Democratic politics in the United States is increasingly administrative politics. Government agencies organize and service interest groups, engage in policy advocacy, provide advice to elected officials, and make public policy with authority given by political actors. Scholars have advanced theories to explain the role of agencies in American politics but efforts to test these theories are hampered by the inability to systematically measure the preferences of these agencies. We present a method for measuring administrative agency ideology that yields ideal point estimates that are directly comparable with those of other political actors. These estimates reveal essential insights into the nature of the bureaucratic state and they provide traction on a host of questions of interest to scholars of American politics. We discuss what these estimates tell us about the political environment of bureaucracy, their potential for testing theories of political institutions, and how the method described here might be applied in other contexts. We demonstrate their utility by using them to test key propositions from Gailmard and Patty’s (2007) influential model of political control and endogenous expertise development.
Abstract

Democratic politics in the United States is increasingly administrative politics. Government agencies organize and service interest groups, engage in policy advocacy, provide advice to elected officials, and make public policy with authority given by political actors. Scholars have advanced theories to explain the role of agencies in American politics but efforts to test these theories are hampered by the inability to systematically measure the preferences of these agencies. We present a method for measuring administrative agency ideology that yields ideal point estimates that are directly comparable with those of other political actors. These estimates reveal essential insights into the nature of the bureaucratic state and they provide traction on a host of questions of interest to scholars of American politics. We discuss what these estimates tell us about the political environment of bureaucracy, their potential for testing theories of political institutions, and how the method described here might be applied in other contexts. We demonstrate their utility by using them to test key propositions from Gailmard and Patty’s (2007) influential model of political control and endogenous expertise development.
For democratic government to be effective, it must rely on undemocratic administrative officials to make and implement policy. While the Constitution barely describes an administrative apparatus, the departments and agencies created by Congress and the president play a key role in the politics and policy of the United States. The growth in the size, role, and complexity of government activity has forced elected legislators and presidents to increasingly rely on administrative officials to set policy agendas and make and implement policy decisions. With the increased political role of administrative actors, scholars have paid increasing attention to how these undemocratic officials behave. Do they follow their own views about what policy should be or do they pursue the policy goals of the president, the courts, Congress, or the public more generally (see, e.g., Carpenter 2001; Gailmard 2009; Huber 2007; McCubbins, Noll, and Weingast 1987, 1989; Weingast and Moran 1983; Whitford 2005; Wood and Waterman 1994)? When legislators and presidents delegate authority to these administrative officials, how do they take into account these different agency preferences (see, e.g., Bendor and Meirowitz 2004; Bertelli and Feldman 2007; Boehmke et al. 2005; Epstein and O’Halloran 1999; Huber and Shipan 2002)? When do elected officials impose ex ante and ex post constraints on bureaucratic officials and to what extent (Aberbach 1990; McCubbins and Schwartz 1984; McCubbins, Noll, and Weingast 1987, 1989)?

These questions are central to the study of American politics and political institutions more generally. Yet, the important theorizing that has occurred to answer these questions has not been accompanied by comparable empirical testing. Efforts to test theories of delegation, separation of powers, and bureaucratic control are hampered by the inability to systematically measure the preferences of administrative agencies in a way that is comparable to other political actors. While sophisticated estimates of legislative, presidential, and judicial preferences have and continue to be developed, no comparable measure of bureaucratic preferences exist (Bailey 2007; Epstein et al. 2007; McCarty and Poole 1995; Poole 1998; see, however, Nixon 2004). We have very little systematic information about which agencies are liberal or which agencies are conservative and what effects these differences have for agency design, delegation, political oversight, or judicial deference (Bertelli and Grose 2007, 2009; Clinton and Lewis
In this paper, we describe a method for measuring agency ideology that yields estimates that are directly comparable with those of the political branches. Specifically, we use the stated preference of federal executives about key votes in Congress to estimate ideal points for these executives on the same space as legislators. We then aggregate these estimates into agency-specific averages. The paper describes the survey and method, presents the estimates, and uses them to describe important aspects of the political environment of bureaucracy. It compares the new estimates to existing estimates and discusses issues associated with their use. We use the estimates to test key propositions from Gailmard and Patty’s (2007) influential model of political control and endogenous expertise to demonstrate their usefulness for evaluating existing models of American politics and political institutions. We conclude by discussing how the estimates themselves and the method employed here can advance our understanding of American politics and political institutions more generally.

1. Measuring Agency Ideology

In administrative agencies it is not clear where preferences reside or how we might aggregate relevant individual preferences along with other features of agencies that have ideological content into one estimate of agency ideology. Up to this point there have been three main approaches to measuring the ideology of agencies. Each has its strength but all three rely on subjective assessments or problematic assumptions about agency preferences. The first approach relies on expert judgments about agency ideology based upon objective information and subjective judgment. Some scholars have sought to classify agencies as liberal or conservative on the basis of the mission of the agency (e.g., regulation, defense) or whether the agency has a mission closer to the policy commitments of one party or the other (e.g., Gilmour and Lewis 2006 a,b). Clinton and Lewis (2008) try to systematize subjective assessments of agency preferences by conducting an expert survey on agency preferences. The usefulness of these approaches is limited by the fact that they rely on scholarly judgment and estimates are not directly comparable to the estimated preferences of other political actors such as the president or Congress.
Moreover, the quality of the estimates depends upon the knowledge of the experts. Problems arise if experts are limited in their knowledge of lesser-known agencies or make similar mistakes in categorizing agencies as liberal or conservative (e.g., Defense Nuclear Facilities Safety Board).

A second common approach to measuring agency preferences uses information about current or past political configurations to determine agency ideology. For example, some works code agencies as liberal or conservative based upon the politics at the time the agency was created. Scholars code agencies based upon whether they are created by Democratic or Republican presidents or congresses (Gilmour and Lewis 2006 a,b). Other works code agencies as liberal or conservative based upon the party affiliation of the president or the appointees in each agency (see, e.g., Cohen 1986; Epstein and O’Halloran 1999; Huber and Shipan 2002). One difficulty with these approaches is that they are imprecise. What most political institutions scholars consider to be liberal or conservative agencies are created in both liberal and conservative administrations and congresses (Clinton and Lewis 2008). More specifically, coding agencies by the politics at the time they were created implicitly forces one to assume that agencies such as the Council of Economic Advisers or Office of Personnel Management (unified Democratic control) are more liberal than agencies such as the Consumer Product Safety Commission or the Environmental Protection Agency (divided party control). Coding agencies according to contemporaneous politics is also difficult. The presence of a Republican administration does imply that all agencies are conservative. Nor does a presidential appointee from the president’s party necessarily share the president’s preferences or embody the ideology of the agency. Indeed, agency structures, the civil service, and congressional involvement ensure that agencies do not reliably share the president’s or appointees’ viewpoints.

