restricted staffers, the president's optimal choice will*

- *depend on the staffer's quality (q_s) but*
- *be independent of the staffer's ideological bias (β_s).*

Capable Staffer. When the staffer is of moderate quality, or “capable,” relative to the agency ($|\beta_s - \beta_A| \leq q_s \leq 2|\beta_s - \beta_A|$), the staffer can promote policies near his or her ideal point, but is unable to successfully promote all policies that he or she prefers to the agency's ideal point. In this region, the president's expected policy payoff from appointing the staffer to the agency depends directly on both the staffer's quality, q_s , and his or her ideal point, β_s .

Prediction 2. *When choosing from capable staffers, the president's choice will depend on both the staffer's quality (q_s) and the staffer's ideological bias (β_s).*

Nimble Staffer. When the staffer's quality is high ($q_s > 2|\beta_s - \beta_A|$), he or she can promote all policies that he or she prefers to the agency's ideal point. In this region, the president's expected policy payoff from appointing the staffer to the agency depends directly on the staffer's ideal point, β_s , but not his or her quality, q_s .

Prediction 3. *When assigning nimble staffers based only on policy outcomes, the president's choice will*

- *depend on the staffer's ideological bias (β_s) but*
- *be independent of the staffer's quality (q_s).*

Ideology vs Competence: Implications for Choosing Whom to Nominate. Taken together, Predictions 1-3 imply that ideology should matter when choosing between senior/experienced potential appointees, but that only talent/experience should matter when choosing between junior/relatively inexperienced potential appointees. These incentives would carry over to any other policy interested individual(s) charged with vetting/confirming the appointees as well, so that the predictions fall in line with the casual observation that

ideology matters (and, relatedly, obstruction generally only occurs) for nominations to senior positions.³⁵

4.3.1 Staffing, Policy Change, and Policy Outcomes

In this section, we present a series of results that characterize how the likelihood of policy change (i.e., an agency promulgating a policy other than its default) and the expected policy outcome vary with the characteristics of the staffer and agency. We denote the expected policy outcome chosen by s in agency A , conditional on $y \neq \hat{p}_A$ by $\bar{y}(s, A)$, defined formally as follows:

$$\bar{y}(s, A) = \frac{\int y f(y; s, A) y}{1 - \rho(s, A)}. \quad (4.2)$$

The Effect of Ideology. The following proposition characterizes how the agency’s ideological bias relative to that of the staffer affects the probability of the staffer having an effect on the agency’s policy (i.e., $1 - \rho(s, A)$). The staffer’s probability of having an effect is weakly increasing in the distance between the staffer’s goals and those of the agency: this is because the set of policies that the staffer prefers to the agency’s default policy, \hat{p}_A , grows as the distance increases.

Proposition 1. *Suppose that $\beta_A > \beta_s$.³⁶ Then $\rho(s, A)$ is*

1. *decreasing in β_A for $\beta_A \in (\beta_s, \beta_s + q_s/2)$ and*
2. *constant for $\beta_A \geq \beta_s + q_s/2$*

The Effect of Productivity. The fundamental, first-order effect of agency productivity is determining the number of possible options that the staffer can choose from when selecting what policy idea to promote.

³⁵Our model does not include a variable for something akin to the “level” of an appointment within a hierarchical construction of the agency as a policymaking organ, but including such a construction that would carry forward this prediction could be simply accomplished by (among other ways) multiplying the effect of the appointees quality on the president’s direct utility by a factor that is increasing in the prominence of the position appointed to within the agency in question’s hierarchy. We leave such an extension for future work.

³⁶The result is symmetric for the case of $\beta_A < \beta_s$.

The next proposition describes how agency productivity (m_A) affects the probability of the staffer having an effect on the agency’s policy (*i.e.*, $1 - \rho(s, A)$). Intuitively, as m_A increases, the staffer is more likely to observe a policy idea that he or she prefers to the agency’s default policy, \hat{p}_A , so the probability of the staffer having an effect on the agency’s policy choice is increasing in m_A .

Proposition 2. *For any agency A and any staffer s with $\beta_s \neq \beta_A$, $\rho(s, A)$ is decreasing in m_A .*

Proposition 2 implies that appointees in more active agencies should be more likely to affect their agency’s policymaking. This is difficult to test directly, of course, because the productivity of an agency is better thought of as “potential productivity” in terms of realized policies, as portrayed by the model. That said, it is simple to extend the model to allow for observed productivity to be positively correlated with potential productivity as modeled in this setting.³⁷

Proposition 2 establishes that policy change is more likely in higher productivity agencies. For the same reason, the expected policy outcome will also be closer to the staffer’s ideal point in such agencies. This is stated formally in the next proposition.³⁸

Proposition 3. *Suppose that $\beta_s \neq \beta_A$. Then*

1. *if $\beta_s < \beta_A$, $\bar{y}(s, A)$ is decreasing in m_A and*

$$\lim_{m_A \rightarrow \infty} \bar{y}(s, A) = \{ \beta_A - q_s \text{ if } q_s < \beta_A - \beta_s, \beta_s \text{ if } q_s \geq \beta_A - \beta_s, \text{ and}$$

³⁷For example, suppose that the agency chooses πm_A policies to promulgate. The staffer’s incentives would remain qualitatively unchanged, as would the conclusion of Proposition 2.

³⁸Indeed, we could state a stronger version of Proposition 3. Consider a pair of agencies A and A' differing only by $m_A < m_{A'}$ with $\beta_s \neq \beta_A = \beta_{A'}$. The distribution of the distance between the promulgated policy and the staffer’s ideal point, conditional on the staffer having an impact, in agency A first order stochastically dominates the analogous distribution in agency A' .

2. if $\beta_s > \beta_A$, $\bar{y}(s, A)$ is increasing in m_A and

$$\lim_{m_A \rightarrow \infty} \bar{y}(s, A) = \begin{cases} \beta_A + q_s & \text{if } q_s < \beta_s - \beta_A, \\ \beta_s & \text{if } q_s \geq \beta_s - \beta_A. \end{cases}$$

The Effect of Policy Breadth. The next proposition describes how policy breadth (σ_A) affects the probability of the staffer determining the agency's policy choice, $\rho(s, A)$. Increasing the agency's breadth *decreases* the probability of the staffer having an effect on the agency's policy choice, because it decreases the probability that the staffer will observe a policy that he or she both prefers to the agency's default policy and can successfully promote.

Proposition 4. *For any agency A and any staffer s with $\beta_s \neq \beta_A$, $\rho(s, A)$ is decreasing in σ_A .*

The Effect of Staffer Quality. Mirroring Predictions 1-3, staffer quality, q_s , has a direct effect on both the probability of policy change and the expected policy outcome only when q_s is sufficiently small. Altering the quality of a high quality staffer does not directly impact these values because the staffer's ability to influence policy is constrained only by the characteristics of the agency rather than those of the staffer. These conclusions are stated formally in the following proposition.

Proposition 5. *For any agency A and any staffer s with $\beta_s \neq \beta_A$,*

1. $\rho(s, A)$ is

(a) *increasing in q_s for $q_s \in [0, 2|\beta_s - \beta_A|)$ and*

(b) *independent of q_s for $q_s \geq 2|\beta_s - \beta_A|$,*

and

2. $|\bar{y}(s, A) - \beta_s|$ is

- (a) decreasing in q_s for $q_s \in [0, 2|\beta_s - \beta_A|)$ and
- (b) independent of q_s for $q_s \geq 2|\beta_s - \beta_A|$.

4.3.2 Presidential Incentives

Now we turn to the president's incentives when choosing whether, and to what agency, to appoint a staffer s . The president's equilibrium expected payoff from appointing staffer s to agency A is

$$U_P(s, A) = q_s - \rho(s, A)u_P(\beta_A) - \int_{-\infty}^{\infty} u_P(y)f(y; s, A) y. \quad (4.3)$$

For the purposes of our comparative statics, we now assume a specific functional form for u_P .

Assumption 2. *The president's policy payoffs are represented by a linear loss function:*

$$u_P(y) = -|y|,$$

Assumption 2 is a useful baseline because it implies that the president always weakly benefits from appointing the staffer to an agency, allowing us to focus on the president's preferences about which agency to appoint the staffer to. If the president's policy payoff function is strictly concave (such as is the case with quadratic loss preferences), then when β_s and β_A are both sufficiently close to each other and sufficiently large in absolute value (*i.e.*, sufficiently far from the president's ideal point) the president may prefer to not appoint the staffer at all. This is interesting, but depends on the nature of the president's policy payoff function. Accordingly, for reasons of space, we note this possibility and leave it for future work.

Choosing an Agency

In this section, we consider the president’s incentives when choosing to which agency (if any) to appoint a staffer with fixed bias β_s .

The Effect of Ideological Bias, β_A . The president’s net expected payoff from appointing the staffer to agency A —relative to not appointing the staffer—conditional on β_A , is displayed in Figure 4.3. The figure, which presumes that $q_s < \beta_s - \beta_P$, displays the effect of β_A both in the limit as $m_A \rightarrow \infty$, and an example of the effect for small values of m_A . There are five qualitatively different regions of interest in Figure 4.3, which we now discuss in turn in order to explicate the logic behind the president’s incentives.

- **Always Aligned.** The first of the five cases occurs when either $\beta_A < \beta_P - q_s$ or $\beta_A > \beta_s + q_s$. In these regions the staffer will promote only policies that benefit the president relative to the agency’s default policy. Under the assumption of linear loss (Assumption 2), the president’s payoff is invariant to β_A within this case.
- **Decreasing Alignment.** As the agency’s ideological bias, β_A , increases from $\beta_P - q_s$ to β_P , the staffer is increasingly likely to promote a policy that is farther from β_P than is the agency’s default policy (*i.e.*, β_A). This is described as “decreasing alignment” because the probability that the staffer’s and president’s policy goals are aligned is decreasing as β_A increases through this region.
- **Always Opposed.** For all values of β_A between β_P and $\beta_s - q_s$, the agency never promotes a policy that the president strictly prefers to the agency’s default policy (hence the use of the term “always opposed” for this region) and, in expectation, moving policy to the right by a constant amount that is independent of β_A . Under the assumption of

linear loss (Assumption 2), the president's expected payoff from appointing the staffer to the agency is accordingly independent of agency ideology within this region.³⁹

- **Decreasing Opposition.** As the agency's ideological bias, β_A , moves from $\beta_s - q_s$ to β_s , the staffer has sufficiently high quality, q_s , to successfully promote his or her ideal policy, β_s and the probability that the staffer observes a policy that he or she prefers to β_A is decreasing. Accordingly, the president's expected utility from appointing the staffer to the agency increases as the agency's ideological bias increases toward the staffer's ideal point.
- **Increasing Alignment.** When the agency is more extreme than the staffer's ideal point ($\beta_A > \beta_s$), then the staffer will never promote a policy that the president does not prefer to the agency's default policy and, furthermore, increasing the agency's ideological bias increases the expected distance between the agency's default policy and the policy that the staffer will promote, thus increasing the president's net payoff from appointing the staffer to the agency.

³⁹If we assumed that the president's policy payoffs were given by a quadratic loss function, then his or her net expected payoff would be decreasing over this region.

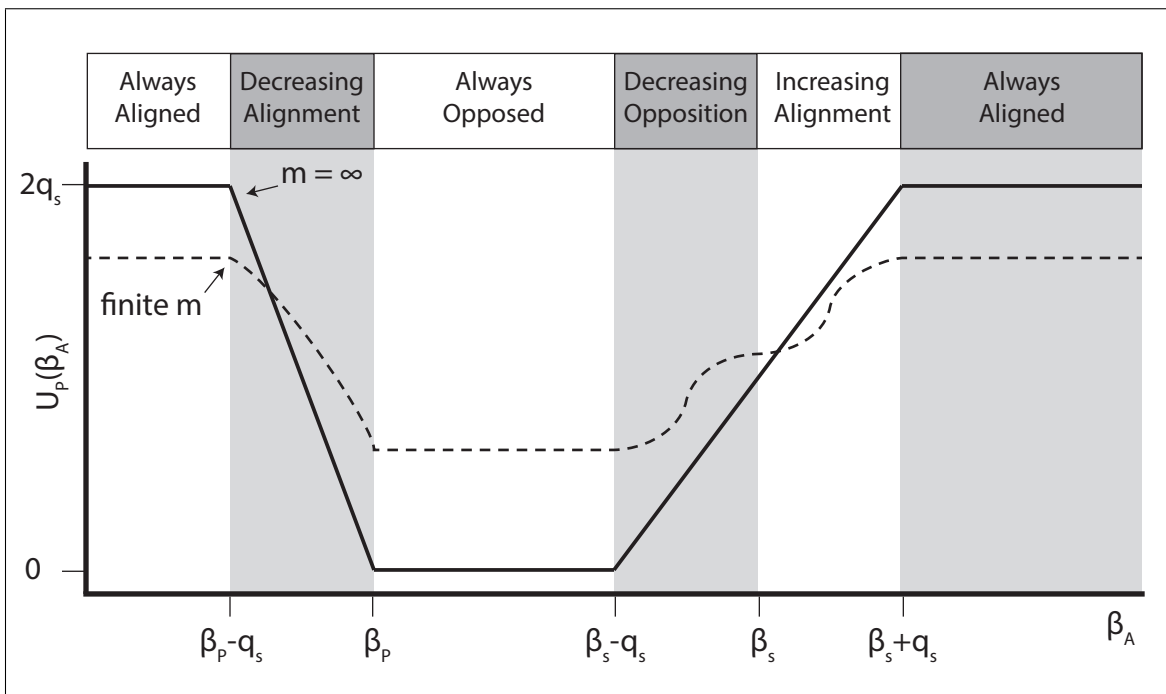


Figure 4.3: President's Net Expected Payoff as a Function of Agency Ideological Bias, β_A

The Effect of Policy Breadth, σ_A . The effect of policy breadth, σ_A , on the president's net expected payoff from appointing the staffer to an agency depends crucially on whether the staffer is aligned with, or opposed to, the president with respect to the agency's ideological bias, β_A . These two cases are displayed in Figure 4.4.

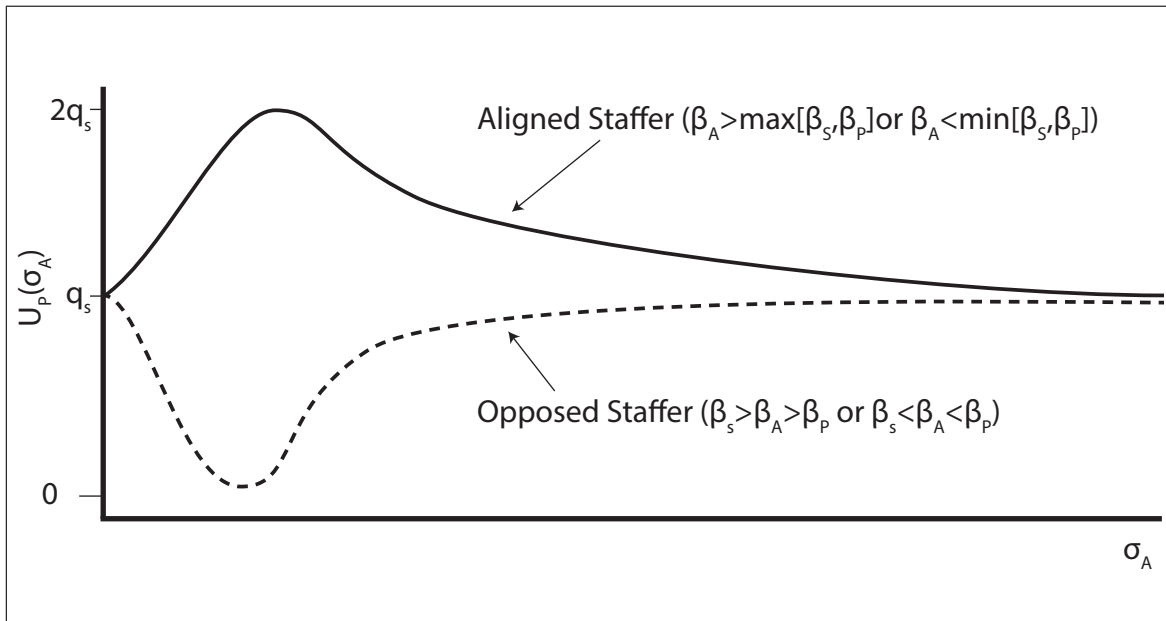


Figure 4.4: President's Net Expected Payoff as a Function of Agency Policy Breadth, σ_A

Though the two cases are qualitatively different, the curves in Figure 4.4 share a common logic. When σ_A is close to zero, the staffer is almost certain to observe only policies that are very close to the agency's default policy, β_A . As the agency's policy breadth grows, the staffer will tend to observe more policies that he or she wishes to (and can successfully) promote—thus, the president's expected payoff from an aligned staffer is increasing—and that from an opposed staffer is decreasing—in this region. As σ_A grows large, for finite m_A , the probability that there is any policy that the staffer can and would want to promote vanishes to 0. In the limit, as $\sigma_A \rightarrow \infty$, the staffer will be promoting the agency's default policy with

probability 1, so the president’s net expected utility from appointing the staffer converges to q_s .

The most interesting implication of the two curves is the reversal of the president’s marginal incentives for aligned and opposed staffers. For aligned staffers, the president has “Goldilocks” incentives with respect to policy breadth (“not too hot, not too cold”). This is because the president wants to simultaneously maximize the probability of there being some policy that the staffer can successfully promote—which suggests smaller values of σ_A —and minimize the expected distance between the promoted policy and the president’s ideal point—which suggests larger values of σ_A . This leads to an interactive effect between the staffer’s quality, q_s , and the agency’s policy breadth, σ_A , on the president’s net expected payoff from appointing the staffer, as displayed in Figure 4.5.

The figure illustrates two key characteristics of the president’s incentives when assigning an aligned staffer. First, higher quality staffers should be assigned to agencies with greater policy breadth. Second, this effect is larger when the staffer’s policy bias, β_s , is more distant from that of the agency, β_A . Put together, these imply that the president should emphasize assigning high quality staffers to agencies with greater policy breadth when considering ideologically distant agencies.

The Effect of Productivity, m_A . As with policy breadth, the effect of the agency’s productivity, m_A , depends on whether staffer is aligned or opposed. As illustrated in Figure 4.6, the president prefers appointing an aligned staffer to more productive agencies, where he or she will have more options to further the president’s policy goals, and prefers to appoint opposed staffers to less productive agencies, where he or she will have fewer options to act promote policies that are antithetical to the president’s policy goals.

