Solidary and Functional Costs: Explaining the Presidential Appointment Contradiction

Jeff Gill
University of California, Davis

Richard W. Waterman
University of Kentucky

ABSTRACT

How is it possible for presidents to secure real influence from political appointees if these individuals spend so little time on the job before leaving government service? Many empirical studies have noted that once appointees have learned how to do their job and have come to trust the civil servants in their agencies, they are ready to leave these posts. Yet this suggests a dysfunctional bureaucratic structure that apparently does not exist, for many studies also tell us that these same political appointees exert real influence. In this article we address the problem of explaining executive effectiveness and executive turnover with a new empirical approach focusing on surveyed levels of stress and a theoretical focus on solidary and functional preferences. Whereas past research showed that these factors are related to agents and compliance, we show they are also related to the behavior of political principals.

ADDRESSING A CONTRADICTION

There is a fundamental puzzle in the executive appointment literature. Presidential and bureaucratic scholars now argue that political appointments represent the single greatest source of presidential influence over the bureaucracy. Yet it is easy to observe that these executives tend to remain on the job for only short periods. By the time they master the complex responsibilities of public management at a high level, they are inclined to leave government. How is it then possible for political appointees to be a primary source of presidential power while simultaneously serving so briefly? We call this phenomenon the *presidential appointment contradiction* because a widely accepted theory appears to conflict with empirical observation.

If presidential influence on the administrative state is at least partly a function of the longevity of appointments, then a central concern should be the underlying reasons that appointees leave high-prestige government positions. Unfortunately, investigating bureaucratic effectiveness through the duration of service is complicated by truncating events like presidential terms of office and unscheduled opportunities for advancement. Consequently, individual-level analysis across multiple measures is a requirement for understanding both decisions to leave and specific affecting covariates.

We investigate the presidential appointment contradiction using survey data on every presidential appointee to a full-time position requiring Senate confirmation from November 1964 through December 1984 (532 cases). These data provide the most comprehensive study to date of the perceptions of political bureaucrats in Washington over time and across administrations. In describing these data, Mackenzie writes,

> The analysis focused on the highest-ranking presidential appointees in the federal executive branch. That group was defined to include individuals whose appointments required Senate confirmation and who served in the pay grade Executive Level IV or above in the period from 1964–1984. This included all regulatory commissioners, assistant secretaries, and higher positions in all of the cabinet departments, the ranking officials of all the large independent agencies, and most of the appointees holding statutory positions in the Executive Office of the President. (1987, xiv)

These data provide a unique opportunity to examine why political appointees decide to leave or stay on the job because the survey directly queries personal characteristics, relations with professional staff, and centrally, stress.

Our theoretical approach is similar to that of Brehm and Gates (1999), who examined how psychological variables (solidary and functional preferences, such as the value of on-the-job friendship and gaining respect from one's coworkers) led to higher levels of compliance by agents in a variety of bureaucratic settings. Their focus was on positive preferences, for they sought to explain the factors that encouraged bureaucrats to work rather than shirk. Because we are interested in factors that motivate political appointees to quit, our focus is on a particular solidary and functional cost: increased levels of occupational stress. Also, whereas Brehm and Gates examined solidary and functional preferences in relation to agents' behavior, we focus here on how these constructs relate to political principals.

We first find that higher levels of stress are related to lower levels of job satisfaction and ultimately to higher levels of turnover. We then examine a variety of pecuniary, functional, solidary, and political influences that can mitigate or exacerbate appointee stress. We also find that various factors related to political principals (the president, Congress, and other agencies) and agents (bureaucrats from both inside and outside the appointee's agency) can increase or decrease stress, thus affecting the likelihood that an appointee will remain on the job. These various political influences help to disentangle the presidential appointment contradiction.

TRANSIENCE VERSUS INFLUENCE

For many years scholars argued that presidents derived little real influence over the bureaucracy from their appointment power (Beck 1982; Bryner 1987; Cohen 1986a, 1986b; Fenno 1959; Heclo 1977; Kaufman 1981; Noll 1971). These studies were often premised on the idea that presidents were uninterested in bureaucratic politics, were excluded from real influence by so-called iron triangle subsystems, or could not control their own appointees because they went "native," thus representing the bureaucracy's interests rather than the president's.