A third common approach to measuring agency preferences relies on observed behavior such as commission votes or statements of agency officials to estimate the ideal points of agency appointees. Some scholars scale the votes of commissioners to develop measures of ideology (Moe 1985; Nixon 2004; Snyder and Weingast 2000). Two difficulties with this approach are that the number of persons who have served in both agencies and Congress is limited and officials in administrations (as opposed to commissions) do not vote in the same way that commissioners do. Bertelli and Grose (2009) use the
public positions of cabinet secretaries on votes in Congress to estimate executive preferences across time and institutions. While their approach is promising, its usefulness for measuring agency ideal points is limited by the fact that such information is difficult to collect for less visible executive officials and the estimates are only measures the ideology of secretaries rather than agencies. Assuming that agency preferences are determined by the preferences of a single political appointee is not entirely satisfying given what we know about bureaucratic autonomy and agency resistance to both presidential and congressional leadership (see, e.g., Carpenter 2001; Huber 2007; Rourke 1969).

Limitations in the three existing approaches to measuring agency ideology necessitate the continued search for new measures. To illuminate the political environment and facilitate empirical tests, these new measures should allow for comparisons to other political actors and be flexible enough to allow preferences to differ within and across agencies. It is to this effort we now turn.

2. Estimating Agency Ideology Using Federal Executives’ Opinions

Our analytical strategy entails two components: first, survey individual federal executives – both appointees and careerists – within the departments and agencies in such a way so as to relate federal executive opinions to the opinions of legislators, and second, aggregate the opinions of the executives into estimates of agency ideology. We survey agency officials to obtain data on the “votes” of policy making bureaucratic officials (see, e.g., Bafumi and Herron 2009). By asking federal executives how they would have voted on issues before Congress, it is possible to use the resulting answers to relate the preferences of the career executives to congressmen. Since our survey respondents can be thought of as “voting” on the same issues as members of Congress it is possible to use the set of common issues to measure the opinions of respondents and congressmen in a manner that is directly comparable. This approach is similar to the logic McCarty and Poole (1995) use to relate the preferences of the President and Congress.¹

¹ If anything, our situation is slightly better because, whereas one may be concerned that the decision of the President to take a public position on a given issue is endogenous, the career executives are not
New Data: Survey on the Future of the Government Service

In the fall-winter of 2007-8 we conducted the Survey on the Future of the Government Service. The survey included a variety of questions on the backgrounds, experiences, and political views of government executives. The survey was sent to 7,448 federal administrators and program managers (both career and appointed) in the various departments and agencies. The target population included cabinet secretaries, deputy, under-, and assistant secretaries, as well as independent agency heads, bureau chiefs, general counsels, and key deputies in the government bureaucracy. The overall response rate, once names incorrectly included were excluded, is 33%. One notable exception to the general representativeness of the sample is that higher level political appointees are underrepresented in the

choosing the issues on which to take a position in this instance because we provide the careerists with the set of issues of interest. Moreover, unlike the costs of public positioning in roll-call voting, judicial decisionmaking (Bailey 2007) or presidential position taking (Poole and Rosenthal 1997; Bailey 2007), the political costs of responses to a confidential, academic survey are very low. Put differently, this low cost environment serves as an advantage in uncovering the true ideology of the bureaucrats we survey given the sincere voting that underlies the ideal point model we employ (Clinton, et al. 2004).

2 Of the 7,448 names 297 potential respondents were excluded because they were not federal employees, had left office by the time the survey began, were duplicates, or otherwise not federal executives. The original list also included 461 potential respondents from the National Science Foundation because the firm incorrectly labeled NSF program officers as managers or executives. See Appendix A for a full discussion.

3 We verified this by comparing voter registration records of the population with self-identified partisanship in the sample. For a full discussion see Appendix A.
sample relative to the population, something we discuss in more detail below.\(^4\) We include a full
discussion of the survey methodology and response in Appendix A.

*Executives and “Votes” on Key Legislation*

To measure the ideology of executives and their agencies, we use responses to a series of
questions about votes taken by the House or Senate in 2006. To identify salient votes we use the *National
Journal*’s list of 187 key votes dealing with either economic, social policy or foreign policy.\(^5\) The votes
were selected on a mix of economic and social issues that were easy to read and interpret – i.e., no votes
on procedural issues or votes with unclear substantive implications. The survey included seven key votes
in each chamber to help relate the resulting estimates to member preferences in both the House and the
Senate.

The survey asked: “In addition to the general political background of executive officials, we are
also interested to know your personal opinion about several key votes in Congress in the last few years.
Specifically, would you have supported the following measures? [Yes, No, Don’t Know].” The fourteen
votes, with chamber (H or S), roll-call number and bill number are:

1. [H] A bill to permanently reduce estate taxes (315/HR5638).
2. [S] Confirmation of Samuel Alito as an associate justice on the Supreme Court (2/.).

\(^4\) The number of respondents is large (2,398), but the response rate was noticeably higher among career
professionals than appointees. We have responses from 259 political appointees, compared to 2,021
career professionals. Of the appointees, 102 are Senate-confirmed appointees. Of the approximately 550
policy-relevant Senate-confirmed appointees, this amounts to a 19% response rate. There are 131
appointed members of the Senior Executive Service who responded out of approximately 700 total (19%),
but not all of the 700 appointees in the SES are administrators or program managers. For a full discussion
see Appendix A.

\(^5\) Source: http://nationaljournal.com/voteratings/house.htm and
3. [S] A bill to establish English as the national language and require immigrants to pass proficiency tests (131/S2611)

4. [S] Efforts to amend the Constitution to prohibit desecration of the U.S. flag. (189/SJRes12)

5. [S] A bill to permit federal funds for embryonic-stem-cell research (206/HR810)

6. [S] A bill to create federal grants to support sex education programs (214/S403)

7. [S] A bill to make it a federal crime to take a minor across state lines to obtain an abortion without parental notification or consent. (216/S403)

8. [S] A bill to increase the minimum wage to $7.25 per hour in two years (179/S2766)

9. [H] A bill to halt deployment of space-based missile defense systems (142/HR5122).


11. [H] A bill to require photo identification and proof of citizenship for voters in a federal election. (459/HR4844).

12. [H] A measure to amend the Constitution to define marriage as the union of a man and a woman (378/HJRes88)

13. [H] A bill to prohibit funds for contracts with companies that incorporate offshore to avoid U.S. taxes (275/HR5576).

14. [H] A bill to ensure access to federal courts for individuals who challenge government use of eminent domain to take their property (511/HR4772).