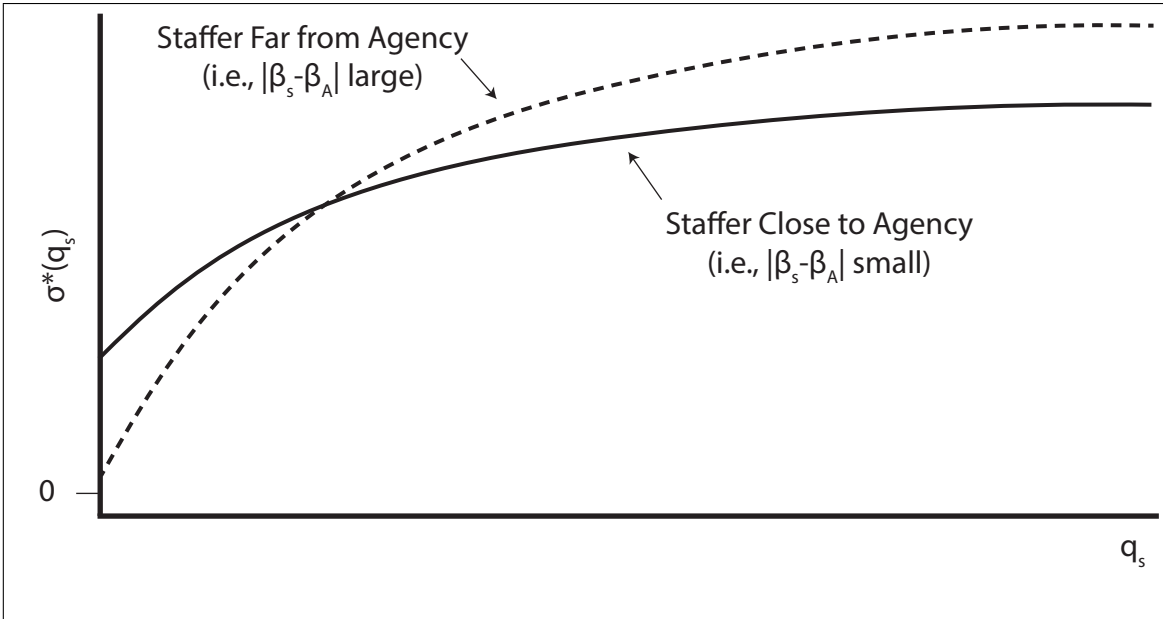


Figure 4.5: Optimal Policy Breadth, σ_A , for Aligned Staffer vs. Staffer Quality, q_s

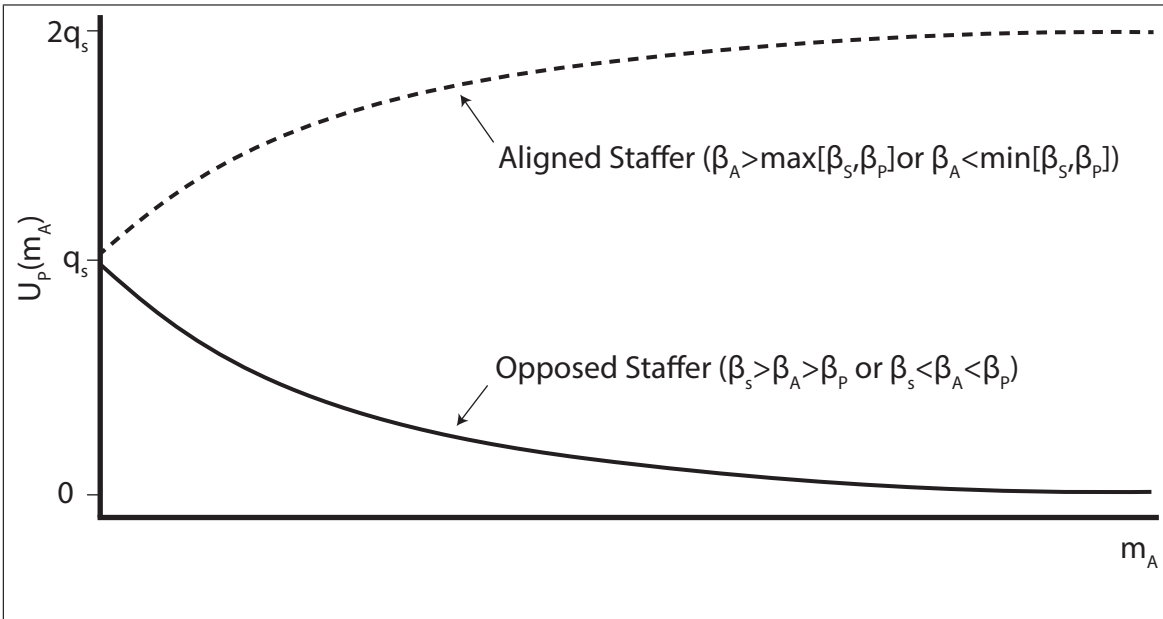


Figure 4.6: President's Net Expected Payoff as a Function of Agency Productivity, m_A

4.4 Conclusions

The model we have presented, even as stripped down as it is, offers subtle guidance for a policy-motivated president when making staffing decisions. Providing a succinct summary of this guidance is accordingly difficult. Some overall advice can be summarized as follows.

Appoint Aligned Staffers. The first, and intuitive, conclusion from the theory is that presidents should appoint staffers whose policy goals are close to his or her own. This mimics the “ally principle” (Bendor and Meirowitz 2004) in terms of ideology. The subtlety of this advice emerges both when comparing two or more staffers with varying ideologies *and* qualities and when confronted by multiple agencies across which the president can allocate multiple staffers. When considering staffers of relatively low quality, Prediction 1 implies that ideological alignment is not relevant. Rather, the staffers’ qualities are the appropriate dispositive characteristic in deciding whom to appoint.

On the other hand, when considering a high quality staffer, the advice “flips” in substance. Specifically, the president should appoint staffers to an agency whose ideological bias is opposed to the staffer, relative to the policy goals of the president, in the sense that the agency’s ideological bias is on the opposite side of the president’s ideal point from that of the staffer. Furthermore (but with the qualification that the curvature/risk-aversion of the president’s policy payoff function would matter), all things other than ideological bias of the agencies in question held constant, the president should appoint a high quality staffer whose ideal point varies from the president’s to an agency that is on the opposite side of the president’s ideal point from the staffer’s and this divergence between the agency’s ideological bias and the president’s ideal point should be *proportional to the staffer’s quality*. Thus, the president should appoint a higher-quality, “leftist” staffer to a more distant “rightist” agency than a lower-quality leftist staffer.

Complementarity of Alignment and Productivity. When deciding where to assign an aligned staffer among a set of agencies with respect to which the staffer’s ideal point is aligned relative to the president’s, the president should choose the more productive of these agencies. Conversely, when assigning a staffer among agencies with respect to which the staffer’s policy goals will be opposed to those of the president, the president should choose the less productive agency.

Narrow Agencies Are Less Important. When comparing two agencies that differ only with respect to policy breadth, the potential staffer’s ideal point is less relevant for the agency with the narrower policy breadth. Thus, when assigning high quality staffers whose policy goals diverge from the president’s, the president should tend to assign these individuals to agencies with relatively narrow policy breadths. To the degree that policy breadth correlates with “salience” or “importance” of the agency’s jurisdiction, the result might look like the president is assigning high quality, ideologically extreme staffers to relatively unimportant agencies.

Talent is a Two-Edged Sword. Finally, when comparing various potential staffers, the president should recognize that high quality staffers are those that require the most ideological “screening” in the sense that a staffer’s ideological divergence is more relevant for the president’s payoff when the staffer in question has high quality and therefore can move policy quite far from the agency’s default policy. This implies that the president should exclude some high-quality individuals on the basis of ideology while assigning lower-quality (i.e., more junior) staffers possessing similar ideological divergence.

4.4.1 Where to Go from Here

The model presented in this article is obviously at best a first step toward including agency characteristics and the logistical/procedural realities of administrative policymaking within a theory of political appointments/staffing and policymaking. It elides many important details

of the bureaucratic policymaking process, including hierarchical decision-making, information asymmetries, coordination, implementation, and team production.⁴⁰ That said, the model does provide an illustration of the complexities facing a policy-motivated executive confronted with staffing the agencies that actually draft and implement most public policy.

⁴⁰See, *inter alia*, Hammond and Miller (1985), Knott and Miller (1988), Lupia and McCubbins (1994), Ting(2002, 2003, 2008), Gailmard and Patty (2011), and Turner (2016).

4.5 References

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4.6 Distribution of Policy Outcomes

Here we present the distribution of policy outcomes in the six different parameter regions, based on β_s, β_A , and q_s . We denote the cumulative distribution of the Normal(β_A, σ_A) distribution by $\Phi(\cdot; \beta_A, \sigma_A)$ and the probability density function by $\phi(\cdot; \beta_A, \sigma_A)$. When the context is clear (*i.e.*, we are considering a single agency), we will write these simply as Φ and ϕ , omitting the parameters β_A and σ_A .

Refer to Figure 4.7 for the derivations in this section.

Restricted Staffer. If $q_s < |\beta_s - \beta_A|$ and $\beta_s > \beta_A$, then the staffer will promote the policy that is closest to β_s within the interval $[\beta_A, \beta_A + q_s]$, if any such policy idea exists. If not, the staffer will promote β_A . Thus, the probability density function of y is

$$f(y; s, A) = \{ m_A \phi(y) (\Phi(y) + 1 - \Phi(\beta_A + q_s))^{m_A - 1} \text{ if } \beta_A < y \leq \beta_A + q_s, 0 \text{ otherwise,} \quad (4.4)$$

and the probability mass for $y = \beta_A$ is

$$\rho(s, A) \equiv \Pr[y = x_A; \beta_A, \sigma_A, m_A] = (1 + \Phi(\beta_A) - \Phi(\beta_A + q_s))^{m_A}. \quad (4.5)$$

If $q_s < |\beta_s - \beta_A|$ and $\beta_s < \beta_A$, then the probability density function of y is

$$f(y; s, A) = \{ m_A \phi(y) (\Phi(\beta_A - q_s) + 1 - \Phi(y))^{m_A - 1} \text{ if } \beta_A - q_s \leq y < \beta_A, 0 \text{ otherwise,} \quad (4.6)$$

and the probability mass for $y = \beta_A$ is

$$\rho(s, A) \equiv \Pr[y = x_A; \beta_A, \sigma_A, m_A] = (1 - \Phi(\beta_A) + \Phi(\beta_A - q_s))^{m_A}. \quad (4.7)$$

As mentioned above, note that—because $q_s < |\beta_s - \beta_A|$ —the distribution of policy outcomes is independent of β_s .

Capable Staffer. If $|\beta_s - \beta_A| \leq q_s < 2|\beta_s - \beta_A|$ and $\beta_s > \beta_A$, then the probability density function of y is

$$f(y; s, A) = \{ m_A \phi(y) (\Phi(y) + 1 - \Phi(\beta_A + q_s))^{m_A - 1} \text{ if } \beta_A < y \leq 2\beta_s - \beta_A - q_s, m_A \phi(y) (\Phi(y) + 1 - \Phi(2\beta_s - y))^{m_A - 1} \text{ if } 2\beta_s - \beta_A - q_s < y < \beta_A, 0 \text{ otherwise,} \quad (4.8)$$

and the probability mass for $y = \beta_A$ is

$$\rho(s, A) \equiv \Pr[y = x_A; \beta_A, \sigma_A, m_A] = (1 + \Phi(\beta_A) - \Phi(\beta_A + q_s))^{m_A}. \quad (4.9)$$

If $|\beta_s - \beta_A| \leq q_s < 2|\beta_s - \beta_A|$ and $\beta_s < \beta_A$, then the probability density function of y is

$$f(y; s, A) = \{ m_A \phi(y) (\Phi(y) + 1 - \Phi(2\beta_s - y))^{m_A - 1} \text{ if } \beta_A - q_s < y < \beta_s, m_A \phi(y) (\Phi(2\beta_s - y) + 1 - \Phi(y))^{m_A - 1} \text{ if } \beta_s \leq y < \beta_A, 0 \text{ otherwise,} \quad (4.10)$$

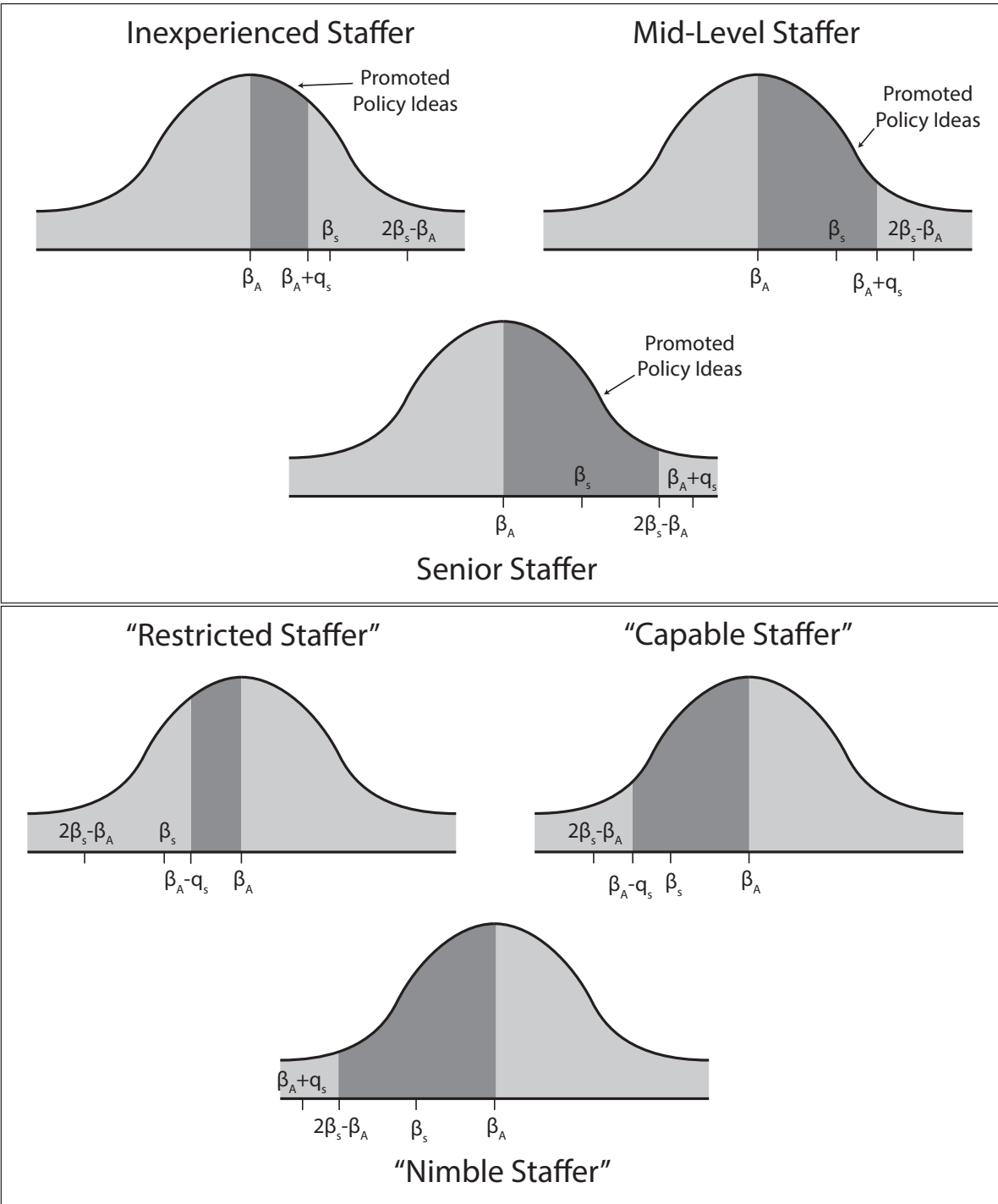


Figure 4.7: Effect of Staffer Quality on the Distribution of Promoted Policies

and the probability mass for $y = \beta_A$ is

$$\rho(s, A) \equiv \Pr[y = x_A; \beta_A, \sigma_A, m_A] = (1 - \Phi(\beta_A) + \Phi(\beta_A - q_s))^{m_A}. \quad (4.11)$$

Nimble Staffer. If $q_s \geq 2|\beta_s - \beta_A|$ and $\beta_s > \beta_A$, then the probability density function of y is

$$f(y; s, A) = \begin{cases} m_A \phi(y) (\Phi(y) + 1 - \Phi(2\beta_s - y))^{m_A - 1} & \text{if } \beta_A < y < \beta_s, \\ m_A \phi(y) (\Phi(2\beta_s - y) + 1 - \Phi(y))^{m_A - 1} & \text{if } \beta_s < y < \beta_A, \end{cases} \quad (4.12)$$

and the probability mass for $y = \beta_A$ is

$$\rho(s, A) \equiv \Pr[y = x_A; \beta_A, \sigma_A, m_A] = (1 + \Phi(\beta_A) - \Phi(2\beta_s - \beta_A))^{m_A}. \quad (4.13)$$

If $q_s \geq 2|\beta_s - \beta_A|$ and $\beta_s < \beta_A$, then the probability density function of y is

$$f(y; s, A) = \begin{cases} m_A \phi(y) (\Phi(y) + 1 - \Phi(2\beta_s - y))^{m_A - 1} & \text{if } 2\beta_s - \beta_A < y \leq \beta_s, \\ m_A \phi(y) (\Phi(2\beta_s - y) + 1 - \Phi(y))^{m_A - 1} & \text{if } \beta_s < y < \beta_A, \end{cases} \quad (4.14)$$

and the probability mass for $y = \beta_A$ is

$$\rho(s, A) \equiv \Pr[y = x_A; \beta_A, \sigma_A, m_A] = (1 - \Phi(\beta_A) + \Phi(2\beta_s - \beta_A))^{m_A}. \quad (4.15)$$

As alluded to earlier, note that—because $q_s > 2|\beta_s - \beta_A|$ —the distribution of policy outcomes is independent of q_s .

4.7 Proofs of Numbered Results

Prediction 1 *When choosing between restricted staffers, the president's optimal choice will*

- *depend on the staffer's quality (q_s) but*
- *be independent of the staffer's ideological bias (β_s).*

Proof. The president's *policy* incentives are based on his or her expected policy payoff function defined in Equation Eq:PresidentPolicyPayoffs:

$$V_P(s, A) = \rho(s, A)v(\beta_A, \beta_P) + \int v(y, \beta_P)f(y; s, A) y.$$

Fix an agency A and consider two staffers, s and t , each of whom is restricted relative to agency A :

$$\begin{aligned} q_s &< |\beta_s - \beta_A|, \text{ and} \\ q_t &< |\beta_t - \beta_A|. \end{aligned}$$

The president's net payoff from assigning staffer s to agency A as opposed to assigning staffer t to agency A is

$$\begin{aligned} \Delta &= V_P(s, A) - V_P(t, A), \\ &= (\rho(s, A) - \rho(t, A))v(\beta_A, \beta_P) + \int v(y, \beta_P)f(y; s, A) y - \int v(y, \beta_P)f(y; t, A) y. \end{aligned}$$

Presuming that $\beta_s > \beta_A$, the marginal impact of q_s on Δ is:⁴¹

$$\frac{\partial \Delta}{\partial q_s} = \frac{\partial \rho(s, A)}{\partial q_s} v(\beta_A, \beta_P) + \int_{\beta_A}^{\beta_A + q_s} v(y, \beta_P) \frac{\partial f(y; s, A)}{\partial q_s} y + v(\beta_A + q_s, \beta_P) f(\beta_A + q_s).$$

where

$$\begin{aligned} \frac{\partial \rho(s, A)}{\partial q_s} &= -m_A \phi(\beta_A + q_s) (1 + \Phi(\beta_A) - \Phi(\beta_A + q_s))^{m_A - 1} < 0, \text{ and} \\ \frac{\partial f(y; s, A)}{\partial q_s} &= 0. \end{aligned}$$

From Equation Eq:Restricted,

$$f(\beta_A + q_s) = m_A \phi(\beta_A + q_s) (1 + \Phi(\beta_A + q_s) - \Phi(\beta_A + q_s))^{m_A - 1} = m_A \phi(\beta_A + q_s),$$

so

$$\frac{\partial \Delta}{\partial q_s} = \frac{\partial \rho(s, A)}{\partial q_s} \left(v(\beta_A, \beta_P) - \frac{v(\beta_A + q_s, \beta_P)}{(1 + \Phi(\beta_A) - \Phi(\beta_A + q_s))^{m_A - 1}} \right),$$

implying that Δ is either strictly increasing or strictly decreasing in q_s unless

$$v(\beta_A, \beta_P) = \frac{v(\beta_A + q_s, \beta_P)}{(1 + \Phi(\beta_A) - \Phi(\beta_A + q_s))^{m_A - 1}}. \quad (4.16)$$

Note that $\beta_A \neq \beta_P$ and v being strictly decreasing in the absolute value of the difference of its arguments implies that, for any given β_A, q_s, β_P , Equation Eq:RestrictedNonConstant will hold for at exactly one value $\hat{m}_A > 0$ (and continuity of v implies that this value \hat{m}_A will generically be a non-integer), establishing the first conclusion of the prediction.