Conventional wisdom on the use of presidential appointments began to change as Lyndon Johnson struggled with what he perceived to be a recalcitrant bureaucracy that

often voiced criticism of his Vietnam policies (see Schott and Hamilton 1983). Richard Nixon then designed a new, aggressive strategy for appointing individuals who shared his political viewpoints to key bureaucratic positions and rewarded those who demonstrated loyalty (Cole and Caputo 1979). Ronald Reagan subsequently institutionalized this "administrative presidency" strategy (Nathan 1983; Waterman 1989; Weko 1995), and the George W. Bush administration appears to be continuing the practice. The avowed purpose of this strategy is to use the appointment and other powers (e.g., the budget) to increase presidential influence over the administrative state.

Over the past two decades, a number of empirical studies found that presidents are indeed able to influence the enforcement behavior of a number of federal agencies (Brigman 1981; Hedge and Menzel 1983; Moe 1982, 1985; Stewart and Cromartie 1982; Wood and Anderson 1993; Wood and Waterman 1991, 1993). Many of these studies demonstrate that the primary mechanism presidents employ to successfully influence the bureaucracy is their appointment power. For example, Wood and Waterman write, "Concerning the specific mechanisms of political control ... political appointments, a shared tool of the president and the Congress, are very important" (1994, 73). Waterman, in a survey of Environmental Protection Agency bureaucrats, found that "presidential appointees are perceived ... as exerting considerable influence" (1999, 165).

Although a consensus appears to have emerged that the presidential appointment power does matter, there are still some mixed signals in the literature. Presidential scholars have observed the length of appointive service of these appointees and found it to be surprisingly short in postwar administrations. Heclo (1977) measured the average length of an appointee's tenure at about two years, though Brauer (1987, 174–75) finds variation from a low of 1.9 years for Ford's political appointments to a high of 2.8 years for Johnson's appointees (see also Cohen 1986b). The average tenure for Reagan's appointees was almost exactly two years.

As a result of this high level of turnover, Heclo (1977) describes ours as a "government of strangers." Likewise, the various contributors to Mackenzie's (1987) edited reader also examine the transient nature of presidential appointees, the so-called in-and-outers of American politics. Again, the emphasis is on the high level of appointee turnover and its political repercussions. These authors believe that a number of factors including new and stringent ethics laws as well as demanding work schedules account for the high turnover rates in Washington.

The sum effort of these studies raises an interesting question: What level of effectiveness can we expect from appointees who spend little time on the job? As Michaels (1997) writes in her detailed analysis of the administration of George H. W. Bush, by the time many appointees have learned how to do their job and have come to trust the civil servants in their agencies, they are ready to leave these posts. Hence, we think it is reasonable to ask a basic question: How can presidents use their appointment power to influence the bureaucracy if appointees remain on the job for such short periods of time?

One answer is suggested by Jeffrey Cohen's (1986a) analysis of the motivations of presidential appointees. He finds that loyal appointees tend to stay in office longer and consequently provide presidents with more stable bureaucratic structures. Presidential influence is advanced because presidential appointees have more time to learn the intricacies of their jobs. They can then use this knowledge to better advocate the president's programs.

According to the various authors in the Mackenzie (1987) volume, it is often difficult to find qualified individuals who not only share the president's personal political

philosophy but also are willing to serve. The trials and tribulations associated with government service scare many qualified individuals away. Some turn down government service because of financial considerations; the remuneration is quite low compared with that in the private sector (the difference ranges from 43 to 131 percent for similar responsibilities [as reported in *Government Executive* 1999]). Moreover, the work hours are generally long: in one survey of presidential appointees, 73 percent of all respondents reported working sixty-one hours or more per week (Brauer 1987).

In addition to substandard pay and long hours, reporting requirements under the 1978 Ethics in Government Act also keep many qualified individuals from accepting appointments. The act demands that appointees provide detailed information regarding their finances and severely limits their postgovernment employment options. More critically, as appointees are often forced to sell stock and other holdings that might be considered a conflict of interest, they may suffer notable financial losses on stock sales and extremely high capital gains taxes. In some cases, appointees have been forced to lose millions of dollars as the cost of accepting a government job (Mackenzie 1987). Recently, Henry Kissinger turned down membership on the commission investigating the "9/11" terrorist attacks because of potentially severe financial losses. Because of all of these factors, a president is often forced to select a candidate who is neither his first nor even his second choice. In the case of the 9/11 investigation George W. Bush eventually selected former New Jersey governor Thomas Kean, who proved to be quite obstreperous in demanding additional information from the White House. Thus, although the president's power of appointment is the most important source of bureaucratic influence, it is certainly not an absolute power.