We selected these votes based on their ability to adequately partition the space and provide enough information so as to distinguish between members. To check the performance of the selected votes we estimate four sets of ideal points. We estimate ideal points for: House members using all 95 National Journal key votes, House members using the seven National Journal key votes listed above, all
Senators using the 82 *National Journal* key votes, and all Senators using the seven *National Journal* key votes listed above.\(^6\)

Figure 1 plots the relationship between the ideal point estimates that result from using all key votes (x-axis) and the seven votes listed above (y-axis) in the House (left) and Senate (right).\(^7\)

**FIGURE 1 ABOUT HERE**

The estimated ideal points resulting from using all *National Journal* key votes and only the seven votes in each chamber listed above are closely related. The Senate ideal points correlate at .919 and the House ideal points correlate at .865. In addition, as the distribution along the y-axis makes clear, the seven selected votes are able to distinguish liberal members (with ideal points less than 0) from conservative members, although there is clustering at the ideological extremes due to the lack of votes distinguishing among the most liberal and most conservative members.

*Estimating Executive Ideal Points*

Given the bureaucrats’ opinions on issues before Congress collected by the survey, it is straightforward to estimate directly comparable ideal points. We simply treat federal executives as “legislators” who “vote” on only the votes they were asked about.\(^8\) There is no reason to suspect that alternative measurement models produce divergent results and we therefore estimate ideal points using the statistical model of Clinton, et al. (2004).

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\(^6\) In practice, we estimate ideal points for members who cast at least two votes. This leads to: 437, 432, 102 and 102 members respectively.

\(^7\) The estimates were computed using ideal. In each case, the space was identified using the N(0,1) normalization for x. 250,000 iterations, thinned by 100 were estimated and the first 20000 were used as “burn-in”.

\(^8\) The results are not sensitive to whether we estimate preferences for everyone using just these 14 votes or whether we estimate preferences using every available vote and the assumption that non-votes (i.e., those votes in the House or Senate that are not asked about) are missing at random.
Augmenting the matrix of congressional roll-call votes in this fashion assumes that the item parameters of the votes before Congress and the opinion items being asked are identical. Put differently, we assume that survey respondents base their opinions on a relative comparison of the same yea and nay outcomes associated with the outcome of the congressional roll call vote. Assuming that the item parameters for these votes are identical is admittedly a strong assumption, but it is arguably a weaker assumption than others that are routinely made to “bridge” institutions (e.g., members serving in different institutions have identical ideal points). Consistent with most existing theoretical and empirical work, we also assume the policy space is unidimensional.9

Analyzing the augmented data matrix yields an ideal point estimate for every legislator and every federal executive in the same policy space. The ideal points for agency officials are obviously more imprecisely estimated than are the ideal points of members of Congress because they are based on many fewer votes. Even so, because the magnitude of the estimation uncertainty can be quantified, subsequent analyses can account for the increased imprecision.

3. The Ideal Points ofExecutives

The resulting estimates of federal executive ideal points provide important insight into the political environment of bureaucracy. Figure 2 graphs the distribution of executive ideal points along with those of members of the House and Senate and President Bush. Several interesting features of these estimates are worth mentioning. First, career executives are more liberal than most elected officials. The fact that career professionals are relatively liberal compared to other political actors except House Democrats has important implications for American politics. If career executives are more liberal across administrations, and the slow moving nature of the civil service suggests that they are, this will lead to

9 While we might like to estimate a model that allows for more than one dimension, the limited number of votes makes this infeasible. That said, previous efforts to estimate ideal points in the U.S. Congress typically find a single dimension relevant for explaining voting behavior (see, for example, Poole and Rosenthal 2007).
differential treatment by Democratic and Republican presidents and congressional majorities. Republican presidents will have systematically stronger incentives to politicize the bureaucracy in order to control agency policy outputs. Similarly, Republican majorities will be less trusting of the continuing professional civil service than Democratic majorities. This will influence legislative incentives to delegate authority to the bureaucracy, support it with budgets, and oversee its activities.

FIGURE 2 ABOUT HERE

A second important finding is that the preferences of appointees are systematically different than those of careerists. The preferences of appointees are closer to the Republican Party medians and the preferences of careerists closer to those of the Democratic Party medians. Whereas the median career executive (-0.14) lies within the distribution of ideal points for Democrats in the House (whose median is -0.81), the median appointed executive has an estimated ideal point of 0.60. By way of comparison, President Bush is estimated to have an ideal point of .80 and the median Republican in the House and Senate are 1.07 and 0.43, respectively. This finding reveals not only the heterogeneous nature of agency preferences (which has important consequences for many aspects of bureaucratic functioning), but also the potential incentives behind staffing decisions.

Comparing the preferences of careerists and appointees agency-by-agency reveals whether the aggregate pattern evident in Figure 2 persists across agencies. In particular, are liberal appointees located in bureaucracies with liberal careerists or are bureaucracies containing liberal careerists more likely to be governed by conservative appointees? Figure 3 graphs the average preferences of careerists against the average preferences of appointees within each agency with more than 20 respondents. If appointees are named to particular agencies to counteract the preferences of careerists the correlation between careerist ideology and appointee ideology should be closer to -1. If, however, more liberal appointees are selected for more liberal agencies, the correlation between the two should be closer to 1.

INSERT FIGURE 3 ABOUT HERE

Regardless of whether the mean or median is used to measure the central tendency of appointees and careerists within an agency, the relationship between the two is almost zero. Excluding the obvious
outlier in each reveals a very weak positive relationship, implying that more liberal appointees are selected for liberal agencies and more conservative appointees are selected for more conservative agencies. Table 1 makes the nature of the relationship more precise by reporting the linear relationship using all 26 agencies with more than 20 respondents (the thin regression line plotted in Figure 3) as well as the relationship omitting the one obvious outlier (the thick regression line in Figure 3). The fact that the constant is statistically distinguishable from zero in every instance but one confirms that appointees are systematically more conservative than the careerists within agencies. The fact that the coefficient on appointee preferences is positive is consistent with a self-selection story; appointees with more liberal preferences appear to work in agencies with more liberal careerists. That said, the evidence of a systematic relationship is extremely weak, and distinguishable from zero only when one outlying agency is included in the analysis. This finding suggests that President Bush did not put systematically more conservative appointees into more liberal agencies to counteract their ideological predisposition. While we cannot investigate this question fully here, this finding highlights the importance of generating these estimates to help unpack the strategy behind presidential staffing choices.

A third key observation evident in Figure 2 is that while legislator preferences in the House and Senate are bimodal, the distribution of federal executives’ preferences is both unimodal and relatively dispersed across the ideological space. No Democrats are particularly conservative – especially in the House – but the distribution of ideal points for both career and appointed executives span most of the estimated ideological spectrum. This implies that legislators and presidents may find ideological allies dispersed throughout the bureaucracy. Ideological kinship may be an important source of mutually beneficial relationships that include the distribution of pork, coaltional politics, and congressional or presidential input on civil service promotions.