⁴¹The argument for $\beta_s < \beta_A$ is symmetric.

For the second conclusion, referring to Equations Eq:fRestricted-Eq:RhoRestricted2, f and ρ are independent of β_s . Accordingly, Δ is independent of β_s . \square

Prediction 2 *When choosing from capable staffers, the president's choice will depend on both the staffer's quality (q_s) and the staffer's ideological bias (β_s).*

Proof. As with Prediction 1, the president's *policy* incentives are based on his or her expected policy payoff function defined in Equation Eq:PresidentPolicyPayoffs:

$$V_P(s, A) = \rho(s, A)v(\beta_A, \beta_P) + \int v(y, \beta_P)f(y; s, A) y.$$

Fix an agency A and consider two staffers, s and t , each of whom is capable relative to agency A :

$$\begin{aligned} |\beta_s - \beta_A| &\leq q_s < 2|\beta_s - \beta_A|, \text{ and} \\ |\beta_t - \beta_A| &\leq q_t < 2|\beta_t - \beta_A|. \end{aligned}$$

The president's net payoff from assigning staffer s to agency A as opposed to assigning staffer t to agency A is

$$\begin{aligned} \Delta &= V_P(s, A) - V_P(t, A), \\ &= (\rho(s, A) - \rho(t, A))v(\beta_A, \beta_P) + \int v(y, \beta_P)f(y; s, A) y - \int v(y, \beta_P)f(y; t, A) y. \end{aligned}$$

Presuming that $\beta_s > \beta_A$ and letting $\rho_q \equiv \frac{\partial \rho(s, A)}{\partial q_s}$ and $f_q(y) \equiv \frac{\partial f(y; s, A)}{\partial q_s}$,

$$\begin{aligned} \rho_q &= -m_A \phi(\beta_A + q_s)(1 + \Phi(\beta_A) - \Phi(\beta_A + q_s))^{m_A - 1} < 0, \text{ and} \\ f_q(y) &= \begin{cases} -m_A(m_A - 1)\phi(y)\phi(\beta_A + q_s)(\Phi(y) - \Phi(\beta_A + q_s))^{m_A - 2}(\beta_A + q_s) - q_s, \\ 0 \end{cases} \text{ otherwise,} \end{aligned}$$

Then, the marginal impact of q_s on Δ is:

$$\frac{\partial \Delta}{\partial q_s} = \rho_q v(\beta_A, \beta_P) + \int_{\beta_A}^{2\beta_s - \beta_A - q_s} v(y, \beta_P) f_q(y) y + v(\beta_A + q_s, \beta_P) f(\beta_A + q_s).$$

From Equation Eq:fCapable,

$$f(\beta_A + q_s) = m_A \phi(\beta_A + q_s) (1 + \Phi(\beta_A + q_s) - \Phi(\beta_A + q_s))^{m_A - 1} = m_A \phi(\beta_A + q_s),$$

so

$$\frac{\partial \Delta}{\partial q_s} = \rho_q \cdot \left(v(\beta_A, \beta_P) - \frac{v(\beta_A + q_s, \beta_P)}{(1 + \Phi(\beta_A) - \Phi(\beta_A + q_s))^{m_A - 1}} \right) + \int_{\beta_A}^{2\beta_s - \beta_A - q_s} v(y, \beta_P) f_q(y) y.$$

As with Prediction 1, Δ will in general be a non-constant function of q_s , as claimed.

For the second conclusion, returning to the President's expected payoff function defined in Equation Eq:PresidentPolicyPayoffs:

$$V_P(s, A) = \rho(s, A)v(\beta_A, \beta_P) + \int v(y, \beta_P) f(y; s, A) y,$$

the marginal effect of β_s on V_P is

$$\begin{aligned} \frac{\partial V_P(s, A)}{\partial \beta_s} &= 2 \int_{\beta_s}^{\beta_A + q_s} v(y, \beta_P) m_A (m_A - 1) \phi(y) \phi(2\beta_s - y) (\Phi(2\beta_s - y) + 1 - \Phi(y))^{m_A - 2} y \\ &\quad - 2 \int_{2\beta_s - \beta_A - q_s}^{\beta_s} v(y, \beta_P) m_A (m_A - 1) \phi(y) \phi(2\beta_s - y) (\Phi(y) + 1 - \Phi(2\beta_s - y))^{m_A - 2} y, \end{aligned}$$

which (due to the exponent $m_A - 2$ and the non-constant nature of v) can be equal to zero for at most one value m_A , given v , ϕ , and $\beta_s \neq \beta_A$, establishing the second conclusion of the prediction. \square

Prediction 3 *When assigning nimble staffers based only on policy outcomes, the president's choice will*

- *depend on the staffer's ideological bias (β_s) but*
- *be independent of the staffer's quality (q_s).*

Proof. Again, the president's expected policy payoff function, as defined in Equation Eq:PresidentPolicyPayoffs, is

$$V_P(s, A) = \rho(s, A)v(\beta_A, \beta_P) + \int v(y, \beta_P) f(y; s, A) y.$$

For the first conclusion of the prediction, and as with Prediction 2, suppose that $\beta_a > \beta_A$. Then, from Equation Eq:fNimble, the marginal effect of β_s on V_P is

$$\begin{aligned} \frac{\partial V_P(s, A)}{\partial \beta_s} &= 2 \int_{\beta_s}^{2\beta_s - \beta_A} v(y, \beta_P) m_A (m_A - 1) \phi(y) \phi(2\beta_s - y) (\Phi(2\beta_s - y) + 1 - \Phi(y))^{m_A - 2} y \\ &\quad - 2 \int_{\beta_A}^{\beta_s} v(y, \beta_P) m_A (m_A - 1) \phi(y) \phi(2\beta_s - y) (\Phi(y) + 1 - \Phi(2\beta_s - y))^{m_A - 2} y, \end{aligned}$$

which (due to the exponent $m_A - 2$ and the non-constant nature of v) can be equal to zero for at most one value m_A , given v , ϕ , and $\beta_s \neq \beta_A$, establishing the first conclusion of the prediction.

For the second conclusion, note that Equations Eq:Nimble-Eq:RhoNimble2 are independent of q_s , so that V_P is independent of q_s as well, as claimed. \square

Proposition 1 *Suppose that $\beta_A > \beta_s$. Then $\rho(s, A)$ is*

1. *decreasing in β_A for $\beta_A \in (\beta_s, \beta_s + q_s/2)$ and*
2. *constant for $\beta_A \geq \beta_s + q_s/2$*

Proof. Fix $\beta_A > \beta_s$. If $\beta_A \in (\beta_s, \beta_s + q_s/2)$, then $q_s < 2|\beta_s - \beta_A|$, so that

$$\rho(s, A) = (1 - \Phi(\beta_A) + \Phi(2\beta_s - \beta_A))^{m_A},$$

so that, noting that

$$\begin{aligned} \frac{\Phi(\beta_A)}{\beta_A} &= \frac{\Phi(\beta_A; \beta_A, \sigma_A)}{\beta_A} = 0, \\ \frac{\Phi(2\beta_s - \beta_A)}{\beta_A} &= \frac{\Phi(\beta_A; \beta_A, \sigma_A)}{\beta_A} = -\frac{\sqrt{\frac{2}{\pi}} e^{-\frac{(2\beta_A - 2\beta_s)^2}{2\sigma_A^2}}}{\sigma_A}, \text{ and} \\ \frac{\Phi(\beta_A + q_s)}{\beta_A} &= \frac{\Phi(\beta_A + q_s; \beta_A, \sigma_A)}{\beta_A} = 0, \end{aligned}$$

it follows that

$$\frac{\partial \rho(s, A)}{\partial \beta_A} = -m_A \left(\frac{\sqrt{\frac{2}{\pi}} e^{-\frac{(2\beta_A - 2\beta_s)^2}{2\sigma_A^2}}}{\sigma_A} \right) (1 - \Phi(\beta_A) + \Phi(2\beta_s - \beta_A))^{m_A - 1} < 0,$$

establishing the first conclusion of the proposition. If $\beta_A \geq \beta_s + q_s/2$, then

$$\rho(s, A) = (1 + \Phi(\beta_A) - \Phi(\beta_A + q_s))^{m_A},$$

so that, in this case,

$$\frac{\partial \rho(s, A)}{\partial \beta_A} = -m_A \left(\frac{\Phi(\beta_A + q_s)}{\beta_A} - \frac{\Phi(\beta_A)}{\beta_A} \right) (1 - \Phi(\beta_A) + \Phi(\beta_A + q_s))^{m_A - 1} = 0,$$

establishing the second conclusion of the proposition. \square

Proposition 2 For any agency A and any staffer s with $\beta_s \neq \beta_A$, $\rho(s, A)$ is decreasing in m_A .

Proof. Follows immediately from Equations Eq:RhoRestricted, Eq:RhoRestricted2, Eq:RhoCapable, Eq:RhoCapable2, Eq:RhoNimble, Eq:RhoNimble2, and the assumption that $\Phi(x) \in (0, 1)$ for all $x \in \mathbf{R}$. \square

Proposition 3 Suppose that $\beta_s \neq \beta_A$. Then

1. if $\beta_s < \beta_A$, $\bar{y}(s, A)$ is decreasing in m_A and

$$\lim_{m_A \rightarrow \infty} \bar{y}(s, A) = \begin{cases} \beta_A - q_s & \text{if } q_s < \beta_A - \beta_s, \\ \beta_s & \text{if } q_s \geq \beta_A - \beta_s, \end{cases} \text{ and}$$

2. if $\beta_s > \beta_A$, $\bar{y}(s, A)$ is increasing in m_A and

$$\lim_{m_A \rightarrow \infty} \bar{y}(s, A) = \begin{cases} \beta_A + q_s & \text{if } q_s < \beta_s - \beta_A, \\ \beta_s & \text{if } q_s \geq \beta_s - \beta_A. \end{cases}$$

Proof. From Equation Eq:YBar:

$$\bar{y}(s, A) = \frac{\int y f(y; s, A) y}{1 - \rho(s, A)}.$$

We prove the result for each of the three cases, presuming that $\beta_A > \beta_s$: the case where $\beta_A < \beta_s$ is proved similarly. Throughout, recall that $\bar{y}(s, A)$ is simply the conditional expected value of policy given that $y \neq \beta_A$. Accordingly, the proof strategy in each case is conditional on $y \neq \beta_A$ as well (this implies that we can ignore the denominator and normalize f conditional on m_A).

- **Restricted staffer.** For any pair of policies $x, z \in (\beta_A - q_s, \beta_A)$, the likelihood ratio for x over z , given m_A, β_A , and q_s , is

$$\begin{aligned} \lambda(x, z; m_A, \beta_A, q_s) &= \frac{\phi(x)(\Phi(\beta_A - q_s) + 1 - \Phi(x))^{m_A - 1}}{\phi(z)(\Phi(\beta_A - q_s) + 1 - \Phi(z))^{m_A - 1}}, \\ &= \frac{\phi(x)}{\phi(z)} \left(\frac{\Phi(\beta_A - q_s) + 1 - \Phi(x)}{\Phi(\beta_A - q_s) + 1 - \Phi(z)} \right)^{m_A - 1}. \end{aligned}$$

Suppose that $|x - \beta_s| < |z - \beta_s|$. Because $\beta_A - q_s > \beta_s$ (the restricted staffer case with $\beta_A > \beta_s$), this implies that $x < z$, so that $\Phi(x) < \Phi(z)$, and

$$\frac{\Phi(\beta_A - q_s) + 1 - \Phi(x)}{\Phi(\beta_A - q_s) + 1 - \Phi(z)} > 1.$$

Thus, as m_A increases, the likelihood ratio $\lambda(x, z; m_A, \beta_A, q_s)$ increases without bound and, because $\frac{\phi(x)}{\phi(z)} > 0$, $\lambda(x, z; m_A, \beta_A, q_s)$ increases without bound as m_A increases. Accordingly, \bar{y} must decrease with m_A and, in the limit, converge to $\beta_A - q_s$.

- **Capable staffer.** Consider first any pair of policies $x, z \in (\beta_s, \beta_A)$, and the likelihood ratio for x over z , $\lambda(x, z; m_A, \beta_A, q_s)$:

$$\lambda(x, z; m_A, \beta_A, q_s) = \frac{\phi(x)}{\phi(z)} \left(\frac{\Phi(\max[2\beta_s - x, \beta_A - q_s]) + 1 - \Phi(x)}{\Phi(\max[2\beta_s - z, \beta_A - q_s]) + 1 - \Phi(z)} \right)^{m_A - 1}.$$

Suppose that $\beta_s < x < z$. This implies that

$$\begin{aligned} \Phi(\max[2\beta_s - x, \beta_A - q_s]) &\geq \Phi(\max[2\beta_s - z, \beta_A - q_s]) \text{ and} \\ \Phi(x) &< \Phi(z), \end{aligned}$$

further implying that

$$\frac{\Phi(\max[2\beta_s - x, \beta_A - q_s]) + 1 - \Phi(x)}{\Phi(\max[2\beta_s - z, \beta_A - q_s]) + 1 - \Phi(z)} > 1.$$

Thus, as m_A increases, the likelihood ratio $\lambda(x, z; m_A, \beta_A, q_s)$ increases without bound and, because $\frac{\phi(x)}{\phi(z)} > 0$, $\lambda(x, z; m_A, \beta_A, q_s)$ increases without bound as m_A increases. A similar argument applies to $x, z \in (\beta_A - q_s, \beta_s)$. To establish the result, consider any x, z with $\beta_A - q_s < x < \beta_s < z$ and $\beta_s - x = z - \beta_s$ (x and z equidistant from, and on opposite sides of, β_s). In this case,

$$\begin{aligned} \lambda(x, z; m_A, \beta_A, q_s) &= \frac{\phi(x)}{\phi(z)} \left(\frac{\Phi(x) + 1 - \Phi(2\beta_s - x)}{\Phi(2\beta_s - z) + 1 - \Phi(z)} \right)^{m_A - 1}, \\ &= \frac{\phi(x)}{\phi(z)} \left(\frac{\Phi(x) + 1 - \Phi(z)}{\Phi(x) + 1 - \Phi(z)} \right)^{m_A - 1}, \\ &= \frac{\phi(x)}{\phi(z)} < 1. \end{aligned}$$

Thus, the likelihood of any policy $x \neq \beta_s$ relative to β_s is decreasing, and the likelihood of every policy $x \in (\beta_A - q_s, \beta_s)$ relative to $2\beta_s - x$ is constant, with respect to m_A . Thus, \bar{y} is decreasing with m_A and, in the limit, must converge to β_s .

- **Nimble staffer.** It is easy to verify that the argument for the capable staffer case, above, applies without modification.

□

Proposition 4 For any agency A and any staffer s with $\beta_s \neq \beta_A$, $\rho(s, A)$ is decreasing in σ_A .

Proof. Follows immediately from Equations Eq:RhoRestricted, Eq:RhoRestricted2, Eq:RhoCapable, Eq:RhoCapable2, Eq:RhoNimble, Eq:RhoNimble2, and the fact that, for any $x \neq 0$,

$$\frac{\partial \Phi(\beta_A + x; \beta_A, \sigma_A)}{\partial \sigma_A} = [x].$$

□

Proposition 5 For any agency A and any staffer s with $\beta_s \neq \beta_A$,

1. $\rho(s, A)$ is

(a) increasing in q_s for $q_s \in [0, 2|\beta_s - \beta_A|)$ and

(b) independent of q_s for $q_s \geq 2|\beta_s - \beta_A|$,

and

2. $|\bar{y}(s, A) - \beta_s|$ is

(a) decreasing in q_s for $q_s \in [0, 2|\beta_s - \beta_A|)$ and

(b) independent of q_s for $q_s \geq 2|\beta_s - \beta_A|$.

Proof. Follows immediately from the arguments in proofs of Predictions 1–3. □

Chapter 5

Party Systems and Legislative Behavior: Evidence from the Antebellum U.S. Congress

Political parties were conspicuously absent from the U.S. Constitution. The American Founders were deeply skeptical about, if not hostile toward, the role of parties in the new nation's governance. George Washington articulated the Founders' views in his presidential farewell address when he warned that "the common and continual mischiefs of the spirit of party are sufficient to make it the interest and duty of a wise people to discourage and restrain it."⁴² The history of American democracy, however, is largely the history of American political parties (e.g. Fiorina 1980; Lipset 1959; Schattschneider 1942; Schlesinger 1945; Silbey 1991; Tocqueville 1963 [1840]). By the 1830s, not only had mass political parties linked voters to the state (Aldrich 1995) but they also coordinated and organized the nation's governmental activity (James 2006; Skowronek 1982).

Though an impressive literature documents the development of early American party systems (e.g. Beard 1915; Charles 1961; Formisano 1981; Holt 1969; Hofstadter 1969;

⁴²See <https://www.gpo.gov/fdsys/pkg/GPO-CD0C-106sdoc21/pdf/GPO-CD0C-106sdoc21.pdf>. Washington's remarks were intended as criticism of the parties that had already emerged by the end of his presidency.

McCormick 1966,1986; Selinger 2016), scholarship has paid less attention to understanding how political parties structured elite behavior during this period. The relative inattentiveness is surprising because American political parties are generally conceptualized as tripartite institutions — i.e., party organizations, parties-in-the-electorate, and parties-in-office — created by strategic political elites to advance their electoral and policy goals (e.g. Aldrich 1995; Selinger 2016; Sorauf 1967). Moreover, despite important institutional developments in the nineteenth-century Congress (e.g. Gamm and Shepsle 1989; Gamm and Smith 2002; Harlow 1917; Jenkins 1998, 2011; Jenkins and Stewart 2012), scholarship on the emergence of congressional parties generally distinguishes congresses based on the presence or absence of parties (e.g. Aldrich 1995; Formisano 1981) but does not consider evolution in the nature of party influences once they were established.