The view of the appointment process that emerges from the literature, then, is far from consistent. Studies suggest that presidents can use appointees to increase their influence, yet appointees remain on the job for short periods of time, which undercuts effectiveness. Also, presidents do not get their first choice for key positions, and conflict exists between presidents and Congress, which can further reduce the likelihood that presidents can appoint individuals they prefer. In sum, the literature demonstrates both that there are tangible constraints on presidents' appointment power and that presidents successfully can use this constitutional power to influence the bureaucracy.

How can we reconcile these two main bodies of the appointment literature? One clue is that the various basic analyses of appointee tenure report a mean average, which turns out to have considerable variation (some officials in the Reagan/Bush period lasted twelve continuous years). What factors, then, are likely to encourage appointees to leave their posts prematurely? We focus here on one funneling explanation identified in the presidential appointment literature as a reason for high appointee turnover: stress (see Joyce 1990). The subsequent questions we raise are (1) Is stress related to turnover? (2) Which factors funnel into it and therefore exacerbate it? and (3) Are there other factors that mitigate it?

WHY EXAMINE STRESS?

Shortly, we will provide evidence that stress is empirically related to higher levels of turnover among political appointees. Before we do so, we ask: Theoretically, why should stress matter in the context of bureaucratic longevity? Brehm and Gates identified several kinds of agent preferences of which two are particularly important for our

purposes: (1) solidary preferences where "the subordinate acquires utility from the friendship with fellow employees" and (2) functional preferences where "the subordinate acquires utility by performing the very things that he is supposed to do" (1999, 75). These preferences are in addition to pecuniary (better pay) and political influence. Brehm and Gates examined these various preferences because they were concerned that "supervisors cannot monitor all the activities of the subordinate (creating moral hazard problems), nor can she identify the true 'type' of the subordinate (leading to adverse selection problems). Supervisors in any hierarchical control situation face these kinds of constraints, whether in the firm or a public bureaucracy" (1999, 191).

Given the fact that supervisors' capabilities are greatly constrained, Brehm and Gates asked, why, then, do bureaucrats comply (that is, why do they work, rather than shirk or commit acts of sabotage)? They (1999, 194) found that individuals working in federal agencies had a hierarchy of preferred rewards. Unsurprisingly, increases in base pay or one-time bonuses were the top choice of reward for good performance. Second was recognition from others (solidary benefits) as well as an increased sense of accomplishment (functional benefits). Although Brehm and Gates examined the incentives of various bureaucratic agents, theoretically there is reason to believe that these same factors can motivate or constrain the behavior of political principals. We therefore extend Brehm and Gates's work by focusing on how solidary and functional preferences negatively affect principal behavior.

Stress is important because (1) the appointment literature directly relates it to higher turnover rates and (2) it represents not a solidary or functional benefit but, rather, a cost of public service. Hence, we further extend the logic of Brehm and Gates's work in a second way. We specifically examine how solidary and functional preferences can promote not working and argue that motivational structures can operate in two directions: as incentives to work and not shirk or as incentives not to work and thus to shirk.

This is particularly relevant because the literature on political appointees emphasizes the costs of functional and solidary preferences. Rather than seeking the benefits of friendship, a solidary benefit, Heclo (1977) notes the tendency toward isolation and disassociation when he discusses the government of strangers. Rather than acquiring functional utility from the things principals and agents are supposed to do, they derive a cost: increased job-related levels of stress. Consequently, when we deal with political appointees, a discussion of both solidary and functional costs can be found in the literature.

In support of this argument, Bonafede writes, "Time on the job is time away from home, and time away from home may affect appointees' relationships with their families and friends. In come cases, the result is sadness and guilt, a feeling among appointees that they have failed to adequately discharge their duties as spouse or parent. In other cases, the impact is more severe; a broken marriage, vanished friendships, or loss of contact with children" (1987, 138). Bonafede also found that appointees mostly placed themselves in the highest stress categories on a five-point scale (62 percent) and that this has increased over time: from 52 percent under Lyndon Johnson, to 59 percent under Nixon/Ford, to 63 percent under Carter, to 73 percent under Reagan. As Carl Brauer notes, "Undoubtedly, people tend not to linger as presidential appointees because the jobs are so demanding and stressful" (1987, 183).