Table 2 presents a summary table of the median and mean for various groupings of critical actors to identify the nature of the political environment of bureaucracy in more detail. Summarizing the estimated ideal points in this fashion more precisely identifies the nature of the relationship between the
bureaucracy and the other political actors graphed in Figure 2. It illustrates more clearly how the permanent bureaucracy – defined to be the set of career executives – is, on average, quite different than the temporary bureaucracy created by the appointment process. Moreover, the permanent bureaucracy is, in general, more liberal than the set of political appointees serving during the presidency of George W. Bush. Additionally, both the mean and median appointee ideal points are statistically indistinguishable from the midpoint between the Senate and President Bush (.56 and .55 using means and medians respectively). This implies that the president is not appointing ideological loyalists across the board and may be constrained by the preferences of the Senate.

Together these new estimates of executive preferences help characterize key features of the political environment of bureaucracy. Having examined the relationship of careerists and appointees both in the aggregate by pooling across agencies as well as within agencies, we also seek to compare the aggregate preferences of agencies with the preferences of the other political actors.

4. The Ideal Points of Agencies

Characterizing the relationship between agency preferences and the preferences of political actors is essential for a large number of fundamental questions in American politics and political institutions. The task of measuring agency preferences is complicated, however, because it is not immediately clear how to best aggregate individual level preferences to construct a measure of agency ideology. In the absence of a resolute aggregation rule, we compare two different ways of aggregating individual preferences to account for different ways of measuring the heterogeneous influence of individual executives due to their status and position in the bureaucratic hierarchy.

The simplest model of agency ideology is the average (or median) preference of the executives working in the agency. This assumes that all opinions within an agency’s management team count equally for the determination of agency ideology. More precisely, for agency j with N_j respondents consisting of
n_a appointees and n_c careerists, $\bar{X}_j = \frac{n_a}{N_j} \bar{X}_A + \frac{n_c}{N_j} \bar{X}_C$ where $\bar{X}_A$ and $\bar{X}_C$ represent the mean ideal points of appointees and careerists in agency j respectively.

Figure 4 graphs the agency averages arrayed from most liberal to most conservative and the number of respondents in each (Appendix B).\(^{10}\) The figure includes estimated agency ideal points along with the number of respondents and estimates for the chamber medians and the president. Horizontal lines reflect confidence intervals for the agency averages. The darker shading indicates the 25% - 75% interquartile range and lighter shading the 5% - 95% confidence interval. Among the most conservative agencies are the military services and the Department of Defense (DOD) along with the Department of Homeland Security (DHS). Among the most liberal agencies are regulatory and social welfare agencies including the National Labor Relations Board (NLRB), the Environmental Protection Agency (EPA) and the Department of Health and Human Services (HHS). A number of the agencies overlap with congressional chamber medians, which are negative but close to zero, but none of the agency means are as extreme as the party medians in the House. That said, the preferences of the military services, DOD, and DHS are much closer to the preferences of the Republicans in the House and Senate than HHS or EPA.

FIGURE 4 ABOUT HERE

Comparing the agency means to expert surveys of agency ideology reveals some broad similarities; the correlation between the mean agency estimates and the estimates based on expert surveys reported by Clinton and Lewis (2008) scores is 0.64 and the military, defense, and security agencies are broadly conservative and the regulatory and social welfare agencies tend to be more liberal. There are

\(^{10}\) A table including the numerical estimates is included in Appendix B. Ideally, we would also include a column including the ideal point estimates for each agency’s appointees. This is not possible here since the number of appointees in each agency is very small and cannot be reported due to confidentiality restrictions imposed by the survey’s informed consent provisions.
some notable differences, however, such as the Federal Trade Commission (FTC), the Department of the Treasury, the Department of Interior, and the Department of Commerce. Experts on bureaucratic politics rated each of these agencies as conservative in 2005 yet executives who work in these agencies are systematically more liberal than experts believed.

A shortcoming of this means of aggregating executive preferences into agency preferences is that it does not account for potential differences in how important careerists and appointees are for determining agency preferences. Nor does it account for the higher rates of non-response among appointees. To remedy these problems we pursue a second strategy for aggregating executive preferences into agency ideal points. We weight agency ideal points by the relative influence of appointees and careerists in agency policy decisions. To create these weights we use the self-reported distribution of power between careerists and appointees in each agency. In addition to asking about their views on the 14 votes that came before Congress, all respondents to the Survey on the Future of Government Service were asked “In general, how much influence do the following groups have over policy decisions in your agency?” with a response set of “A great deal” “A good bit” “Some” “Little” “None” and “Don’t Know” with respect to the role of appointees and senior civil servants. We use the percentage replying “A great deal” or “A good bit” with respect to the amount of influence wielded by appointees and senior civil servants to construct weights. We weight the ideal points of appointees by the percentage of respondents in the agency who believe appointees exercise “A great deal” or “A good bit” of influence over the total percentage giving these responses for both appointees and careerists in the agency. So, if in agency j a proportion of respondents $p$ report that appointees exert “A great deal” or “A good bit” of influence over agency decisions and a proportion $k$ report that senior civil servants exert “A great deal” or “A good bit” of influence over agency decisions, appointee respondent observations have a weight of $p/(p+k)$ while careerist respondent observations have a weight of $k/(p+k)$. The agency ideal point is then estimated using:

$$
\bar{X}_j = \frac{p}{(p+k)} \bar{X}_A + \frac{k}{(p+k)} \bar{X}_C.
$$
Whereas the agency averages graphed in Figure 4 weight appointee and careerist means by the percentage of appointees and careerists responding to the survey, weighting by perceived influence also helps ameliorate potential concerns that might arise due to the lower response rate among appointees. We term the resulting weight the *influence weight*.

Figure 5 graphs the relationship between the two measures and reveals a few differences. First, although the measures are correlated at .77, weighting by perceived influence moves the estimated ideal point of all agencies but the National Labor Relations Board in a more conservative direction. This is because whereas the average weight for the appointee mean is only .10 using the sample mean, the average weight for the appointee mean increases to .57 using the influence weight. Second, the largest change occurs in the Department of Labor (Labor), which changes from -.14 to .93, followed by the Environmental Protection Agency (EPA), which changes from -.51 to .11. The large shifts in EPA and Labor suggest that presidents may indeed appoint more conservative appointees to more liberal agencies in some cases, particularly cases where key policies are implemented. EPA and Labor implement important regulatory policies concerning the environment, mine safety, and occupational safety and health.