In this paper, we study the relationship between political party membership and legislative behavior in the antebellum Congress. Understanding how partisanship was reflected in legislative behavior during this time period provides insight into how political parties organized the early American state, during which time Congress was the locus of governmental operations (Skowronek 1982, 23). High levels of partisan behavior in the contemporary Congress (Koger and Lebo 2017; Lee 2009, 2016; McCarty, Poole, and Rosenthal 2016) suggest the importance of understanding how political parties structured legislative behavior in other periods of U.S. history. And though a large scholarship studies party influence in Congress (e.g. Brady, Cooper, and Burley 1979; Cox and Poole 2002; Snyder and Groseclose 2000; Jenkins and Weidenmier 1999; Patterson and Caldeira 1988; Smith 2007), virtually all of it focuses on the post-Reconstruction or more recent eras. We build on research that traces the institutional development of the House and Senate (e.g. Binder and Smith 1997; Gamm and Smith 2002; Jenkins and Stewart 2012; Schiller and Stewart 2015; Swift 2002; Wirls and Wirls 2004) to examine the relationship between partisanship and congressional behavior between chambers and over time in the nation's first six decades.

Our focus and approach responds to recent calls for integrating congressional studies and quantitative methods with American political development (Katznelson and Lapinski 2005; Wawro and Katznelson 2014).

We contribute three primary findings using data from the 1st through 36th Congresses (1789-1861). First, while partisanship was a statistically and substantively significant predictor of legislative voting records across the antebellum period, we find this relationship exhibited systematic variation between chambers and across time. Second, we find that the association between partisanship and legislative behavior was about 50 percent stronger in the House than in the Senate and varied from one Congress to the next, often in ways not directly attributable to existing accounts of institutional change. Third, in each chamber, we uncover evidence of three distinct party regimes during the antebellum Congress. In combination, our findings suggest that scholarship on party emergence in the early American Congress is incomplete without also considering variation in the extent to which parties lent structure to legislative behavior. Our results also have important implications for understanding how the evolution of party systems and development of partisan institutions affected representation and state operations in an era with a more limited national governing apparatus.

5.1 Political Parties and Legislative Behavior

Political parties organize political life and occupy an especially prominent role in scholarship on legislative institutions. Few questions have received as much attention in congressional scholarship, however, as the relationship between partisanship and legislative voting behavior (e.g. Brady, Cooper, and Hurley 1979; Cox and Poole 2002; Snyder and Groseclose 2000; Jenkins and Weidenmier 1999; Smith 2007). Linkages between party membership and legislative behavior arise through two main channels. In the first, roll call voting records reflect legislators' party membership through the internal politics of the chamber. As Poole and Rosenthal (1997, 35) describe it, "political parties, either through the discipline of

power, leaders or through successful trades, function as effective logrollers ...to map complex issues into a low-dimensional space.” To do so, legislative party leaders create incentives for legislators to hew to the party line (e.g. Cox and McCubbins 1993). These incentives, which could include promising favorable committee assignments or withholding future electoral support, serve as enforcement mechanisms for securing legislators’ support for the party position. Negative agenda control further allows party leaders to prevent consideration of items on which party members disagree (e.g. Cox and McCubbins 2005; Gailmard and Jenkins 2007) such that legislatures consider only those policy proposals with widespread agreement among majority party members. As a result, partisanship may be highly predictive of legislative behavior even when underlying preferences vary among copartisan legislators.

Second, legislative voting records can also reflect political party membership through constituency- and electorally-induced pressures. For instance, party organizations nominate candidates who share their policy views and enforce party discipline by withholding electoral support from or recruiting challengers for officeholders who are insufficiently loyal. Partisan constituencies prefer legislators who identify with their preferred party and create demand for legislators to vote in ways consistent with party priorities. In both instances, legislators’ desire to win and maintain office leads them to cast roll call votes that reflect the party label on which they were elected (Mayhew 1974; Schlesinger 1966).⁴³

These theoretical perspectives on party influence in legislatures, however, have been developed by observers of the modern U.S. Congress. Though political parties quickly emerged in the early Congress as a solution to social choice and collective action problems (Aldrich 1995; Hoadley 1980,1986), the chambers adopted relatively few (and weak) partisan institutions and well-developed party organizations did not emerge until at least the 1830s

⁴³It is also possible that party membership serves as a proxy for individual legislators’ preferences; if like-minded legislators are also members of the same party, similarities in legislative voting behavior may reflect legislators’ shared preferences. To the extent legislators’ roll call records reflect electorally-induced preferences, however, an association between partisanship and legislative behavior could provide evidence of a “party effect” independently of the legislator’s own preferences.

(Beard 1915; Charles 1961; Hofstadter 1969). Prior to that, the early parties were highly personalistic (Shefter 1994; Skowronek 1982), loosely organized around personal loyalties rather than institutional rules and with weak ties with the electorate. While early parties may indeed have helped solve coordination problems in the legislature (Aldrich 1995; Hoadley 1980; Ryan 1971), it is unclear to what degree legislators had incentives to cast roll call votes based on their partisan affiliations absent the institutionalized partisan arrangements in later congresses and clear partisan electoral connections. Mass-based parties that arose beginning in the late 1820s and 1830s had well-developed electoral organizations, yet these parties were notable for their lack of programmatic commitments (Gerring 1998; Skowronek 1982) and instead were motivated primarily by distributing patronage (James 2006). These contextual features raise questions about the relevance of contemporary theories of legislative parties for explaining antebellum congressional behavior.

5.1.1 Political Parties in the Early U.S. Congress

To what extent did legislative behavior in the early American Congress reflect legislators' partisan commitments? The historical details suggest somewhat conflicting answers. On the one hand, partisan legislative institutions during this time period were relatively weak by contemporary standards. The intellectual legacies of the Founders may have contributed to an aversion among legislators for partisan legislative institutions. According to (Silbey 1989, 130), "the deep and persistent republican ideological tradition affected the development of Congress in this era, with its strong antagonism ...to any institutions that sought to discipline people, work out compromises, bring people into coalitions. It was a powerful tradition that opposed political parties as divisive and feared wily political leaders as dangers to republican harmony." As a result, antebellum legislative parties may have lacked the will or the means to collectively organize their members (Polsby 1968). Other research indicates that antebellum political parties were organized primarily around the presidency rather than

Congress (Gerring 1998; McCormick 1966). To the extent parties did play an important role in the affairs of the national government, their influence may have been clearer when examining presidents' behavior but more limited in Congress.

On the other hand, while congressional parties during this era lacked the full complement of formal tools implicated in contemporary accounts of party influence, they were not altogether impotent. As Aldrich (1995, chapter 3) details, the emergence of parties soon after the founding provided stability and structure to legislative voting behavior. Legislative parties distinguished members according to their preferences and, by the Third Congress (1793-95), induced members to consider congressional proposals among a single, dominant ideological dimension. During Jefferson's administration (1801-09), informal legislative organizations helped coordinate the legislative agenda with the President's program. However, the emergence of partisan cleavages among its members eventually stimulated Congress to develop partisan institutions. For instance, ambitious chamber leaders stacked the select committee system with their legislative allies (Gamm and Shepsle 1989), and the development of the standing committee system starting around 1810 advanced the partisan goals of House and Senate leaders (Gamm and Shepsle 1989; Gamm and Smith 2002; Harlow 1917; Jenkins 1998). Partisan competition over the legislative agenda structured debates over institutional results and procedures (Binder 1995, 1996, 1997). Early Speakers of the House have been regarded as quite partisan (Furlong 1967; Jenkins 2011), and the implementation of the voice vote in 1839 allowed parties to exercise greater control over rank-and-file voting behavior and contributed to increasingly partisan elections for Speaker, clerk, and printer (Jenkins and Stewart 2012). While congressional parties may have had fewer formal powers during the antebellum period than they developed in more recent times, these accounts suggest that partisanship was an important predictor of legislative behavior even in the country's early years.

The nature of party competition outside the legislature may have also contributed to partisan voting records among members of Congress. Beginning in the 1820s, parties developed state and local electoral organizations dedicated to recruiting candidates and mobilizing the electorate (Aldrich 1995; Silbey 1989). Parties' roles in nominating presidential candidates and administering the early American state further suggest the potential for legislative influence. Presidential elections were contested on a partisan basis following George Washington's retirement, and Federalist and Republican members of Congress convened separately to choose their party's presidential candidates through 1824 (Fess 1907). The patronage basis of mass parties in the antebellum period (James 2006) contributed to partisan administration of government (Skowronek 1982) and further suggests that electoral competition for control of Congress was reflected in the partisan character of legislative voting records.

Despite important institutional changes within Congress during the antebellum period along with the development of the first three party systems, relatively little is known about the relationship between partisanship and legislative voting patterns in this era. Instead, virtually all scholarship on partisanship and legislative voting behavior studies congressional voting behavior after the Civil War. Thus, in the main we test the hypothesis that partisanship was an important contributor to legislative roll call voting records in the antebellum Congress.

5.1.2 Institutions and Party Development in the Antebellum Congress

Congressional and party developments in the antebellum era, however, suggest that the association between party and legislative behavior was far from static. Further, the early House and Senate developed at different rates and through different means. Existing studies of party emergence in Congress (e.g. Aldrich 1995; Hoadley 1980; Ryan 1971) may therefore provide an incomplete account of how parties shaped congressional behavior in the country's first 70 years. With a few important exceptions (Brady, Cooper and Hurley 1979; Cox and Poole 2002; Snyder and Groseclose 2000), researchers have also paid less attention to temporal

and interchamber variation in the relationship between partisanship and congressional voting behavior. Following Wawro and Katznelson (2014), we aim to explore systematic historical variation in these patterns.

In doing so, we expect that antebellum parties shaped legislative behavior to a significantly greater degree in the House than in the Senate. The House and Senate differed along a number of dimensions, with implications for the importance of partisanship for legislative behavior. First, while members of the House were elected directly by voters, all Senators were elected by state legislatures during the antebellum era. Senators were thus somewhat further removed from the incentives to respond to local party organizations and mass mobilization efforts (Swift 1996). Instead, their continued tenure in office depended more on their ability to pass legislation and secure federal benefits desired by the state legislature (Schiller 2006; Schiller, Stewart, and Xiong 2013; Schiller and Stewart 2015).⁴⁴ Second, reflecting these differences in partisan electoral incentives, party leadership structures differed across the chambers and were stronger (and more politicized) in the House (Binder and Smith 1997; Jenkins and Stewart 2012). Third, the chambers took different paths in adopting rules and procedures that affected the degree of partisan control over the consideration of legislation. For instance, whereas the early U.S. House adopted rules to limit minority party rights, the Senate was more protective of the minority party (Binder 1997). Altogether, these chamber-level differences in responsiveness to the mass electorate, presence of party leadership, and rules and procedures lead us to expect that legislative voting records in the House reflected partisanship to a greater degree than in the Senate.

⁴⁴Riker (1955) posits that the political canvas led state legislative elections to be referenda on which candidate the legislature should elect to the U.S. Senate, which could have made state legislatures beholden to U.S. Senators (rather than the other way around). Under this scenario, the relationship between party membership and voting behavior in the Senate would also have likely been lower than in the House. However, more recent scholarship (Schiller 2006; Schiller 2013) indicates that state parties often did not settle on U.S. Senate candidates prior to state legislative elections, showing instead that candidates for the Senate began jockeying for support from state legislators only after the legislative elections had been completed.

We further argue that the relationship between partisanship and legislative behavior in the antebellum era varied across time. As congressional parties emerged in response to social choice and collective action problems (Aldrich 1995), we expect that legislators' voting records increasingly reflected their party affiliations in the country's first decade. However, the relationship between partisanship and voting behavior was not static upon the parties' emergence. Partisanship likely receded in importance in the period following the War of 1812, as party cohesion declined (e.g. Binder 1995) and legislators were more responsive to constituency interests than organized political parties (Jenkins and Weidenmier 1999). Poole and Rosenthal (1997) further show that a single ideological dimension fares poorly in explaining legislative voting behavior from roughly 1815 through 1825, which suggests that legislative parties were less effective in reducing the dimensionality of the agenda. By the late 1820s, however, mass political parties had developed in earnest and Congress was more fully a partisan institution. The Whigs and Democrats had developed "electoral machines, legislative organizations, [and] partisan followers" (Binder 1995, 1099); in the House, the use of the voice vote for leadership positions by the end of the 1830s had allowed House parties to better monitor rank-and-file voting behavior and contributed to increasingly partisan elections for Speaker, clerk, and printer (Jenkins and Stewart 2012). More generally, Silbey (1989, 131) characterizes the period from 1830 to 1870 as a "partisan era" in which "party, not the individual, was the key." Thus, we expect the association between partisanship and legislative behavior to strengthen with the emergence of mass party organizations and increasingly partisan legislative institutions. This relationship is likely to be strongest in the House, which, as we argued above, was more responsive as an institution to mass political developments.

Though existing research offers important insights into the predictors of especially salient roll call votes in the antebellum era and the historical development of mass political parties and legislative organization, considerably less is known about how partisanship more generally structured patterns of legislative behavior throughout this era. Our discussion above

identifies several testable hypotheses about the degree to which partisanship was reflected in legislative voting records and how this relationship varied across chambers and time. We now describe the empirical approach we use to study these questions.

5.2 Data

We test the hypotheses outlined above using roll call voting behavior in the 1st through 36th congresses.⁴⁵ We include all legislators who served full terms in office and our unit of analysis is the legislator-pair. As our key dependent variables, we use legislator agreement scores generated from roll call data.⁴⁶ These scores express the number of instances in which legislators i and j voted the same way on recorded votes. The scores are normalized by the total number of recorded votes so that they represent the percentage of the time that legislators i and j voted together within a given Congress. Higher values of these entries indicate greater similarity in legislative behavior. We generate agreement scores for each possible pair of legislators.⁴⁷ The distribution of these scores is displayed in Figure 5.3 in the Supplementary Appendix. Pooling together the 1st through 36th Congresses yields 368,354 pairs of House members and 22,288 pairs of Senators for our main analyses.⁴⁸

For our purposes, agreement scores offer several key advantages over alternative dependent variables derived from commonly-used scaling techniques such as DW-NOMINATE.

⁴⁵These data were obtained from <http://www.voteview.com>. We are grateful to Keith Poole and Howard Rosenthal for making them available. We note, however, that our analysis is necessarily limited to recorded floor votes, which raises questions about selection bias. For instance, it may be possible that recorded votes were used by party leaders to enforce party discipline (Carrubba, Gabel, and Hug 2008), in which case partisan agreement may be higher than we would have observed otherwise. For the purposes of our analysis, however, this potential explanation for variation in the use of recorded votes is precisely one of the main reasons we hypothesize why the importance of partisanship for legislative voting behavior may have varied over time. However, we note that further research is necessary on the use of recorded votes and potential selection issues.

⁴⁶Agreement scores featured prominently in Truman's (1956) study of state delegations' voting patterns in the House of Representatives and have been used in several other recent analyses of legislative behavior, including Masket (2008) and Rogowski and Sinclair (2012).

⁴⁷We treat instances in which one or both legislators missed votes as the absence of agreement, but we obtain substantively similar results when treating these as instances of agreement.

⁴⁸Complete information about the number of legislators and roll calls for each Congress are shown in Table 5.4 in the Supplementary Appendix.

First, agreement scores make no assumptions about the nature of the legislative agenda or the dimensionality of congressional voting behavior. Second, agreement scores do not require us to impose assumptions about the nature of legislative behavior over time that are needed to ensure cross-temporal comparability (see e.g., Bateman and Lapinski Forthcoming; Lee 2016). Given our interest in studying partisan voting behavior across an extended period of time, we are reluctant to adopt assumptions about the congressional agenda or legislators' decision calculus uncritically; instead, agreement scores provide a clear metric of the extent to which legislators serving together cast votes together. As we discuss below, however, we note that we have replicated our main results using DW-NOMINATE scores and find patterns that closely mirror those using agreement scores.

We assess the importance of partisanship for legislative voting behavior by evaluating whether copartisan legislators vote together at higher rates than legislators who are members of different parties. Thus, our key explanatory variable is an indicator for whether a pair of legislators is affiliated with the same political party. We use data on legislator partisanship from McKibbin (1992) to create an indicator, *Same party*, which takes a value of 1 if both legislators were members of the same party and zero otherwise.⁴⁹ We note that all our results are robust to using the measure of partisanship reported in Martis (1989), and we report these additional sets of results in the Appendix.⁵⁰ We expect that higher rates of agreement among copartisan legislators indicate greater importance of partisanship for legislative voting behavior.

⁴⁹In our main models, we do not consider pairs of legislators who both identify as Independents or nonpartisans as copartisans.

⁵⁰The McKibbin and Martis measures are distinct in several ways. The McKibbin data provide a single measure of partisanship for a legislator's entire career based on the party with which the legislator identified for the longest period of time. The Martis measure reports the legislator's partisanship for each Congress, and in principle this measure could vary over time for a given legislator. The McKibbin measure has the virtue of being relatively parsimonious, while the Martis measure is useful for characterizing partisanship during each Congress (and thus is plausibly pre-treatment). In the main, though, the measures largely agree and, as a result, we obtain virtually identical patterns of results using both measures. See Table 5.5. The number of observations differs between these models due to differences in the availability of partisan indicators.

At the outset, we note that our empirical approach does not allow us to dispositively isolate partisan influences on legislative behavior from other influences that may be correlated with it. A sizable literature interrogates whether party affects legislative behavior independently from preferences (e.g., Cox and Poole 2002; Krehbiel 1993; Snyder and Groseclose 2000); given the challenges of isolating these effects in research on the contemporary Congress, we do not expect to resolve this debate while studying the early American Congress. Instead, we look for meaningful variation in the association between partisanship across chambers and over time in ways that correspond with the theoretical account we outlined above. Below we also discuss several robustness checks that provide evidence consistent with the independent effects of parties by leveraging repeated pairs of legislators and distinguishing nonpartisan legislators from those who identified with a major party.

Because politics was highly regional in nature during much of the nation's history, we created an indicator, *Same region*, which indicates whether a pair of legislators both represented constituencies from the same Census region.⁵¹ We note, however, that tensions over the issue of slavery led to conflict primarily between legislators from the North and the South. Thus, we have also estimated models while specifying the *Same region* variable using North and South as the regional categories, with the South defined as the 11 states of the Confederacy. Our results for both shared copartisanship and shared region are robust to this alternative characterization of regionalism.⁵²

We also account for other characteristics that might influence shared patterns of voting behavior. To account for the influence of constituency preferences on legislator voting records, we use an indicator for whether legislators represented the *Same state*.⁵³ We include an

⁵¹The states belong to each Census region are as follows: *New England*: CT, MA, ME, NH, RI, VT; *Mid-Atlantic*: NJ, NY, PA; *South Atlantic*: DE, FL, GA, MD, NC, SC, VA; *East North Central*: IL, IN, MI, OH, WI; *East South Central*: AL, KY, MS, TN; *West North Central*: IA, MO, MN; *West South Central*: AR, LA, TX.

⁵²See Table 5.6.

⁵³Ideally, we would use data on district (or state) presidential vote share, yet unfortunately the former data are not available for the years prior to 1840.

indicator for *Shared Committee* that takes a value of 1 if both members of a legislator-pair served together on at least one standing committee, and zero otherwise.⁵⁴ We also included a variable for *Service Overlap* that characterizes the total number of years the legislators had served together in the House and Senate.⁵⁵ Legislators who served together on committees and who have served together in Congress have additional opportunities to develop relationships, identify commonalities, and rely on each other as trusted cue sources (e.g., Matthews 1975). If shared committee membership and congressional service increased similarities in voting behavior, we expect the coefficients to be positive.⁵⁶ Summary statistics for all variables are shown in Tables 5.7 and 5.8 in the Supplementary Appendix.