Thus, psychological factors (such as stress in particular) can have an impact on whether a principal remains on the job, which can affect his or her ability to monitor the bureaucracy or promote the president's policy interests. Reversing Brehm and Gates's logic then, rather than examining the impact of solidary and functional *benefits*, we focus

on the *costs* related to these preferences. In so doing, the logic of our argument essentially is the same: psychological factors should be important determinants of principal performance, just as they were for agent performance. We take the argument one step further, however, and treat stress as the outcome variable so that we can also examine the factors that can mitigate or exacerbate solidary and functional costs for political principals. We identify here a number of different potential explanations including personal and political factors. The latter are of particular importance, for they allow us to examine the relative impact of a variety of other political principals and subagents on political appointees.

THE DATA

To address the solidary and functional costs of stress, and its relationship to turnover and the presidential appointment contradiction, we analyze data from a survey of every presidential appointee to a full-time position requiring Senate confirmation from November 1964 through December 1984 (collected by G. Calvin Mackenzie and Paul Light, Inter-university Consortium for Political and Social Research, Study Number 8458, spring 1987).[1] Again, we argue that solidary and functional preferences are related to the presidential appointment contradiction in that lower levels of stress and longer tenure should promote increased presidential utility from the appointment power (as appointees remain on the job for longer periods of time). On the other hand, higher stress levels and shorter tenure should promote less presidential influence by encouraging a "government of strangers." The survey queries various aspects of the Senate confirmation process, acclimation to running an agency or program, and relationships with other functions of government. That is, a Senate-confirmed administrative executive reports hierarchically to the president but budgetarily (and often on policy matters as well) ultimately to Congress. Of course, every other Senate-confirmed executive is in the same position, and the real reason these two principals (Congress and the president) even care is that the agent directs other subagents in his or her hierarchy in the process of formulating and implementing policy.

Variables Used in the Study

The details on coding the variables from the Mackenzie and Light study are described in the appendix, and we use as the outcome variable a question that asked to what degree, for a full-time, Senate-confirmed presidential appointee, do the demands of the position induce stress relative to other previously held positions. This variable, "Stress," is measured as a five-point scale from "not stressful at all" to "very stressful." As an additional way to support the validity of this measure we calculated the (polychoric) correlation of Stress, with variables that were very clearly linked to generators of *personal* stress and, opposingly, *job* stress. The correlation with personal stress measures was very low: 0.0771 with the level of financial sacrifice, 0.0337 with family problems associated with the move,

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1   Missing data values are addressed here with *multiple imputation* (Little and Rubin 1983, 1987; Rubin 1987) using the "mice" (multiple imputation by chained equations) package in the *R* statistical environment. The commonly used methods of listwise deletion and mean imputation lead to biased and misleading results. Essentially, multiple imputation creates a posterior distribution for the missing data conditional on the observed data and draws randomly from this distribution to create multiple replications (5–10) of the original data set. The model analysis is performed on each of these replicates and then averaged (with a standard error adjustment). For a review of missing data issues in political science, see King et al. (2001). All data, *R* code, WinBUGS code, and diagnostics to implement the statistical model described here, as well as our data imputations used in this analysis, are available at the Web site (http://psblade.ucdavis.edu) for replication purposes.

Table 1
Stress for Those Leaving Government

Stress Level	1	2	3	4	5
Leave Frequency	1	3	7	20	9
Proportion	0.025	0.075	0.175	0.500	0.225

and 0.0525 with lack of time with the family. Conversely, the correlation with job stress measures was noticeably higher: –0.1298 with disclosure rules familiarity, –0.1609 with disclosure process satisfaction, 0.1545 with trouble levels in disclosure, and –0.1428 with a personal judgment of the confirmation time. Note that these are all population (descriptive) statistics (variables described in the appendix).

We consider the stress variable to be an omnibus measure of self-perceived effectiveness within the bureaucratic and political structure, satisfied or unsatisfied demands from the two primary principals (Congress and the White House), and overall utility received from senior government service. Of the 532 executives studied, forty left their Senate-confirmed position noting: "I resigned voluntarily because of disagreement with a specific policy or policies" or "I was asked to leave by a higher-ranking official or by the president." Table 1 gives the frequencies and proportions of these forty cases by stress ranking from 1 to 5 ("not at all," "slightly," "somewhat," "stressful," "moderately," "very"). It is clear from this summary that individuals leaving under such circumstances were concentrated at higher stress levels.