**FIGURE 5 ABOUT HERE**

These estimates of agency preferences provide important new information about which agencies are liberal and which agencies are conservative. According to existing theories of American politics and political institutions, these differences among agencies have important implications for the place of each agency in the American political system; among other things, they determine the extent of delegated authority, how the agency is staffed, and how much oversight political actors exert. The estimates provide an important resource for testing theories of political institutions. In the next section we illustrate how these estimates of agency preferences can be used to test existing theories of American politics and political institutions.
5. Application: Delegation and Discretion in the 109th Congress

In an influential paper, Gailmard and Patty (2007) model the choice of a legislature to offer discretion to an executive agency—and the choice of a civil servant to continue to work at the agency or to leave the agency for private employment—in a two-period game. They argue that the amount of discretion offered by the legislature is contingent upon the size of the ideological distance between the legislature and the agency: when preference divergence between Congress and an agency is relatively small, there is an incentive for Congress to grant more discretion as the distance between Congress and the agency increases. When the distance between these actors is very large, however, the relationship is inverted. Increasing preference divergence leads to less discretion granted to the agency.

Gailmard and Patty (2007) argue that Congress wants an agency that is more likely to implement its preferred policy and possess policy expertise. In equilibrium, agencies employ bureaucrats motivated by policy, and only the policy-motivated bureaucrats that remain in the agency over time develop expertise. Because these agents presumably have employment options outside government, if wages are better in the private sector the only incentive the agent has for remaining in public service is influence over policy. The central non-monetary incentive is the ability for the agent—via increased discretion—to move policy closer to his or her own ideal point. Given the potential threat of exit from the civil service, Congress grants more discretion to the agent as the ideological distance between it and its agents grows to provide incentives for policy expertise. However, at some point as the ideological distance between the legislature and the agency is such that the Congress will become more concerned with the extreme policy outcomes that the agency might implement. Thus, Gailmard and Patty (2007) predict that the ideological

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11 This description is a simplification of their model. There are other important parameters not discussed, such as the type of agent (slacker or zealot), and the likelihood of each remaining as civil servants. The Gailmard and Patty (2007) model predicts that slackers will exit government service due to their disinterest in policy outcomes, while zealots will exit government service when they are not granted enough discretion (as zealots are interested in policy outcomes).
distance between Congress and agencies has a non-linear influence on discretion: discretion is initially increasing in ideological distance between the agency and Congress but ultimately decreasing as the distance passes a certain threshold.

Additional empirical implications from the model are reported in Table 3.\textsuperscript{12} If the legislature is very certain about the location of the implemented policy, then it grants less discretion to the agency. Moreover, the legislature is willing to trade off policy congruence with the agency for an increased willingness among the employees of the agency to gain expertise so more discretion will be granted to agencies with greater expertise.

\textbf{INSERT TABLE 3 ABOUT HERE}

To test these predictions, we examine the amount of discretion Congress granted to agencies during the 109\textsuperscript{th} Congress (2005-07). We collected data on the amount of discretion in all public laws passed during this Congress, matching each public law to the agency with primary jurisdiction to implement the policy in each public law.\textsuperscript{13} Of the 482 public laws enacted during the 109\textsuperscript{th} Congress, we

\textsuperscript{12} There are a number of other predictions from their model. We limit our tests to the most substantively interesting parameters in their model: ideological distance, policy certainty, and expertise.

\textsuperscript{13} We examine this Congress since the roll calls used to estimate the ideal points were from the 109\textsuperscript{th} Congress. The matching of a public law to an agency was done as follows. First, we identified all Senate and House committees in which the bill was referred. We matched each agency to the congressional committee to which the bill was referred based upon which senate committee (and house committee equivalent) processes the nomination of the head of each agency (and thus has jurisdiction over the agency). This agency-public law matching decision rule worked well in ‘easy’ cases, such as bills referred to the Senate or House Agriculture committees being matched with the Department of Agriculture. However, in a number of instances, committee jurisdictions cover multiple agencies (i.e., Energy and Commerce). In these instances, we searched and coded the frequency an agency appeared in the text of legislation. The agency appearing the most times in the text was matched to that public law.
were able to identify primary agency jurisdiction in 208 laws. Our unit of analysis is the public law-agency dyad.

The dependent variable is the amount of discretion granted by Congress within a public law measured using the *Logarithm of the number of words in each public law* (Huber and Shipan 2002).\footnote{We opted for this measure of discretion over the other canonical measure of discretion developed by Epstein and O’Halloran (1999). This other measure is a ratio of agency discretion relative to constraints in each statute, but they examine major legislation. They rely on *Congressional Quarterly* descriptions of each bill to identify instances of discretion to and constraints on agencies. Because we are studying all public laws, and not just major legislation, we cannot rely upon *CQ* for coding decisions. Thus, we have opted for the Huber and Shipan (2002) measure of discretion, as it can be applied to all public laws passed in the 109th Congress.} According to Huber and Shipan (2002, 73), laws with short texts leave ample room for discretion, while “longer statutes...are more likely to tell agencies what to do.” Thus, larger values of the dependent variable indicate *less* discretion.

Existing empirical tests of the amount of discretion granted to agencies by legislatures have been hampered by the lack of comparable preference estimates for both legislators and agencies, and have typically modeled ideological distance between the legislature and the executive branch using indicators such as the presence of unified or divided government (Epstein and O’Halloran 1999; Huber and Shipan 2002). While this may be a useful proxy for preference divergence when examining discretion over time, this measure is coarse and it assumes that all agencies within one presidential regime have identical ideological profiles. The results of our analysis estimating agency preferences above clearly refute this assumption.

To test the effects of distance between Congress and agencies summarized in Table 3, we utilize the ideal point measures discussed above to measure *Agency-floor distance* using $|X_A - X_F|$, where $X_A$ is the ideal point estimate of the agency and $X_F$ is the ideal point estimate of the median floor actor in the
House. \textit{Squared agency-floor distance} is similarly $|X_A - X_F|^2$. Because the dependent variable is constructed from the number of words in each public law and longer texts are associated with less discretion, the squared distance should be positively related to the log of the number of words in the public statute; the other variables should be negatively related to this quantity. Agency preferences are measured via the means presented in Table 3, and models are estimated using three versions of the estimates (i.e., unweighted—all respondents, unweighted—careerist respondents only, influence weighted) for robustness.