We model legislator agreement rates as a function of the explanatory variables noted above and indicators for each Congress. For simplicity, we present results from linear regression, but we discuss alternative modeling strategies and present those results in the Supplementary Appendix. Because agreement rates between legislators i and j could also be associated with legislator i 's rate of agreement with legislator k , we cluster standard errors on legislator i within each Congress.⁵⁷

We conduct two main sets of analyses to evaluate our hypotheses about partisanship and legislative behavior. In the first, we estimate the models described above separately for

⁵⁴These data were obtained from: David Canon, Garrison Nelson, and Charles Stewart, "Historical Congressional Standing Committees, 1st to 79th Congresses, 1789-1947: 1st through 36th Congresses, House and Senate," February 13, 1998 (available at http://web.mit.edu/17.251/www/data_page.html#1).

⁵⁵These data were obtained from Carroll McKibbin, "Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress, 1789-1996: Merged Data", 1997, ICPSR Study #7803. This variable is measured in decades.

⁵⁶We note that we also estimated models that accounted for a range of other potential sources of similarities, including attending the same college, shared military service, and originating from the same state, but the results for these additional characteristics were substantively tiny or not statistically significant, and they did not change our findings for the key variables listed above.

⁵⁷We note that an alternative research design could include a differences-in-differences strategy with legislator and Congress fixed effects that studies changes in voting behavior among legislators who switch parties. Causal identification in this model would come from legislators who changed parties between one Congress and the next. While this research strategy is generally superior for identifying causal relationships, this strategy is less well-suited for studying the role of partisanship over time due to the very small number of legislators in any given Congress who switched parties.

the House and Senate over the entire time period from 1789-1861. In the second, we evaluate how the relationship between partisanship and roll call voting behavior varied over time by estimating our models separately for each Congress and comparing the coefficients for *Same party* across the 36 Congresses in our data. This approach is similar to that advocated by Wawro and Katznelson (2014) and allows us to more closely explore how and when the importance of partisanship varied over time and to periodize partisan eras in the antebellum Congress.

5.3 Results

Results for our first analysis of voting patterns in the U.S. Congress are shown below in Table 5.1. Results for the House are shown on the left and results for the Senate are shown on the right. In the main, the table shows that partisanship was significantly associated with legislative behavior in both chambers of the antebellum Congress. The coefficients for *Same party* are positive and statistically significant, showing that legislators who were members of the same party voted together more frequently than legislators who were not from the same party.

Consistent with our expectations, the results also show that the relationship between partisanship and legislative behavior was stronger in the House than in the Senate, where voting patterns may be more insulated from partisan developments. The importance of shared partisanship was about 50 percent larger in magnitude in the House, where copartisans voted together about 11 to 12 percentage points more frequently than legislator-pairs from opposite parties, compared with about 7 to 8 percentage points more frequently in the Senate. This difference is significant at $p < .001$.

The results for the other covariates are also of substantive interest. Geographic considerations also played an important role in structuring legislative voting behavior. In both models, the coefficients show that legislators from the same region and state exhibited

greater similarities in voting behavior than other legislators. Though these variables do not allow us to distinguish constituency influence from preferences that may be shared among legislators from similar geographic areas, they do suggest that legislators that represented similar constituencies compiled more similar voting records in Congress than legislators from different regions or states. Interestingly, the magnitude of the *Same state* coefficient is larger in the Senate than in the House, which is consistent with our theoretical argument that Senators' behavior in office reflected responsiveness to their principals, state legislatures. Overall, shared committee membership had a relatively weak association with legislative voting behavior. The coefficients are both positive but very small magnitude, and are statistically distinguishable from zero only in the House. These results suggest that shared committee membership was not associated with greater similarity in voting behavior. Finally, we find limited evidence that shared congressional service was associated with greater similarities in voting behavior, as virtually all of the coefficients are negative.

While the results in Table 5.1 show that shared partisanship was a significant predictor of legislative voting behavior in the antebellum Congress, the findings suggest that it may not have been a particularly powerful one. The R^2 statistics suggest that party, in combination with the other covariates, explains about 47% of voting behavior in the House and 37% in the Senate. The explanatory power of party thus appears to be considerably weaker than it was in the mid-nineteenth century, when Weisberg 1978 reports that partisanship explains approximately 85% of congressional voting decisions. While we do not wish to overinterpret these model fit statistics, they do provide important context for contrasting the explanatory power of party in the antebellum period with more recent congresses.

The results shown above are robust to a number of alternative modeling strategies and specifications. First, we obtain substantively identical patterns when estimating negative binomial regressions in place of linear regression.⁵⁸ Second, we conducted a supplementary

⁵⁸See Tables 5.9.

Table 5.1: Legislative Voting Behavior in the U.S. Congress, 1789-1861

	House	Senate
Same Party	0.115* (0.002)	0.076* (0.004)
Same Region	0.049* (0.001)	0.053* (0.004)
Same State	0.031* (0.002)	0.080* (0.008)
Shared Committee	0.005* (0.001)	0.001 (0.002)
Service Overlap	-0.013* (0.001)	-0.004* (0.002)
Constant	0.365* (0.007)	0.426* (0.013)
N	368,354	221,824
MSE	0.02	0.02
R ²	0.22	0.14

Note: Entries are linear regression coefficients with standard errors clustered on legislator in parentheses. Indicators for each Congress are also included but not reported. * $p < .05$.

analysis in which our dependent variable is the difference in two legislators' DW-NOMINATE scores rather than their agreement rates. For these models, we would expect that shared partisanship would result in a negative relationship with the difference between DW-NOMINATE scores, which would indicate more similar voting patterns among copartisans. We find strong evidence for these patterns when analyzing both the first and second dimension of legislators' DW-NOMINATE scores.⁵⁹

As we noted above, our analyses cannot rule out the possibility that the *Shared partisanship* variable reflects legislators who generally share similar ideological dispositions (see, e.g., Krehbiel 1993). While precisely estimating the causal effect of partisanship remains an important challenge in legislative scholarship, we attempted to make headway on this question by replicating our analyses in Table 5.1 for those pairs of legislators who served together for more than one Congress. We estimated the models above while also including the lagged value of the difference in DW-NOMINATE scores between the pairs. To the degree that DW-NOMINATE scores reflect legislator preferences, the coefficient estimate for the difference in DW-NOMINATE scores should reflect the influence of shared preferences while the coefficient estimate for *Shared partisanship* characterizes the importance of party ties.⁶⁰ Our analysis focused on the House due to the relatively small number of legislators who served in successive Senates. We find that the coefficients for the difference in DW-NOMINATE scores are negative and statistically significant, indicating that legislators who voted more dissimilarly in a previous Congress exhibited lower agreement rates in the current Congress. However, we continue to find positive and statistically significant coefficients for the *Shared partisanship* variable.⁶¹ These results suggest that our findings about the importance of partisanship reflect the importance of legislative parties over and above shared preferences.

⁵⁹See Table 5.10.

⁶⁰We acknowledge that this solution is imperfect, however, because lagged DW-NOMINATE scores also likely reflect lagged party effects and because norms of congressional tenure changed during this period.

⁶¹See Table 5.11.

As we noted above, the findings in Table 5.1 likely obscure important variation across time in how partisanship shaped congressional voting records. We now examine temporal variation in the relationship between partisanship and roll call voting behavior in greater detail.

Partisanship and Legislative Voting Behavior across Time

Though political scientists and historians have frequently periodized American party systems (Burnham 1970; McCormick 1966, 1986), less is known about how these periods reflect stability and change in legislative voting behavior. We estimated our models above separately for each Congress and chamber. Figure 5.1 shows the coefficients for *Same party* for each Congress between 1789 and 1861. House coefficients are shown in the top plot and the bottom plot shows coefficients for the Senate. The plotted points are the coefficient estimates and the vertical lines are the 95 percent confidence intervals.

Descriptively, the plot for the House reveals substantial variation across time in the relationship between partisanship and legislative voting behavior. Consistent with the analysis of individual roll call votes found in Aldrich (1995, chapter 3), the coefficients for shared partisanship in the First and Second Congresses are virtually zero and estimated relatively precisely. By the Third Congress, however, the coefficient is positive and statistically significant and continued as such for most of the first party system. However, partisanship had virtually no association with roll call voting patterns by the mid-1810s when the Federalists' representation in Congress had substantially diminished.⁶² With the emergence of mass party organizations by the mid-1830s, partisanship increased in importance and remained a statistically and substantively important predictor of voting patterns up to the Civil War, though its magnitude varied somewhat.

⁶²Factions soon emerged within the Democratic-Republicans (Schouler 1887, 47), which culminated with the intraparty contestation over the presidential election in 1824.

The results for the Senate are broadly consistent with those for the House. Note, first, that the confidence intervals are much larger for the Senate coefficient estimates due to its considerably fewer members. Though all of the coefficient estimates during the first 15 Congresses are positive, and are occasionally statistically significant, they mostly hover between 0.05 and 0.10 and provide less evidence of temporal variation than we find in the House. Similar to the House, however, the coefficient estimates during the Era of Good Feeling (here, the 16th through the 22nd Congresses) are mostly statistically insignificant and very small in magnitude. The coefficients are positive and statistically significant beginning with the 23rd Congress (1833-35) and continuing for the rest of the time series. The coefficients are largest in magnitude in the 27th-29th congresses before returning to the 0.05 to 0.10 range.

In comparing the results across time and chambers, several key findings emerge. First, to reiterate, the relationship between partisanship and legislative behavior varied substantially over time. While party was reflected in congressional roll calls to a greater degree as formal legislative parties emerged, the association did not remain constant thereafter. Studies of party and congressional development are incomplete without accounting for this variation. Second, not only was the relationship between partisanship and voting behavior stronger in the House than in the Senate, consistent with our aggregate findings in Table 5.1, but it was also more variable in the House. Part of the explanation could lay in the fact that membership changed more quickly in the House than in the Senate due to its longer terms. It is also possible that the more numerous changes to partisan organization in the House, the presence of stronger partisan leadership positions, and the increased importance of mass party organizations for the election of House representatives contributed to more sudden changes and greater variability in the role of partisanship.

We extend the results discussed above and formally test for structural changes in the relationship between legislative behavior and partisanship using the approach described

by Wawro and Katznelson (2014) and applied in Spirling (2012). This approach allows us to periodize the partisan nature of voting behavior in the U.S. Congress. We use the time series of linear regression coefficients to identify possible change points in the relationship between *Same party* and legislator agreement scores.⁶³ The best-fitting change point model (selected based on models which returned the lowest BIC) has two structural breaks in both chambers.⁶⁴ The dashed vertical lines in Figure 5.1 correspond to the change points identified by the models and partition each chamber into three periods. The solid horizontal lines show the average coefficient value for *Same party* during each of the periods.

In the House, the structural breaks identified by the model correspond with the 14th and 22nd congresses. The 14th Congress, which convened in March 1815, coincided with the end of the War of 1812 and the dissolution of the Federalists. The model suggests that this period of reduced partisanship lasted through the 22nd Congress, which corresponds with Andrew Jackson's first term. Beginning in the 23rd Congress, at the start of Jackson's second term, a renewed, stronger (and more consistent) era of partisanship began in the House. While these changepoints cannot dispositively identify what factors reconfigured the relationship between partisanship and legislative voting behavior, the dates are broadly consistent with accounts of early American parties that emphasize the importance of the War of 1812 and the growth of mass party organization under Jackson.

The patterns are somewhat different in the Senate, where the 25th and 30th congresses are identified as the structural breaks. Between these two congresses, partisanship was much

⁶³It is important to note that our coefficients are measured with error; as with Spirling (2012), our use of these estimates in the change point model does not account for this uncertainty. While we suspect that incorporating uncertainty may not materially affect the locations of the breakpoints due to the relatively small standard errors (especially in the House), developing a change point model to accommodate measurement uncertainty is an important endeavor for future research.

⁶⁴Following standard practice, we fit the models while requiring a minimum segment size of 15% of the time series, or five congresses. Fit statistics are shown in Figures 5.4 and 5.5. In addition, we calculated the confidence intervals on the chosen break dates. The confidence interval on the first House breakpoint is from the 13th through the 22nd Congress while the confidence interval on the second break ranges from the 20th to the 23rd Congress. For the Senate, the confidence interval on the first break is from the 21st through 26th Congress while the interval for the second break is from the 29th through 34th Congress.

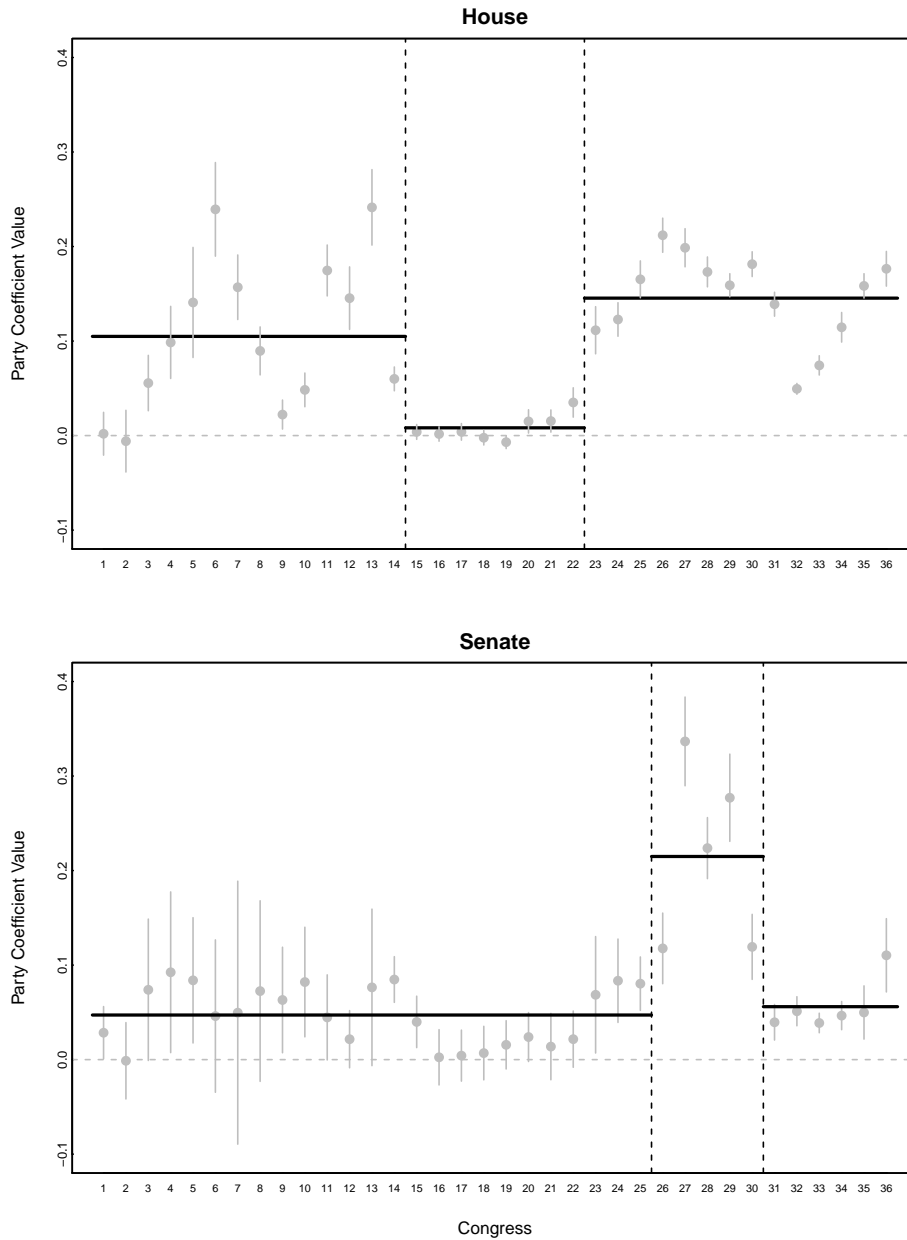
more strongly associated with legislative behavior than in the periods before and after this brief interlude, and is an exception to the general pattern of a relatively weak association between partisanship and legislative behavior in the antebellum Senate. These results also show a Senate that appears further removed from the partisan developments that seem to be associated with legislative voting patterns in the House. We also note, though, that the first extended filibuster (lasting three weeks) occurred during the 25th Congress on a bank bill sponsored by Henry Clay (Binder and Smith 1997), while the end of this period of more intense partisanship coincided with the conclusion of the Mexican-American War which had generated fierce disagreement between Democrats and Whigs. In general, however, the figure reveals considerable continuity in the relationship between Senate voting behavior and partisanship despite the emergence and development of mass party organizations and increasingly partisan institutions in the House.

The structural breaks identified by our change point model allow us to study the evolution of legislative voting behavior across the antebellum Congress. We used the model specifications from Table 1 to study the predictors of legislative behavior in each chamber using the breakpoints described above. These results are shown in the top panel of Table 5.2. In the House, our findings show that partisanship was of roughly similar importance for structuring legislative behavior in both the first and third periods identified by the change point model. In each of these periods, moreover, partisanship's importance was an order of magnitude greater than it was in the second period identified by the change point model.

We contrast the findings based on our estimated structural breaks with the results we obtain when using Jenkins and Stewart's (2012) description of the three eras of party organization during the antebellum period.⁶⁵ These findings are shown in the bottom panel of Table 5.2. While the dates of our structural breaks generally correspond with the epochs

⁶⁵Jenkins and Stewart (2012, 13) describe the first period, 1789-1811, as "the least institutionalized period of organizational politics," as congressional leadership positions were infrequently contested and held few important powers. In the second period, 1811-1839, competition for leadership positions gained intensity as party organizations increasingly sought to use these positions for partisan benefits. They mark the third

Figure 5.1: Structural Breaks in Partisanship and Legislative Voting Behavior



Plot shows the coefficient estimates when estimating regressions of legislative voting behavior on shared partisanship separately for each congress and political party in gray. The dashed vertical lines correspond with the estimated structural breaks in the coefficient estimates. The solid horizontal lines are intercepts for each section of the data.

identified by Jenkins and Stewart, the results indicate that our periods correspond with more dramatic changes in the importance of partisanship, as the coefficients for *Same Party* are less variable across the models that are based on the periods of party organization identified by Jenkins and Stewart.

We find even more dramatic differences in identifying the correlates of Senate behavior when comparing model results based on the estimated structural breakpoints and the Jenkins/Stewart eras of party organization. Aside from a single decade (roughly the 1840s), our breakpoints suggest that partisanship was a rather meager (though statistically significant) predictor of voting behavior. Had we used the Jenkins and Stewart eras, however, we would have found that partisanship was significantly more important by the last two decades of the antebellum era than it was in the Senate's first half-century.

Altogether, these findings suggest that developments in mass party organization outside the U.S. Congress did not always map perfectly onto changes in legislative behavior. They also further underscore the importance of incorporating behavior from the parties-in-government when accounting for processes of party development.

In additional analyses reported in the Supplementary Appendix, we considered how the coefficients for the *Same region* variable varied across time and chambers.⁶⁶ Consistent with accounts that describe how local party organizations built networks to ameliorate regional conflict (Silbey 1981, 1991; Skowronek 1982), we find that the coefficients for *Same region* are generally smaller [larger] in magnitude during congresses in which shared partisanship was more [less] important. This pattern ends around 1850 with the breakdown of the second party system, and the coefficients for *Same region* increased until the Civil War as the parties could no longer manage regional differences. The findings are also consistent with other accounts that emphasize how regional considerations often played a greater role in shaping

period from 1839 through the end of the Civil War, during which party leaders and activists gained new means of enforcing party discipline among rank and file legislators.