\textit{Policy certainty} is measured as the proportion of distinct programs in each agency that have valid performance measures. A sample of programs in each agency was assessed each fiscal year as part of the budgetary process during the Bush Administration (Lewis 2008; Moynihan 2008). These assessments evaluated, among other things, whether programs have adequate performance measures with an emphasis on measures of \textit{outcomes} rather than \textit{outputs}. The lack of available performance measures makes it more difficult for executives and legislators to map agency outputs to outcomes and harder to determine how legislative mandates will influence outcomes. A higher percentage of programs with appropriate performance measures implies more policy certainty and should lead to less agency discretion. \textit{Expertise} is measured by two variables: the \textit{Proportion technical} employees and the \textit{Proportion professional} employees in each agency.\textsuperscript{15}

\textsuperscript{15} Data on the performance measures comes from the FY 2005 federal budget that became publicly available in February 2005. Program assessments are available as part of the budget and are publicly available at www.omb.gov. Data on the proportion of employees that are technical or professional come from the Office of Personnel Management’s Fedscope website (fedscope.opm.gov). We calculate the proportions using data from September 2005. Gailmard and Patty (2007) argue that bureaucratic expertise is gained via increased tenure in the agency. As such, average agency tenure length is potentially a good proxy for expertise. We have also estimated models that include the proportion of agency employees with over 25 years of experience. In these models we could not reject the null hypothesis that this tenure
The results of the statistical model are displayed in Table 4. Three models were estimated, each model employing a different version of the agency ideal points. Estimates of all of the key variables of interest confirm the predictions of Gailmard and Patty (2007) reported in Table 3. The coefficient estimates reflecting the distance between the ideal point estimates of the agency and Congress are all in the expected direction and statistically significant using all four measures of agency preference. The distance between the floor and the agency yielded fewer words (increasing discretion) up to a certain point, but discretion decreases as the distance between agency and the pivotal floor actor in Congress gets very large (as evidenced by the positive coefficients for Squared agency-floor distance in the models). Substantively, changing the amount of preference divergence from no divergence to the average amount is estimated to decrease the number of words (increases discretion) by about 2.6 percent in Model 1. Increasing preference divergence from the average amount to the maximum amount, however, increases the number of words by about 4.2 percent (decreases discretion). In Model 3 (influence weighted ideal variable had no influence on agency discretion. Substantively, however, other results were the same. We suspect that there are a lot of factors, including a lack of good outside wage offers for employees in some sectors or agencies, that explain long agency tenures and make tenure a less precise measure of expertise even if the fundamental relationship between tenure and expertise exists.

16 The descriptive statistics for the variables in the models (n=208) are as follows. The dependent variable has a mean of 6.56 (SD 1.71) with a minimum of 4.17 and a maximum of 13.11. The Agency-floor distance variable has a mean of 0.54 (SD 0.19; minimum of 0 and a maximum of 1.18) in the first model with the measure based on all agency respondents. In second model, with agency estimates base upon careerist preferences, the mean is 0.62 (SD 0.21; min 0.05, max 1.14). In the final model with influence weights the mean value is 0.26 (SD 0.13; min 0.03, max 1.32). The policy certainty, expertise (proportion technical), and expertise (proportion professional) variables each have means of 0.73, 0.17, and 0.25 respectively (with respective minimum values of 0, 0.03, and 0.05; and respective maximum values of 1, 0.44, and 0.65).
points), however, increasing the amount of preference divergence from none to the mean value is estimated to decrease the number of words by about 1.10 to 1.20 percent. Increasing preference divergence to the maximum from the mean, however, is estimated to increase the number of words by 23 percent.

INSERT TABLE 4 ABOUT HERE

The claim that Policy certainty predicts less legislative discretion is also supported in our analysis although the effects are modest. In all models, as the proportion of programs with performance measures in an agency increases, discretion decreases. More specifically, increasing the proportion of programs with adequate performance measures from 75% to 100% is estimated to increase the number of words in a statute by one third to one half of one percent. We also find some limited evidence, as Gailmard and Patty (2007) claim, that Congress granted more discretion to agencies having more expertise. Increasing the proportion of an agency’s employees that are technical or professional by 0.10 is estimated to decrease the number of words in a statute by between 0.12 - 0.25 percent.

Overall, our results provide support for the comparative-static predictions of the Gailmard and Patty (2007). This is but one example of the types of questions in the theoretically rich literature on bureaucratic politics that our measures can assist in evaluating.

6. Discussion and Conclusion

Modern politics in the United States and other countries is increasingly administrative politics. Bureaucratic actors organize and service interest groups, engage in policy advocacy, provide advice to elected officials, and make public policy with authority given implicitly or explicitly by political actors. Agency officials have made influential decisions in areas as varied as economic regulation, environmental policy, foreign affairs, and education. With the increased role of agencies and their officials scholars have advanced theories to explain key topics such as separation of powers, delegation, and political control of the bureaucracy.

The new estimates of agency preferences presented in this paper provide important basic information that illuminates these topics. These estimates confirmed that the preferences of career
professionals differ from political appointees (Aberbach and Rockman 1976; Maranto and Hult 1994). Indeed, the majority of career professionals were more liberal than their appointee counterparts as well as congressional Republicans and the president. Most career professionals were also more liberal than the median Senate Democrat. The estimates also suggested that there is a small positive correlation between careerist ideology and appointee ideology, implying that presidents tend to appoint liberal appointees to liberal agencies and conservative appointees to conservative agencies rather than use appointees to counterbalance the ideological leaning of agencies. We provide important new information about which agencies are liberal and which are conservative in ways that differ from existing views and we compare how different agencies compare to key political officials in Congress and the White House -- perhaps the key factor in many models of separation of powers and the bureaucracy. Interestingly, most agencies were more liberal than the president and chamber medians and only the most conservative agencies such as the military services were estimated to be more conservative than the Senate median.

Beyond providing information useful for characterizing the political environment of American bureaucracies, the estimates help overcome an imposing obstacle in testing theories of American and institutional politics. The estimates provide scholars a means of measuring the extent of preference divergence among different political actors. Arguments about preference divergence are essential to many models of bureaucracy. For example, an important argument in the institutions literature concerns the ally principle—i.e., whether political actors delegate more to agents who share their preferences (Bendor and Meirowitz 2004; Boehmke et al. 2005). A similarly important literature evaluates whether advice or signals are more likely to be accepted when actors share preferences (Crawford and Sobel 1982; Krehbiel 1991; Patty 2009). Testing arguments about the ally principle or signaling in a separation of powers context requires estimates of the preferences of the actors involved. More generally, estimates of agency preferences are also essential for testing, among other things, whether preference divergence leads to more or more or less political oversight, more or less effort by bureaucratic actors, or more or less politicization. The empirical test of Gailmard and Patty’s (2007) influential piece on political control and
endogenous expertise development illustrates how these estimates can be useful moving American politics and political institutions research forward.

The method used to generate estimates of executive and agency preferences can be used in different contexts and over time. Political scientists have surveyed executive officials in different contexts and times. The addition of new questions to these surveys can lead to the generation of new estimates of administrative preferences in different countries and across time when coupled with the method described here (e.g., Aberbach et al. 1981; Aberbach and Rockman 1976; Maranto and Hult 1994). The proliferation of new data holds the promise of improving our understanding of increasingly important administrative political institutions in the United States and elsewhere.
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Figure 1: Comparison of National Journal Ideal Point Estimates
Figure 2: Distribution of (Unweighted) Ideal Point Estimates

![Graph showing the distribution of ideal points for different groups, including House [R], House [D], Senate [R], Senate [D], Appt. Execs., and Career Execs. with a vertical line indicating the ideal point for Bush.]
Figure 3. Relationship between Careerists and Appointees Within Agencies: All agencies with more than 20 respondents are included. The bold line indicates the regression line omitting the one outline and the thin line includes that data point in the regression.
Figure 4. Unweighted Estimates of Agency Ideal Points

- USAF
- ARMY
- NAVY
- DOD
- DHS
- GSA
- NRC
- USDA
- NASA
- DVA
- DOJ
- DOE
- DOT
- DOED
- HUD
- DOL
- COM
- SSA
- OTH
- STAT
- INT
- DTRS
- FTC
- HHS
- EPA
- NLRB

31
30
49
112
35
33
35
189
39
78
76
90
95
28
55
56
111
61
114
99
72
37
20
166
57
28
Figure 5: Comparing Agency Preference Measures

Corr = .77
Table 1. Model of Agency Careerist Preferences

<table>
<thead>
<tr>
<th></th>
<th>Mean (all)</th>
<th>Mean (non-outlier)</th>
<th>Median (all)</th>
<th>Median (non-outlier)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant (S.E.)</td>
<td>-0.22**</td>
<td>-0.16 (0.12)</td>
<td>-0.33** (0.12)</td>
<td>-0.31* (0.17)</td>
</tr>
<tr>
<td>Appointee Preferences</td>
<td>0.28* (0.12)</td>
<td>0.18 (0.17)</td>
<td>0.35** (0.15)</td>
<td>0.33 (0.22)</td>
</tr>
<tr>
<td>R^2</td>
<td>0.17</td>
<td>0.05</td>
<td>0.18</td>
<td>0.08</td>
</tr>
<tr>
<td>N</td>
<td>26</td>
<td>25</td>
<td>26</td>
<td>25</td>
</tr>
</tbody>
</table>

Note: ** and * indicates two-tailed significance at .05 and .10 or below.
Table 2. Ideal Point Estimates for Key Political Actors

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>President Bush</td>
<td>0.71</td>
<td>0.71</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td>U.S. Senate</td>
<td>0.41</td>
<td>0.39</td>
<td>0.31</td>
<td>100</td>
</tr>
<tr>
<td>Senate Republicans</td>
<td>0.43</td>
<td>0.55</td>
<td>0.25</td>
<td>55</td>
</tr>
<tr>
<td>Senate Democrats</td>
<td>0.06</td>
<td>0.20</td>
<td>0.26</td>
<td>44</td>
</tr>
<tr>
<td>U.S. House</td>
<td>0.46</td>
<td>0.19</td>
<td>0.88</td>
<td>433</td>
</tr>
<tr>
<td>House Republicans</td>
<td>1.07</td>
<td>0.93</td>
<td>0.30</td>
<td>232</td>
</tr>
<tr>
<td>House Democrats</td>
<td>-0.81</td>
<td>-0.66</td>
<td>0.47</td>
<td>200</td>
</tr>
<tr>
<td>Career Executives</td>
<td>-0.14</td>
<td>-0.09</td>
<td>0.79</td>
<td>1736</td>
</tr>
<tr>
<td>Appointed Executives</td>
<td>0.60</td>
<td>0.52</td>
<td>0.84</td>
<td>190</td>
</tr>
<tr>
<td>Parameters in Theoretical Model</td>
<td>Prediction from Theory</td>
<td>Measure in Statistical Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------</td>
<td>-----------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance between ideal policy of legislature and ideal policy of agency ($\rho_b$)</td>
<td>↑ distance, ↑ discretion, when distance between agency and legislature is smaller; ↑ distance, ↓ discretion, when distance between agency and legislature is larger</td>
<td>Agency-floor distance, $</td>
<td>X_A - X_F</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Squared Agency-floor distance, $</td>
<td>X_A - X_F</td>
<td>^2$</td>
</tr>
<tr>
<td>Policy certainty ($\rho$)</td>
<td>↑ certainty, ↓ discretion</td>
<td>Proportion of programs in agency with evaluation (PART) scores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency expertise ($\rho$)</td>
<td>↑ expertise, ↑ discretion</td>
<td>Proportion of employees in agency with technical backgrounds; proportion with professional backgrounds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4: Predicting the Extent of Agency Discretion by the 109th Congress

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV: Discretion</td>
<td>All respondents, no weights</td>
<td>Careerists only, no weights</td>
<td>All respondents, influence weights</td>
</tr>
<tr>
<td>(higher values = less discretion)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coef. (s.e.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ Agency$-floor distance squared / $(X_A - X_F)^2$</td>
<td>9.41 (3.39)**</td>
<td>7.98 (3.83)**</td>
<td>21.74 (11.01)**</td>
</tr>
<tr>
<td>Policy certainty</td>
<td>1.36 (0.71)**</td>
<td>1.60 (0.61)**</td>
<td>1.90 (1.21)*</td>
</tr>
<tr>
<td>Expertise (prop. technical)</td>
<td>-2.28 (1.14)**</td>
<td>-1.99 (1.32)*</td>
<td>-0.49 (1.65)</td>
</tr>
<tr>
<td>Expertise (prop. profesni)</td>
<td>-1.91 (1.55)</td>
<td>-1.89 (1.42)*</td>
<td>-1.27 (1.51)</td>
</tr>
<tr>
<td>Constant</td>
<td>9.56 (1.03)**</td>
<td>9.75 (1.38)**</td>
<td>7.27 (0.82)**</td>
</tr>
<tr>
<td>$F$</td>
<td>4.66**</td>
<td>4.08***</td>
<td>2.43**</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.09</td>
<td>0.08</td>
<td>0.06</td>
</tr>
<tr>
<td>$N$</td>
<td>208</td>
<td>208</td>
<td>208</td>
</tr>
</tbody>
</table>

**$p<0.05$; *$p<0.10$ (1-tailed tests for all variables). The unit of analysis is the public law-agency dyad. Each model is estimated with OLS with robust standard errors clustered on the agency. $X_A$ = Ideal point estimate of agency. $X_F$ = Ideal point estimate of pivotal floor actor in Congress.
Appendix A: Details of the Survey on the Future of Government Service

1. Survey Method

We obtained the contact information for all federal agency administrators and program managers from Leadership Directories, Inc., the firm that publishes the Federal Yellow Book. Of the 7,448 names provided, 297 turned out to be incorrect; they either were no longer in their position or their contact information was incorrect. The survey was web-based and conducted with the help of the Princeton Survey Research Center. Each potential respondent was sent a letter on Princeton University letterhead inviting them to participate and giving them options about how to do so. Those for whom we had email addresses (77%) were told that they would be getting an email of the survey one week after the initial letter. They were also told they could go to a website and login immediately with a login and password included in the invitation letter. All respondents for whom we had an email received an initial letter, an email invitation, up to three follow up email reminders, and a telephone call. The response rate from this group was 35%.