⁶⁶See Figure 5.6.

Table 5.2: Periods of Legislative Voting Behavior in the U.S. Congress

	<i>Breakpoint Model Periods</i>					
	<i>House</i>			<i>Senate</i>		
	1789-1817	1817-1833	1833-1861	1789-1839	1839-1849	1849-1861
Same Party	0.117* (0.002)	0.009* (0.001)	0.143* (0.001)	0.036* (0.003)	0.219* (0.004)	0.058* (0.003)
Same Region	0.045* (0.002)	0.067* (0.001)	0.044* (0.001)	0.058* (0.004)	0.031* (0.006)	0.062* (0.004)
Same State	0.048* (0.003)	0.043* (0.002)	0.023* (0.001)	0.098* (0.010)	0.048* (0.016)	0.037* (0.011)
Shared Committee	0.028* (0.004)	0.008* (0.003)	0.001 (0.001)	0.006 (0.005)	-0.004 (0.005)	-0.001 (0.003)
Service Overlap	-0.004 (0.002)	-0.016* (0.001)	-0.012* (0.001)	-0.0004 (0.003)	-0.006 (0.004)	-0.003 (0.003)
Constant	0.363* (0.005)	0.394* (0.002)	0.313* (0.001)	0.436* (0.014)	0.259* (0.006)	0.342* (0.004)
N	45,070	59,439	246,376	10,041	3,793	6,189
MSE	0.03	0.02	0.01	0.03	0.02	0.01
R ²	0.14	0.08	0.33	0.07	0.41	0.13
	<i>Jenkins/Stewart Periods</i>					
	<i>House</i>			<i>Senate</i>		
	1789-1811	1811-1839	1839-1861	1789-1811	1811-1839	1839-1861
Same Party	0.098* (0.006)	0.066* (0.003)	0.143* (0.002)	0.060* (0.011)	0.034* (0.005)	0.111* (0.007)
Same Region	0.048* (0.005)	0.051* (0.003)	0.047* (0.001)	0.037* (0.012)	0.063* (0.008)	0.049* (0.005)
Same State	0.056* (0.006)	0.041* (0.003)	0.020* (0.002)	0.126* (0.019)	0.085* (0.013)	0.051* (0.010)
Shared Committee	0.032* (0.006)	0.009* (0.002)	0.001 (0.001)	0.186* (0.025)	0.003 (0.004)	-0.002 (0.003)
Service Overlap	-0.002 (0.004)	-0.011* (0.002)	-0.016* (0.002)	0.020* (0.009)	-0.003 (0.003)	-0.006* (0.002)
Constant	0.368* (0.008)	0.361* (0.007)	0.307* (0.002)	0.434* (0.014)	0.388* (0.014)	0.317* (0.007)
N	29,583	116,947	221,824	2,661	8,370	9,775
MSE	0.03	0.02	0.01	0.03	0.02	0.01
R ²	0.11	0.12	0.33	0.09	0.07	0.20

Note: Entries are linear regression coefficients with standard errors clustered on legislator in parentheses. Indicators for each Congress are also included but not reported. * $p < .05$.

congressional voting patterns in the absence of well-organized political parties (Poole and Rosenthal 1997).

Were Some Party Ties Stronger than Others?

In a final set of analyses, we explore temporal variation across parties. Several accounts emphasize the varying strengths of party commitments in the antebellum period. For instance, (Jenkins 2011) notes the hard-line partisan nature of Federalist Speakers of the House, while Democratic-Republican Speakers governed the House with less partisan fervor. Discussing the second party system, Aldrich (1995, 135) points out that the Whig Party was organized more around “personal commitment and leadership of moderates” rather than institutionalized sources of party discipline. Accounts such as these suggest that the association between partisanship and legislative behavior could have varied in strength across political parties.

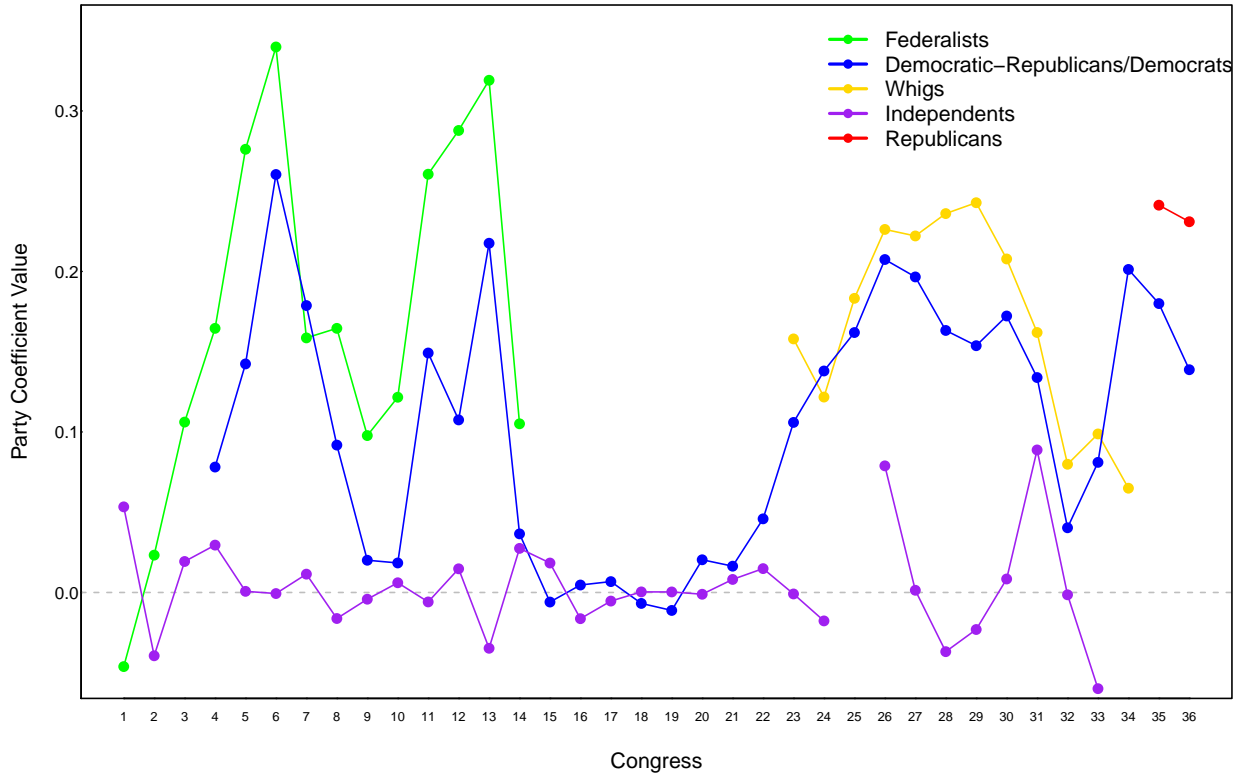
We estimated separate models for each Congress and allowed the coefficient for shared partisanship to vary across each of the major parties. We focused on the House due to the small number of legislator-pairs within each party in the Senate. The results are shown in Figure 5.2. Two key findings stand out. First, in general, the magnitudes of the relationship are quite similar when evaluating the most significant party cleavages in each period. Between the 4th and 14th Congresses, the coefficient estimates for shared partisanship among Federalists and Democratic-Republicans generally parallel each other. Though the magnitude of the coefficients is generally larger for the Federalists, the differences are not statistically distinguishable from zero. (Confidence intervals of the coefficient estimates are not shown in the figure for visual clarity.) During the second party system, partisanship was roughly equally influential for the behavior of Democrats and Whigs; any differences in the coefficients are not statistically distinguishable from zero.

The second important finding from the figure is that pairs of legislators in which both identified as Independents or were unaffiliated with any party did not vote together at higher

rates. The coefficient estimates for these legislators are almost always zero or very close to zero, and are clearly smaller in magnitude relative to the coefficients for partisans. This result indicates that legislators who were united by their absence of partisanship exhibited no propensity to vote together at higher rates, and points to the importance of party membership as a key factor that structured legislative voting behavior in the antebellum House. Though not dispositive, the absence of any systematic patterns of shared voting behavior between Independents also provides suggestive evidence that party membership affected legislative behavior above and beyond individual legislators' preferences.

In sum, our findings indicate that partisanship varied in systematic ways across chambers, time, and parties for the first 70 years of U.S. history. These patterns appear to reflect predictable responses to important partisan developments both inside of and external to Congress. In the country's infancy, political parties helped lend structure to individual-level and aggregate patterns of legislative behavior, though this process was interrupted by the emergence and disappearance of major political parties that coincided with the country's first three party systems.

Figure 5.2: Variation across Parties in the U.S. House, 1789-1861



Plot shows the coefficient estimates when estimating regressions of legislative voting behavior on shared partisanship separately for each congress and political party. All other variables included in the models reported in Table 1 are also included in the models. The points are the coefficient estimates. The horizontal line at zero indicates the null hypothesis of no association between shared partisanship and legislator agreement scores.

5.4 Conclusion

The American Founders viewed political parties with antipathy. The condemnation of parties from Washington, Jefferson, Madison, and others suggests widespread agreement among early Americans that, as Lord Bolingbroke (1870, 215) argued a half-century earlier in England, “Party is a political evil, and faction is the worst of all parties.” The realities of collective decision-making, however, quickly led to party organization within Congress. Despite wide scholarly interest among political scientists and historians in documenting, explaining, and periodizing the development of the American two-party system, considerably less has been known about the association between partisanship and legislative behavior in the early republic.

Overall, our results show that partisanship was a significant and important predictor of legislative behavior in the antebellum U.S. Congress. Yet this aggregate relationship misses important temporal and cross-chamber variation. As the chamber whose members were closer to mass electorates, voting records in the House were more strongly associated with partisanship than in the Senate. We also find several distinct periods of partisan voting behavior, particular in the House. Our findings are consistent with the perspective offered by Sharp (1989, 7), who argued that historians have often “misread the history of the United States by assuming that American political party development has been linear and that the modern two-party system can trace its origins to the 1790s.”

The results reported here suggest ways in which macro-level political developments in American political history shaped micro-level behavior. While Congress, and particularly the House, introduced a number of institutional changes that had important implications for the partisan organization of the chamber, members of Congress were not immune to partisan developments happening across the nation. As mass party organizations offered ambitious office-seekers a means for achieving their electoral goals, partisanship played an increasingly

important role in structuring legislative behavior. Our research thus helps illuminate how the rise of party organizations was associated with legislative coalitions and patterns of governance.

Our findings raise several important questions about the nature of the electoral connection in antebellum America. Recent scholarship has provided intriguing evidence of an electoral connection in the antebellum period (e.g., Carson and Engstrom 2005), and future research could study how individual legislators used partisan connections to achieve their goals, particularly on key partisan issues. It could be especially enlightening to explore how partisan support in Congress affected subsequent electoral performance in this early period.

Finally, we note that our empirical strategy does not permit us to reach strong causal conclusions about how partisan affected legislative voting behavior. Additional scholarship, both theoretical and empirical, can provide important insight into the conditions under which the partisan organization of legislatures affects roll call voting patterns and on what issues. In addressing these questions, we encourage future scholarship to pay particular attention to how these patterns have varied across periods of U.S. history.

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5.6 Appendix

Table 5.3: Legislator-Pairs by Congress and Chamber

Congress #	House	Senate
1	910	136
2	878	253
3	2,507	276
4	2,036	190
5	2,186	210
6	2,554	253
7	2,340	210
8	4,182	171
9	4,325	406
10	3,857	325
11	3,808	231
12	3,967	435
13	5,784	153
14	5,736	253
15	6,524	465
16	6,492	465
17	6,718	666
18	9,631	780
19	9,603	561
20	9,302	820
21	8,839	780
22	8,854	741
23	10,945	666
24	12,588	595
25	11,964	990
26	12,660	741
27	11,352	741
28	19,503	861
29	21,528	820
30	22,791	630
31	21,945	1,275
32	21,736	1,128
33	24,531	1,128
34	24,090	1,326
35	22,578	1,431
36	19,110	1,176

Table 5.4: Number of Roll Call Votes by Congress and Chamber

Congress #	House	Senate
1	109	100
2	102	52
3	69	79
4	83	86
5	155	202
6	96	120
7	142	88
8	132	150
9	158	88
10	237	91
11	293	167
12	314	204
13	352	263
14	113	189
15	106	132
16	147	120
17	95	91
18	94	178
19	111	234
20	233	238
21	273	277
22	462	422
23	327	229
24	459	439
25	475	410
26	751	334
27	974	822
28	597	305
29	642	383
30	478	344
31	572	499
32	455	358
33	607	546
34	729	449
35	548	702
36	433	607

Table 5.5: Legislative Voting Behavior in the U.S. Congress, 1789-1861, Alternative Party Measure

	House	Senate
Same Party	0.127* (0.002)	0.103* (0.005)
Same Region	0.045* (0.001)	0.051* (0.004)
Same State	0.028* (0.002)	0.077* (0.008)
Shared Committee	0.006* (0.001)	0.002 (0.002)
Service Overlap	-0.013* (0.002)	-0.005* (0.002)
Constant	0.330* (0.001)	0.411* (0.013)
N	335,354	20,338
MSE	0.01	0.02
R ²	0.25	0.19

Note: Entries are linear regression coefficients with standard errors clustered on legislator in parentheses. Indicators for each Congress are also included but not reported. * $p < .05$.

Table 5.6: Legislative Voting Behavior in the U.S. Congress, 1789-1861, Alternative Region Measure

	House	Senate
Same Party	0.114* (0.002)	0.076* (0.004)
Same Region	0.067* (0.002)	0.054* (0.004)
Same State	0.038* (0.002)	0.097* (0.007)
Shared Committee	0.006* (0.001)	0.0002 (0.002)
Service Overlap	-0.010* (0.001)	-0.003 (0.002)
Constant	0.334* (0.008)	0.418* (0.013)
N	371,124	22,288
MSE	0.01	0.02
R ²	0.25	0.16

Note: Entries are linear regression coefficients with standard errors clustered on legislator in parentheses. Indicators for each Congress are also included but not reported. * $p < .05$.

Table 5.7: House Summary Statistics

	Mean	SD	Min	Max
Agreement scores	0.39	(0.14)	0.03	0.96
Same party	0.43	(0.50)	0	1
Same region	0.21	(0.41)	0	1
Same state	0.07	(0.25)	0	1
Shared committee	0.04	(0.20)	0	1
Service overlap	2.87	(3.60)	0	29.00

Table 5.8: Senate Summary Statistics

	Mean	SD	Min	Max
Agreement scores	0.41	(0.15)	0.04	0.90
Same party	0.41	(0.49)	0	1
Same region	0.18	(0.38)	0	1
Same state	0.02	(0.15)	0	1
Shared committee	0.22	(0.42)	0	1
Service overlap	7.17	(5.69)	0	24.75

Table 5.9: Legislative Voting Behavior in Congress, 1789-1861

	House	Senate
Same Party	0.290* (0.005)	0.184* (0.010)
Same Region	0.119* (0.003)	0.124* (0.009)
Same State	0.067* (0.004)	0.160* (0.015)
Shared Committee	0.013* (0.003)	0.000 (0.006)
Service Overlap	-0.034* (0.003)	-0.011* (0.005)
Constant	-1.019* (0.018)	-0.865* (0.028)
N	368,354	22,288

Note: Entries are negative binomial regression coefficients with standard errors clustered on legislators in parentheses. Indicators for each Congress are also included but not reported.

* $p < .05$.

Table 5.10: Legislative Voting Behavior in the U.S. Congress: Alternative Dependent Variable

<i>Dependent variable: Difference in DW-NOMINATE Scores</i>				
	<i>House Models</i>		<i>Senate Models</i>	
	First Dimension	Second Dimension	First Dimension	Second Dimension
Same Party	-0.252* (0.004)	-0.030* (0.004)	-0.181* (0.009)	-0.028* (0.010)
Same Region	-0.092* (0.003)	-0.142* (0.005)	-0.083* (0.009)	-0.183* (0.013)
Same State	-0.024* (0.003)	-0.029* (0.004)	-0.100* (0.016)	-0.063* (0.017)
Shared Committee	0.003 (0.002)	-0.008* (0.004)	0.011* (0.005)	-0.006 (0.008)
Service Overlap	0.031* (0.004)	0.025* (0.008)	0.015* (0.006)	0.053* (0.009)
Constant	0.569* (0.025)	0.633* (0.039)	0.623* (0.043)	0.757* (0.054)
N	368,354		22,288	
MSE	0.07	0.18	0.11	0.33
R ²	0.21	0.04	0.14	0.05

Note: Entries are linear regression coefficients with standard errors clustered on legislator in parentheses. Indicators for each Congress are also included but not reported. * $p < .05$.

Table 5.11: Legislative Voting Behavior in the U.S. House, 1789-1861: Including Lagged DW-NOMINATE Scores

	House
Same Party	0.036* (0.002)
Same Region	0.024* (0.002)
Same State	0.022* (0.003)
Shared Committee	0.011* (0.002)
Service Overlap	-0.004* (0.002)
Difference in DW-NOMINATE scores (lagged)	-0.278* (0.005)
Constant	0.524* (0.014)
N	68,826
MSE	.11
R ²	.45

Note: Entries are linear regression coefficients with standard errors clustered on legislator in parentheses. Indicators for each Congress are also included but not reported. * $p < .05$.

Figure 5.3: Distribution of Agreement Scores, 1789-1861

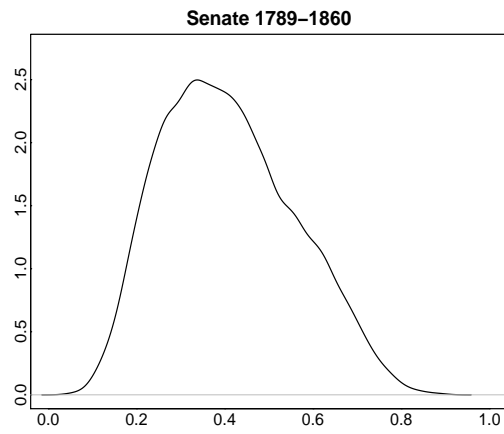


Figure 5.4: Fit Statistics for Breakpoint Model in the House

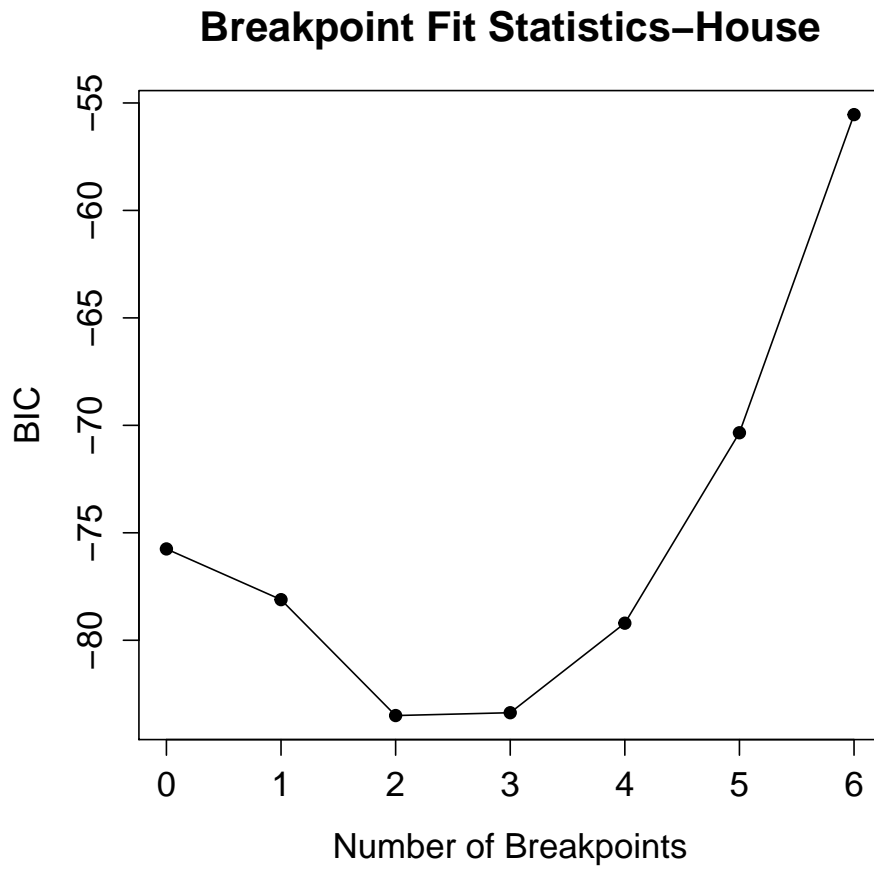


Figure 5.5: Fit Statistics for Breakpoint Model in the Senate

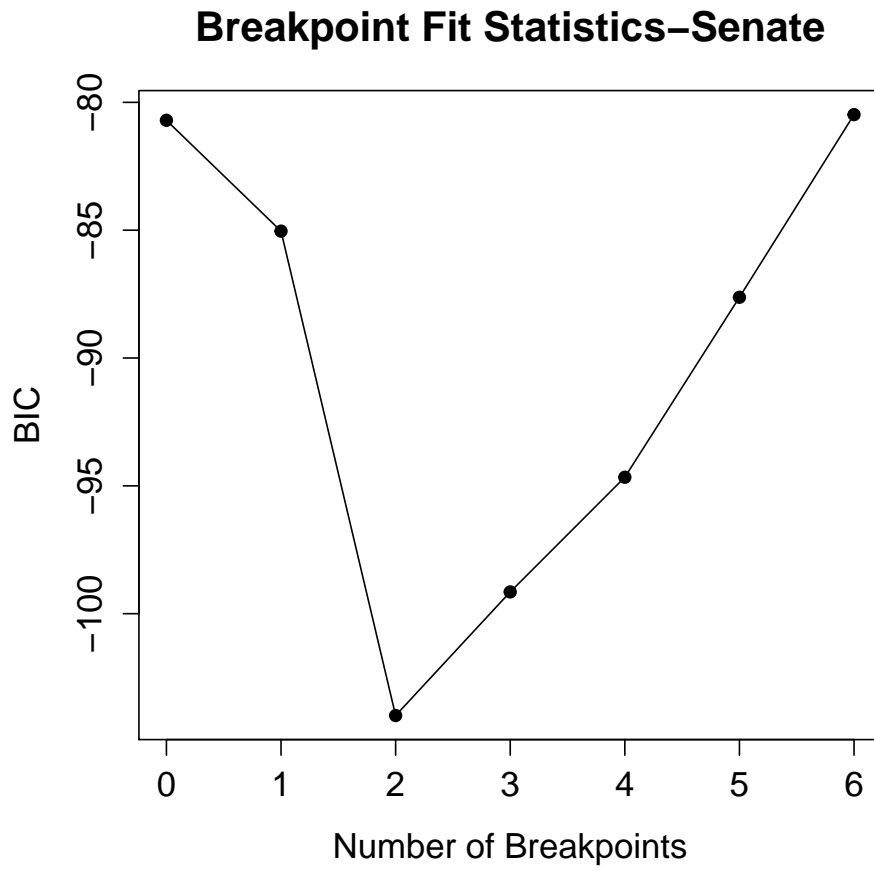
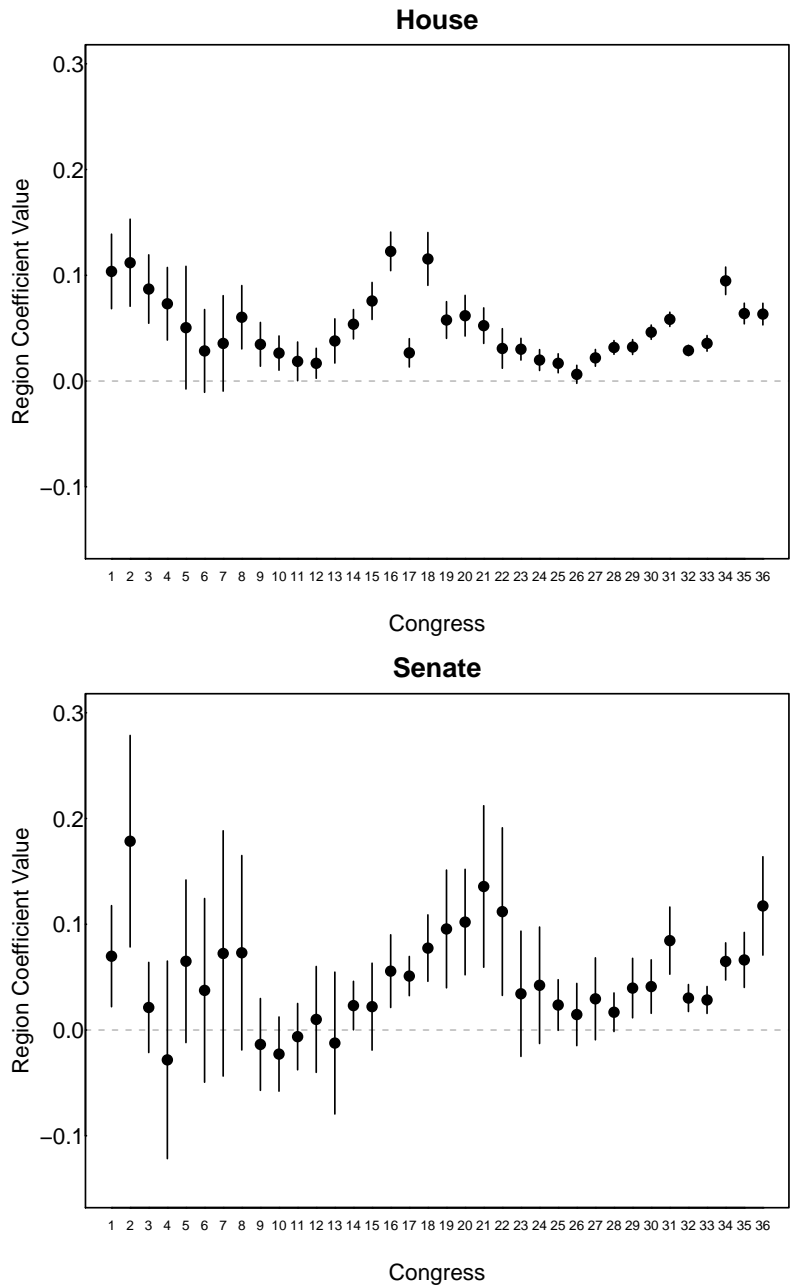


Figure 5.6: Regional Influences on Voting Behavior in the U.S. Congress, 1789-1861



Plots show the coefficient estimates when estimating regressions of legislative voting behavior on shared region separately for each congress. All other variables included in the models reported in Table 1 are also included in the models. The points are the coefficient estimates and the vertical lines are the 95 percent confidence intervals. The horizontal line at zero indicates the null hypothesis of no association between shared region and legislator agreement scores.

Chapter 6

Federal Register Data Documentation

To date, most studies of rulemaking utilize data taken from the Unified Agenda. The Unified Agenda is a semi-annual accounting of federal regulatory activity. The Regulatory Information Service Center (a part of GSA) compiles the Unified Agenda in conjunction with the Office of Information and Regulatory Affairs (OIRA) within OMB.⁶⁷ The Unified Agenda data has several upsides. Apart from being widely used and accepted, the Unified Agenda notes the significance level of the rules and includes other information about various tests the rules underwent (such as environmental impact assessments). The main problem with the Unified Agenda is its incompleteness. Rules that are started and completed (many direct final rules) between reporting periods may not appear, for example. Moreover, agencies self-report their activities and face no penalty for excluding information (O’Connell 2008). Because all rules must be printed in the *Federal Register* and because it is the official means of notifying the public of regulatory activity, the *Federal Register* is the most complete source of regulatory activity. As O’Connell (2011) notes: “In an ideal world, empirical studies of rulemaking would use individual agency rule submissions to the *Federal Register*. Since virtually all rules are published in the *Federal Register*, there would be no selection issues as to what rules

⁶⁷More information from this website: https://www.reginfo.gov/public/jsp/eAgenda/StaticContent/UA_About.jsp

were included” (490). She goes on to note that *Federal Register* data has been prohibitive to collect leading to more limited studies of short time periods and fewer agencies. Finally, using a dataset based on the *Federal Register*, Nou and Stiglitz (2015) find that the Unified Agenda has severe issues with underreporting of proposed rules and may even exhibit politically strategic underreporting.

6.1 Collection Method

As mentioned above, Nou and Stiglitz (2015) also collected a dataset of rulemaking activity based on the *Federal Register*. Their data set is based on “machine-readable *Federal Register* entries from a variety of sources” (747). They search headings for proposed rules and exclude entries that seem to be for proposed hearings or other activities. My data set covers fewer years but uses a different collection method and includes more information. My dataset also focuses on final rules rather than proposed rules.

To collect the data, I utilized the *Federal Register* .xml files held by the Government Printing Office. An example of a rule from the .xml file is available in the appendix along with the Python code used to extract all of the rules.⁶⁸ There is one .xml for every business day which includes everything published in the *Federal Register* for that day. Helpfully, .xml files contain tags of each type of document, so I could extract individual document types. I used this to obtain final rules (including direct final rules and other rule changes), but the same process could be used to obtain Notices of Proposed Rulemaking and other agency documents published in the *Federal Register*. Within each document type, there are tags for various pieces of information about the rule itself—the date it was published, the effective date of the rule, the signatories on the rule and more (as described in the next section). Using Python, I extracted the information in each relevant tag and produced a .csv file of these data for each final rule published in the *Federal Register* from 2000-2015. There are a total

⁶⁸Available here: <https://www.gpo.gov/fdsys/browse/collection.action?collectionCode=FR>

of 61,216 final rule documents. This collection could easily be extended to the present as new *Federal Register* files are quickly placed in the repository. Though I collected data about final rules, the *Federal Register* also contains the text of final rules as well. The script I used to collect the data is available in the dataverse. It should be noted, however, that the data that came directly from this script have been partially cleaned, so if the script were to be used to collect new data, these would need to be cleaned as well. (Tags removed, for example).

As is visible from the rule example in the appendix, there are tags at various levels for different information types. For example, the subagency that produced the rule can be found between <SUBAGY> and </SUBAGY>. One challenge in the collection was dealing with rules that have multiple iterations of the same variable (e.g. multiple people signed the rule and each have a tag). This was solved by adding every iteration of one variable type into one cell. It is difficult to solve this problem by incorporating multiple cells because some have many signatories but most have one or two.

6.2 Data Concerns

Though these data have several upsides, there are also some concerns to consider. First, it is not easy to connect with other rule data sources. Though the RIN can be used to identify and track rules, many rules do not utilize RINs. This can also make it difficult to know the significance level of the rule or other tests (e.g. environmental impact) it has undergone. That said, the .xml documents provide more preamble and rule text information that could be analyzed in the future if a researcher was inclined to collect it from the .xml documents. Another future challenge of these data is that, while they possess a lot of information, there are also occasionally errors in inputs (information input into the wrong tag, for example) or differences in the way a particular agency was input. For example, the Federal Aviation Administration might be listed as “Department of Transportation (FAA), Federal Aviation Administration, Federal Aviation Administration (DOT),” etc. Finally, rules can appear

multiple times in the same dataset if the rule was considered and finalized multiple times. This is sometimes additionally challenging because some of these rules do not have RIN numbers that would make them easier to track through time. That said, multiple final actions taken over time on a rule should not necessarily be disqualified. Sometimes these changes may be substantial enough to be considered new rules.

6.3 Variable Descriptions/Codebook

Below is a listing of the variables in the dataset and their descriptions, including potential work that will need to be done to use the variable in analysis. There is no "codebook" in the ANES sense because the variables are simply listed as the text reported, not as variables coded with numbers that would need to be decoded.

Date: The date of publication in the *Federal Register* in YYYY-MM-DD format.

Agency: The agency that produced the rule. If the agency is within a department, this is usually the department, though sometimes no department is listed. If an independent agency, it will be listed here. See cleaned agency for a better version of this and the next variable combined. I left in this variable information for completeness and in case department is the relevant level of analysis rather than subunit.

Subagency: The subagency that produced the rule. This is the unit that actually produced the rule if it is within a department. For example, the Farm Service Agency is within the Department of Agriculture. It will be NA in about a third of cases because independent agencies are listed under the agency section instead. It should be noted that the *Federal Register* did not input these data perfectly (e.g. differences in how to list the same agency, a spelling error or two) and there are some strange instances of multiple agencies sponsoring

the same rule that appear oddly. See Cleaned Agency for a cleaner, combined version of the two variables above.

Cleaned Agency: This is my take on cleaning the agency data. I utilized the subagency header when possible and grabbed the agency variable when the subagency variable was not defined. For example, if the agency was listed as “Department of Transportation” and the subagency as “Federal Aviation Administration,” this variable will be “Federal Aviation Administration.” If agency is listed as “Environmental Protection Agency” and subagency is blank, this variable will be “Environmental Protection Agency.” This creates a more unified listing of the rule producer(s) at the lowest possible level. A small number of rules have multiple creators. Often these are procurement rules from DOD/NASA/GSA. I would recommend excluding rules with more than two or three sponsors from analysis or find a more appropriate way to list them.

CFR: This is the parts of the Code of Federal Regulations affected by the rule. Sometimes this includes multiple sections as well as multiple parts within the same section. There are a handful of mistakes from the way the data were originally input that remain in this variable and will need to be cleaned.

Signature Date: The date the final rule was signed.

Signatory Name: The name of the person or people who signed the rule.

Signatory Title: The job title of the person or people who signed the rule.

RIN: The rule identification number. Not all rules have one. If it does, it should be trackable with sources like Regulations.gov, the Unified Agenda, etc.

FRDOC: The *Federal Register*’s document identification.

Effective Date: The date the rule is supposed to go into effect. Unfortunately, this is in a text format because agencies input this in a variety of ways. Dates would need to be extracted from text. For example, some rules simply list the date while others have some text before the date. Some rules may have multiple relevant dates. Agencies sometimes switched between using this tag and the following tag. About one third of rules do not have anything listed.

Important Dates: This includes important dates. This sometimes includes effective dates although less frequently than the previous variable. About two thirds of rules do not have anything listed here. Could be combined with Effective Date. Only about 1400 are NA on both, which suggests agencies switched between the two in most cases.

Addresses: Has address for questions or for where paper comments may be sent.

Subject List: This is a very useful list of subjects contained in the rule. This is either coded by the agency or the *Federal Register*, I'm not sure which. The difficulty with the subject list is that it is difficult to know how many subjects are contained in each rule. It would be necessary to identify situations where the subject is the same but described in a slightly different way. It may be possible to identify all possible subjects and dummy code each subject for each rule. It will take some work to a

AUTH: This is a list of authorizing material for the rule. This includes areas of the U.S. Code, references to specific public laws, and executive orders.

Agency2: This is another listing of agency provided in the listing. This one has more issues with language differences than most of the others.

Action: The type of rule or action being completed. Includes final rules, direct final rules, and much more. Could probably be consolidated into fewer categories than the many given.

Summary: This is a provided summary of the rule. About 4,700 do not have summaries.

First Page: The page of the *Federal Register* on which the rule starts.

Last Page: The page of the *Federal Register* on which the rule ends. May be the same as the first page for a short rule.

Rule Title: The title of the rule.

6.4 Simple Statistics and Plots

Figure 6.1 shows the number of all final actions and final rules (those tagged as final rules in the action category rather than direct final rules, interim final rules, or other such actions) over time.

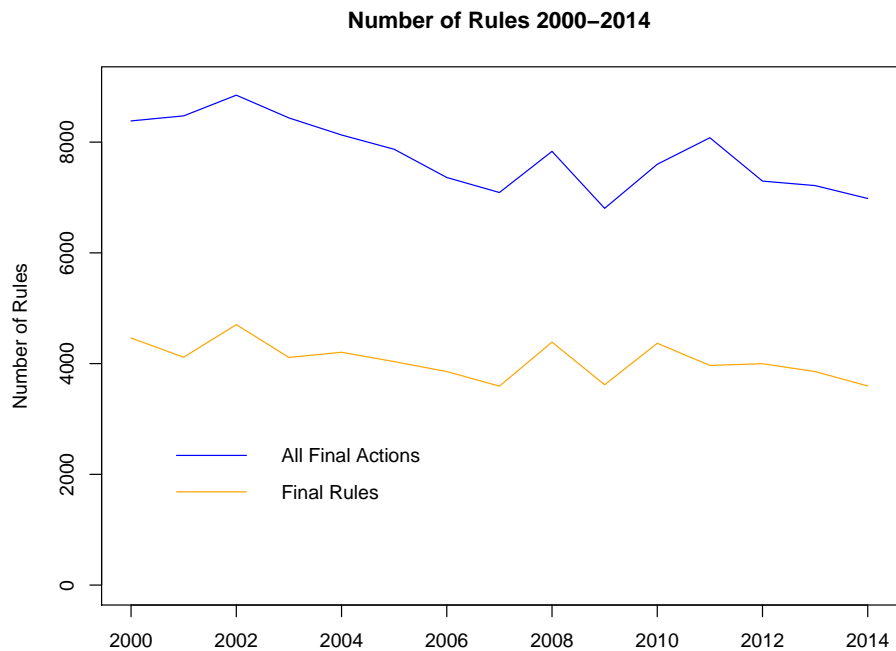


Figure 6.1: Number of All Final Actions and Final Rules Over Time.

Table 6.1 shows the top 20 individual rule producers (where a rule is all rules tagged as final in the .xml including direct final rules, temporary rules, and corrections) from 2000-2015. This excludes team producers. The Department of Defense and NASA often co-produce rules and sometimes involve other agencies such as GSA. These seem to be procurement regulations.

The Federal Aviation Administration is the largest producers of final actions each year. This is consistent with my previous research on the Regulations.gov data and consistent with Nou and Stiglitz's (2015) Proposed Rules dataset. The second largest producer is the EPA followed by the Coast Guard. The Coast Guard produces a lot of temporary deviations other smaller regulations. It is also worth noting that independent regulatory commissions like the FCC and SEC make a large number of regulations that are often excluded from other sources (including my own Regulations.gov data) because they are typically not subject to OIRA review.

As can be seen in Table 6.2, there are a variety of different action types listed. Many of these categories can probably be combined but are left in tact for completeness. (e.g. "Final Rule; Correction" is likely similar to "Correcting Amendment".) The top ten categories make up about 75 percent of the rules in the data. Over half of the rules are listed as final rules. Before using, it would be prudent to check for typographical errors in the rule action listing.