Those for whom we did not have email addresses were asked to provide us an email or go to the website directly and use the login and password provided. We then scheduled a series of follow up emails, letters, and ultimately, telephone calls. Those respondents whose email we did not have received an initial letter, a follow up letter, a telephone call, and a final reminder letter. The response rate for this group was 20%.

2. Response Summary

The overall response rate, once persons incorrectly included were excluded, is 34% (2,398/7,151). Of the 2,398 respondents, 2,069 completed the full survey. Agency-by-agency, the lowest responders were the Executive Office of the President (11%), the United States Post Office (15%), and the Department of the Treasury (20%). The highest responders were the Nuclear Regulatory Commission (56%), the Federal Trade Commission (63%), and the National Archives and Records Administration (71%). Agencies closer to the president have lower response rates on average than other agencies.
The response rate was noticeably higher among career professionals than appointees. We have responses from 259 political appointees, compared to 2,021 career professionals. Of the appointees, 102 are Senate-confirmed appointees. Of the approximately 550 policy-relevant Senate-confirmed appointees, this amounts to a 19% response rate. There are 131 appointed members of the Senior Executive Service (SES) who responded out of approximately 700 total (19%), but not all of the 700 appointees in the SES are administrators or program managers. This suggests that the response rate from appointees in the SES is higher.

In the sample, PhDs and men were also more likely to respond to the survey. The original list also included 461 potential respondents from the National Science Foundation (NSF) because the firm incorrectly labeled NSF program officers as managers or executives. If NSF employees are removed the response rate is 33% (2,250/6,690).

Nonresponse weights based on available covariates such as gender, agency, and whether the appointee was a career civil servant or a political appointee were constructed and applied to the data, but no appreciable differences emerged from so doing.

3. Robustness Checks: Ideology

There was some concern whether Democrats may be more likely to respond to the survey than Republicans. Additionally, because Democrats were also arguably less satisfied in the Bush administration, there was some concern that Democrats may be more likely to respond to the survey in order to express their dissatisfaction. We do not think this is the case. First, as Appendix A reports, 59% of our sample are Democrats, but this does not strike us as implausible given the ideological configuration of applicant pools to the public administration and public policy schools with which we are familiar.

Second, to identify if there is evidence of systematic non-response, we compared the partisan response rate of executives serving in the Washington, DC area to voter registration data in the DC metro area. We contracted with a private firm to find home addresses for as many in our population in the Washington, DC metropolitan area as they could find (primarily through the matching of unique
names). We then obtained voter registration information on people whose home addresses we secured. This information is publicly available in Maryland and the District of Columbia but not Virginia. In total, 57.4 percent of executives (both respondents and non-respondents) living in these locations were registered Democrats. Compared to the sample of registered voters, neither Democrats nor Republicans nor Independents participated at a higher rate than the voter registration percentages would suggest ($\chi^2=1.7$, 0.9, and .37, respectively). There is little evidence that non-participants are systematically different from participants on political factors - the primary consideration of this paper.

17 Out of 7,448 names, 2,918 were positively matched with exact home addresses. Of these 2,918 names, 415 were in the District of Columbia, 677 in Maryland, and 1,622 in Virginia.

18 Out of 1,092 persons with addresses in the District of Columbia and Maryland, we were able to get voter information on 717 (66%).

19 The remainder is comprised of those who are registered Republicans (24.02%) or did not register with either major party (18.58%).
### Appendix B: Measures of Agency Preferences

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Agency Mean</th>
<th>Careerist Mean</th>
<th>Appointee Mean</th>
<th>Influence Wgt. Mean</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Labor Relations Board</td>
<td>-0.72</td>
<td>-0.68</td>
<td>-0.99</td>
<td>-0.86</td>
<td>28</td>
</tr>
<tr>
<td>Environmental Protection Agency</td>
<td>-0.51</td>
<td>-0.59</td>
<td>0.58</td>
<td>0.11</td>
<td>57</td>
</tr>
<tr>
<td>National Institutes of Health (HHS)</td>
<td>-0.42</td>
<td>-0.48</td>
<td>0.51</td>
<td>0.06</td>
<td>166</td>
</tr>
<tr>
<td>Federal Trade Commission</td>
<td>-0.36</td>
<td>-0.54</td>
<td>0.66</td>
<td>0.11</td>
<td>20</td>
</tr>
<tr>
<td>Department of the Treasury</td>
<td>-0.29</td>
<td>-0.30</td>
<td>0.39</td>
<td>0.07</td>
<td>37</td>
</tr>
<tr>
<td>Department of the Interior</td>
<td>-0.20</td>
<td>-0.32</td>
<td>0.53</td>
<td>0.19</td>
<td>72</td>
</tr>
<tr>
<td>Department of State</td>
<td>-0.19</td>
<td>-0.24</td>
<td>0.36</td>
<td>0.10</td>
<td>99</td>
</tr>
<tr>
<td>Social Security Administration</td>
<td>-0.16</td>
<td>-0.18</td>
<td>0.15</td>
<td>0.00</td>
<td>61</td>
</tr>
<tr>
<td>Department of Commerce</td>
<td>-0.14</td>
<td>-0.25</td>
<td>0.76</td>
<td>0.30</td>
<td>111</td>
</tr>
<tr>
<td>Department of Labor</td>
<td>-0.14</td>
<td>-0.30</td>
<td>1.53</td>
<td>0.93</td>
<td>56</td>
</tr>
<tr>
<td>Dept. of Housing and Urban Dev.</td>
<td>-0.04</td>
<td>-0.08</td>
<td>0.20</td>
<td>0.09</td>
<td>55</td>
</tr>
<tr>
<td>Department of Education</td>
<td>0.01</td>
<td>-0.26</td>
<td>0.81</td>
<td>0.49</td>
<td>28</td>
</tr>
<tr>
<td>Department of Transportation</td>
<td>0.07</td>
<td>0.06</td>
<td>0.16</td>
<td>0.11</td>
<td>95</td>
</tr>
<tr>
<td>Department of Energy</td>
<td>0.09</td>
<td>0.06</td>
<td>0.33</td>
<td>0.21</td>
<td>90</td>
</tr>
<tr>
<td>Department of Justice</td>
<td>0.13</td>
<td>0.08</td>
<td>0.55</td>
<td>0.33</td>
<td>76</td>
</tr>
<tr>
<td>Department of Veterans Affairs</td>
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<td>0.10</td>
<td>0.62</td>
<td>0.39</td>
<td>78</td>
</tr>
<tr>
<td>Nat. Aeronautic and Space Admin.</td>
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### Political Actors

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**Note:** Includes only agencies with at least 20 executives responding.