Table 6.3 lists the 25 most common subjects tagged in rules. As mentioned above, the subjects lists are somewhat messy and will require cleaning to use most effectively. For this table, I cleaned up the subjects somewhat and split them by commas (as this is how multiple subjects in individual rules are divided). I then counted the most common uses. AS is visible, reporting and recordkeeping is the most common subject listed on a rule followed by incorporation by reference. Many of the top subjects list airworthiness, aircraft, or aviation. Given that the FAA is the top rule producer, this is not surprising. An investigator may wish

Table 6.1: Table of the top 20 individual rule producers 2000-2015.

Agency	Number of Rules
Federal Aviation Administration	12,275
Environmental Protection Agency	8,681
Coast Guard	6,051
National Oceanic and Atmospheric Administration	4,665
Federal Communications Commission	3,061
Food and Drug Administration	1,886
Internal Revenue Service	1,346
Agricultural Marketing Service	1,241
Federal Emergency Management Agency	1,137
Animal and Plant Health Inspection Service	939
Fish and Wildlife Service	801
Department of Defense (no subagency listed)	612
Defense Acquisition Regulation System	542
Securities And Exchange Commission	508
Department of Veterans Affairs	485
Nuclear Regulatory Commission	474
National Highway Traffic Safety Administration	466
Federal Energy Regulatory Commission	461
Postal Service	415
Office of Personnel Management	407

Table 6.2: Top ten rule action types. These categories make up about 75 percent of all rules in the data.

Action Type	Number of Actions in Category
Final Rule	31,574
Direct Final Rule	2,560
Temporary Final Rule	2,493
Final Rule; Request for Comments	1,864
Interim Rule; Request for Comments	1,541
Final Rule; Correction	1,377
Notice of Temporary Deviation from Regulations	935
Interim Rule	923
Temporary Rule; Closure	916
Correcting Amendment	736

to create a single subject that lists any of these categories, especially since a single rule may list all of these subjects. Air pollution, ozone, pesticides, and environmental protection are not surprising either, considering the proliferation of EPA regulations.

Table 6.3: List of 25 Most Common Subjects Tagged in Rules

Subject	Count
Reporting and recordkeeping requirements	17,828
Incorporation by reference	12,099
Aircraft	7,520
Aviation safety	7,481
Environmental protection	7,337
Safety	6,820
Administrative practice and procedure	6,759
Air transportation	6,687
Air pollution control	4,708
Intergovernmental relations	4,287
Navigation (water)	3,072
Marine safety	2,842
Waterways	2,594
Security measures	2,471
Ozone	2,436
Airspace	2,411
Harbors	2,407
Agricultural commodities	2,134
Navigation (air)	2,131
Volatile organic compounds	1,933
Imports	1798
Pesticides and pests	1778
Nitrogen dioxide	1762
Government procurement	1663
Particulate matter	1639

6.5 References

- O’Connell, Ann Joseph. 2008. “Political Cycles of Rulemaking: An Empirical Portrait of the Modern Administrative State.” *Virginia Law Review* 94(4):889-986.
- O’Connell, Ann Joseph. 2011. “Agency Rulemaking and Political Transitions.” *Northwestern University Law Review* 105(2):471-534.
- Stigliz, Edward H. and Jennifer Nou. 2015. “Strategic Rulemaking Disclosure.” *Southern California Law Review* 89: 733-792.

6.6 Appendix

6.6.1 Rule File Example

This is an example of the part of the .xml document dedicated to a single rule. As you can see, there are various tags that mark out categories for each rule.

```
<RULE>
  <PREAMB>
    <AGENCY TYPE="N">DEPARTMENT OF HEALTH AND HUMAN SERVICES</AGENCY>
    <SUBAGY>Food and Drug Administration</SUBAGY>
    <CFR>21 CFR Parts 1, 11, 16, 106, 110, 114, 117, 120, 123, 129, 179, and
      211</CFR>
    <DEPDOC>[Docket No. FDA-2011-N-0920]</DEPDOC>
    <RIN>RIN 0910-AG36</RIN>
    <SUBJECT>Current Good Manufacturing Practice, Hazard Analysis, and
      Risk-Based Preventive Controls for Human Food; Clarification of
      Compliance Date for Certain Food Establishments</SUBJECT>
    <AGY>
      <HD SOURCE="HED">AGENCY:</HD>
      <P>Food and Drug Administration, HHS.</P>
    </AGY>
    <ACT>
      <HD SOURCE="HED">ACTION:</HD>
      <P>Final rule; clarification of compliance date for certain food
        establishments.</P>
    </ACT>
    <SUM>
      <HD SOURCE="HED">SUMMARY:</HD>

      <P>The Food and Drug Administration (FDA or we) is clarifying the
        compliance date that we provided for certain food establishments
        subject to a final rule that published in the <E T="04">Federal
        Register</E> of September 17, 2015. Among other things, that final
        rule amended our regulation for current good manufacturing practice
        in manufacturing, packing, or holding human food to modernize it,
        and to add requirements for domestic and foreign facilities that are
        required to register under the Federal Food, Drug, and Cosmetic Act
        (the FD&C Act) to establish and implement hazard analysis and
        risk-based preventive controls for human food. We are taking this
        action in response to requests for clarification of the compliance
        date for facilities that manufacture, process, pack, or hold grade
        ?A? milk or milk products and that are regulated under the National
        Conference on Interstate Milk Shipments (NCIMS) system.</P>
```

</SUM>

<EFFDATE>

<HD SOURCE="HED">DATES:</HD>

<P>The compliance date under the Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Human Food rule (published on September 17, 2015 at 80 FR 55908) for grade ?A? milk and milk products covered by NCIMS under the PMO is September 17, 2018.</P>

</EFFDATE>

<FURINF>

<HD SOURCE="HED">FOR FURTHER INFORMATION CONTACT:</HD>

<P>Jenny Scott, Center for Food Safety and Applied Nutrition (HFS-300), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, 240-402-2166.</P>

</FURINF>

</PREAMB>

<SUPLINF>

<HD SOURCE="HED">SUPPLEMENTARY INFORMATION:</HD>

<P/>

<HD SOURCE="HD1">I. Background</HD>

<P>In the <E T="04">Federal Register</E> of September 17, 2015 (80 FR 55908), we published a final rule entitled ?Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Human Food? (the final human preventive controls rule). Among other things, the final human preventive controls rule amended our regulation for current good manufacturing practice in manufacturing, packing, or holding human food to modernize it, and to add requirements for domestic and foreign facilities that are required to register under section 415 of the FD&C Act (21 U.S.C. 350d) to establish and implement hazard analysis and risk-based preventive controls for human food. In the preamble to the final human preventive controls rule (80 FR 55908), we stated that the rule is effective November 16, 2015, and provided for compliance dates of 1 to 3 years in most cases.<PRTPAGE P="71935"/>

</P>

<P>In Comment 214 in the final human preventive controls final rule (80 FR 55908 at 55986 to 55987), we described comments that discuss facilities that comply with the Grade ?A? PMO and are regulated under the NCIMS system, and we used the term ?PMO facilities? as an abbreviation for these facilities. As previously discussed (78 FR 3646 at 3662; January 16, 2013), the PMO is a model regulation published and recommended by the U.S. Public Health Service/FDA for voluntary adoption by State dairy regulatory agencies to regulate the production, processing, storage and distribution of Grade ?A? milk and milk products to help prevent milk-borne disease. Some comments recommended that we make full use of the existing milk safety system of State regulatory oversight for Grade ?A? milk and milk products provided through the NCIMS and the food safety requirements of the PMO. Some comments asked us to exempt PMO-regulated facilities (or the PMO-regulated part of a PMO facility that also produces food products not covered by the PMO) from the requirements of the rule for hazard analysis and risk-based preventive controls, or to otherwise determine that facilities operating in compliance with the PMO are also in compliance with those requirements. These comments suggested we could, as an interim step if we find it necessary, stay the application of these requirements to PMO-regulated facilities and work with the NCIMS cooperative program to enact any modifications to the PMO as may be needed to warrant an exemption or comparability determination. In response to these comments, we established a compliance date of September 17, 2018, for ?PMO facilities? (see Response 214, 80 FR 55908 at 55987 to 55988).</P>

<HD SOURCE="HD1">II. Clarification of the Compliance Date for Facilities Regulated Under the NCIMS System</HD>

<P>On September 10, 2015, the Office of the Federal Register made a pre-publication copy of the final human preventive controls rule available to the public through its procedures for advance display (Ref. 1). Since September 10, 2015, we have provided opportunities for stakeholders to ask questions about the rule, through webinars and through a Web portal for submission of questions (Refs. 2 and 3). Some PMO facilities, in addition to manufacturing, processing, packing, or holding grade ?A? milk or milk products, manufacture, process, pack, or hold other food subject to the final human preventive controls rule. Some of these facilities have asked us to clarify whether the extended compliance date for ?PMO facilities? applies only to grade ?A? milk and milk products covered by NCIMS under the PMO, or whether the extended compliance date applies broadly to all activities conducted by the facility (<E T="03">e.g.,</E> activities related to other food produced at the facility).</P>

<P>In this document, we are clarifying that the extended compliance date of September 17, 2018, for "PMO facilities" applies only to grade "A" milk and milk products covered by NCIMS under the PMO, and not to the manufacturing, processing, packing, or holding of other food. As we discussed in Response 214 (80 FR 55908 at 55987 to 55988), we agreed that we should make use of the existing system of State regulatory oversight for Grade "A" milk and milk products provided through the NCIMS and the food safety requirements of the PMO. We described our reasons for deciding to extend the compliance date for "PMO-regulated facilities" to comply with the requirements of subparts C and G to September 17, 2018. Those reasons related to the current provisions of the PMO, the work already begun by NCIMS to modify the PMO to include all of the requirements established in the final human preventive controls rule, and complex implementation issues concerning the interstate movement of milk and milk products and imported milk. We explained that in establishing a compliance date of September 17, 2018, for PMO facilities, we considered: (1) The extent of revisions that must be made to incorporate the requirements of this rule for hazard analysis and risk-based preventive controls into the PMO; (2) the process to revise the PMO; and (3) the date at which the necessary revisions to the PMO could begin to be made. All of these discussions in the human preventive controls final rule related to the activities regulated by NCIMS under the PMO.</P>

<HD SOURCE="HD1">III. Economic Analysis of Impacts</HD>

<P>We have examined the impacts of this final rule under Executive Order 12866, Executive Order 13563, the Regulatory Flexibility Act (5 U.S.C. 601-612), and the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4). Executive Orders 12866 and 13563 direct us to assess all costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity). We have developed a comprehensive Economic Analysis of Impacts that assesses the impacts of this final rule (Ref. 4). We believe that this final rule is not a significant regulatory action as defined by Executive Order 12866.</P>

<P>The Regulatory Flexibility Act requires us to analyze regulatory options that would minimize any significant impact of a rule on small entities. Because this final rule is making no change to the compliance date announced for facilities regulated under the NCIMS system in the human preventive controls rule published on September 17, 2105, we have determined that this final rule will not have a significant economic impact on a substantial number of small entities.</P>

<P>The Unfunded Mandates Reform Act of 1995 (section 202(a)) requires us to prepare a written statement, which includes an assessment of anticipated costs and benefits, before proposing any rule that includes any Federal mandate that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more (adjusted annually for inflation) in any one year. The current threshold after adjustment for inflation is \$144 million, using the most current (2014) Implicit Price Deflator for the Gross Domestic Product. This final rule would not result in an expenditure in any year that meets or exceeds this amount.</P>

<HD SOURCE="HD1">IV. Environmental Impact, No Significant Impact</HD>

<P>We have determined under 21 CFR 25.30(j) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.</P>

<HD SOURCE="HD1">V. Paperwork Reduction Act of 1995</HD>

<P>This final rule contains no collection of information. Therefore, clearance by the Office of Management and Budget under the Paperwork Reduction Act of 1995 is not required.</P>

<HD SOURCE="HD1">VI. References</HD>

<P>The following references are on display in the Division of Dockets Management (see <E T="02">ADDRESSES</E>) and are available for viewing by interested persons between 9 a.m. and 4 p.m., Monday through Friday; they are also available electronically at <E T="03"><http://www.regulations.gov>.</E> FDA has verified the Web site addresses, as of the date this document publishes in the <E T="04">Federal Register</E>, but Web sites are subject to change over time. </P>

<EXTRACT>

<PRTPAGE P="71936"/>

<P>1. Office of the Federal Register, Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Human Food, September 10, 2015. Available at <E T="03"><https://s3.amazonaws.com/public-inspection.federalregister.gov/2015-21920.pdf>.</E></P>

<P>2. FDA, FSMA Webinar Series: Preventive Controls for Human and Animal Food Final Rules, 2015. Available at <E T="03"><http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm461512.htm>.</E></P>

<P>3. FDA, ?Contact FDA About FSMA,? 2015. Available at <E
T="03"><http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm459719.htm>.</E>
</P>

<P>4. FDA, ?Current Good Manufacturing Practice, Hazard Analysis, and
Risk-Based Preventive Controls for Human Food; Clarification of
Compliance Date for Certain Food Establishments,? 2015. Available
at: <E
T="03"><http://www.fda.gov/AboutFDA/ReportsManualsForms/Reports/EconomicAnalyses/de>.
</P>

</EXTRACT>

<SIG>

<DATED>Dated: November 10, 2015.</DATED>

<NAME>Leslie Kux,</NAME>

<TITLE>Associate Commissioner for Policy.</TITLE>

</SIG>

</SUPLINF>

<FRDOC>[FR Doc. 2015-29340 Filed 11-17-15; 8:45 am]</FRDOC>

<BILCOD> BILLING CODE 4164-01-P</BILCOD>

</RULE>

6.6.2 Python Code

```
import re
import csv
##I have the multiple list of files because excel was giving me trouble for
    making such a large .csv at the time
##Thus, I split into two groups and merged in R later.
#from ListofFiles1 import files
from ListofFiles2 import files

## create or open csv
#filename = "Rules00to06.csv" #Does not include June 25, 2003
filename = "Rules07to15.csv"

f = open(filename, "w+b")
writer = csv.writer(f)
headers=["Date","Agency","SubAgency","CFR","SignatureDate","SignatoryName","SignatoryTitle",
    "RIN", "FRDOC", "EffectiveDate","ImportantDates",
    "Addresses","SubjectList","AUTH","Agency2", "Action", "Summary", "FirstPage",
    "LastPage", "RuleTitle"]
writer.writerow(headers)

#open the file
```



```

#files=["FR-2000-02-29.xml"]
for file in files:
    thefile=open(file)
    ##store lines in the file as a python list
    lines=thefile.readlines()
    ##Find where the rules begin and end
    ruleLocations=[]
    ruleENDLocations=[]
    for j in range(len(lines)):
        if re.search("<RULE>", lines[j])!=None:
            ruleLocations.append(j)
        if re.search("</RULE>", lines[j])!=None:
            ruleENDLocations.append(j)

    ##Put FR date in document
    for m in range(len(ruleLocations)):
        stuffIWant=[]
        stuffIWant.append(file)
        arule=lines[ruleLocations[m]:ruleENDLocations[m]]

##There's a problem where BILCOD, NAME, and TITLE can have multiple iterations.
##I combined these into one cell in the final document.

Items=["<AGENCY>","<SUBAGY>","<CFR>","<DATED>","<NAME>","<TITLE>","<RIN>"]
trial=[]
for item in Items:
    for p in range(len(arule)):
        if len(re.findall(item, arule[p]))!=0:
            trial.append(arule[p])
    if len(trial)==0:
        trial.append("None")
    trial2="".join(trial)
    trial2=re.sub("\s{2,}","",trial2)
    stuffIWant.append(trial2)
    trial=[]

MultiLineItems=["<FRDOC>","<EFFDATE>","<DATES>","<ADD>"]
MultiLineItemsEND=["</FRDOC>","</EFFDATE>","</DATES>","</ADD>"]
start=0
end=0
TF=[]
for k in range(len(MultiLineItems)):
    for j in range(len(arule)):
        TF.append(MultiLineItems[k] in arule[j])
        if re.search(MultiLineItems[k], arule[j])!=None:

```

```

        start=j
    if re.search(MultiLineItemsEND[k], arule[j])!=None:
        end=j
        string=arule[start:(end+1)]
        ##This strips out extra spacing
        new_list=[]
        for n in range(len(string)):
            new_list.append(re.split("\s{2,}",string[n]))
        new_list=[item for sublist in new_list for item in sublist]
        while'' in new_list:
            new_list.remove('')
        stuffIWant.append(new_list)

    if any(TF)==False:
        stuffIWant.append("None")
    TF=[]

    trial=[]
    for p in range(len(arule)):
        if len(re.findall("<LSTSUB", arule[p]))!=0:
            trial.append(arule[p+1:p+4])
    if len(trial)==0:
        trial.append("None")
    trial=[item for sublist in trial for item in sublist]
    trial2="".join(trial)
    trial2=re.sub("\s{2,}", "",trial2)
    stuffIWant.append(trial2)
    trial=[]

    trial=[]
    for p in range(len(arule)):
        if len(re.findall('<HD SOURCE="HED">Authority:</HD>\n', arule[p]))!=0:
            trial.append(arule[p+1:p+2])
    if len(trial)==0:
        trial.append("None")
    trial=[item for sublist in trial for item in sublist]
    trial2="".join(trial)
    trial2=re.sub("\s{2,}", "",trial2)
    stuffIWant.append(trial2)
    trial=[]

##get multi-line stuff where I only need the last line of the multiline
LastLineItems=["<AGY>", "<ACT>", "<SUM>"]
LastLineItemsEND=["</AGY", "</ACT>", "</SUM>"]

```

```

start=0 ##This will mark the start of the multi line string
end=0 ##And this will mark the end
TF=[] #This will help me tell if the line type I need is there at all.
for k in range(len(LastLineItems)):
    for j in range(len(arule)):
        TF.append(LastLineItems[k] in arule[j])
        if re.search(LastLineItems[k], arule[j])!=None:
            start=j
        if re.search(LastLineItemsEND[k], arule[j])!=None:
            end=j
        string=re.split("\s{2,}",arule[start:end] [-1])[1]
        stuffIWant.append(string) ##append the last line
    if any(TF)==False:
        stuffIWant.append("None")
    TF=[]

trial=[]
for p in range(len(arule)):
    if len(re.findall('PRTPAGE P="([0-9]+)', arule[p]))!=0:
        trial.append(re.findall('PRTPAGE P="([0-9]+)', arule[p]))
if len(trial)==0:
    trial.extend(["None"], ["None"])
trial=[item for sublist in trial for item in sublist]
stuffIWant.append(trial[0])
if len(trial)>1:
    stuffIWant.append(trial[-1])
if len(trial)==1:
    stuffIWant.append(trial[0])

trial=[]
for p in range(len(arule)):
    if len(re.findall('<SUBJECT>', arule[p]))!=0:
        trial.append(arule[p])

if len(trial)==0:
    trial.append(" None") ##I forgot to document why I did this and don't
    remember now. It comes out in the next part.

trial2=re.sub("\s{2,}", "",trial[0])
stuffIWant.append(trial2)

#NewList=[]
#stuffIWant=[item for sublist in stuffIWant for item in sublist]
#for item in stuffIWant:
# if re.search('>(.*<', item)!=None:

```

```
#     string2=(" ".join(re.findall('>(.*?)<', item)))
#     NewList.append(string2)
# else:
#     NewList.append(item)
writer.writerow(stuffIWant)
f.close()
```