Because we have evidence in the data that stress is related to turnover, we can now ask, Which factors increase stress (and thus make an appointee more likely to leave government service), and which reduce it? It is important to note the means by which answers were solicited in this survey. There is evidence from psychological studies that humans are not good at judging the specific criteria that determine their personal and professional decisions (see findings in the classic work by Nisbett and Wilson, who wrote: "Though people may not be able to observe directly their cognitive processes, they will sometimes be able to report accurately about them" [1977, 231]). The questions used here, however, were not identified to the respondent as causally linked to the presence of stress or to a decision to leave government. Instead, they were provided as purely descriptive queries and were thus not meant to be individually attributable; hence it is the statistical model that makes *aggregate* claims through the use of these questions as covariates.

First, is there further evidence that the stress–work linkage is not substantially related to personal rather than professional causes? The Mackenzie and Light data also include queries about personal issues during and associated with executive service, including questions about the effect on appointees' families. In table 2 we cross-tabulate stress with the level of family problems caused ("the way in which your family was affected by your most recent acceptance of a full-time, Senate-confirmed presidential appointment"), which is measured from 1 to 5 ascending (see the appendix). Not only is there no discernible trend associating higher levels of stress with higher levels of family problems, there is actually greater mass toward higher stress and *lower* levels of family problems (this relationship is statistically significant, $p < 0.01$, using the Agresti, Mehta, and Patel [1990] exact inference test for ordinal tables). Second, we cross-tabulate stress with whether or not the appointee feels that service has produced "inadequate time to spend with family." Of those answering yes, there is no defined trend (and no statistical significance) within the

Table 2
Stress versus Family Problems/Time

Job Stress	Problems Caused					Time Loss	
	1	2	3	4	5	No	Yes
Not at All	36	4	9	1	1	24	27
Slightly	27	15	7	3	3	32	23
Somewhat	39	21	24	9	3	60	36
Moderately	67	36	30	52	15	175	25
Very	42	15	15	42	16	82	48

categories of stress. Apparently, then, self-reported stress is more closely linked to on-the-job factors than family considerations.

With reference to job-related factors, then, anecdotally and journalistically there is a common notion that the candidate's relationship with the confirming Senate committee can affect subsequent interactions between his or her agency and Congress in general (see, for instance, Century Foundation 1996). Thus, we include a variable that describes the executives' view of their relationship with this committee before and during the confirmation hearings: "Committee Relationship," measured from hostile to friendly (ascending). The higher the level of goal conflict between the presidential appointee and the confirming committee, the higher the level of stress should be.

Ideology is relevant to appointees' perceptions of their role in government and their relationship with other governmental actors (Keiser and Soss 1998; Mazmanian and Sabatier 1980; Ringquist 1995). Recalling that Democrats controlled both houses of Congress during our period of study except for the Senate from 1981 to 1983, more conservative ideology should create a greater potential for goal conflict between some principals (Congress) and political appointees (Aberbach and Rockman 1995). Therefore the specification includes the variable "Ideology," measured at five points from very liberal to very conservative.

We likewise posit that political knowledge or information should be an important construct in principal–agent settings. Appointees obviously come to their appointed positions with varying governmental experience that bears on their probability of success. This level of political knowledge is measured here by a dichotomous explanatory variable indicating whether or not they come from previous government employment at the state or federal level: "Government Experience." Therefore job experience is considered as a surrogate for political information; presumably, the more government experience an appointee has, the more *political* knowledge she or he has. Consequently, greater levels of political experience/information *should* be related to lower levels of stress.

A related variable, "Confirmation Preparation," indicates whether or not the candidate received pre-hearing preparation from the White House (personnel office, counsel to the president, general staff) or the relevant agency. If the White House is actively engaged in preparing the candidate, then it may be a signal that an appointee will be more responsive to the administration than Congress. This variable also provides another way of measuring political information. Whereas the variable government experience focuses on the political information that appointees bring with them to their new position, confirmation preparation is a measure of political information derived from cooperation with a particular political superior. That is, the executive seeks to mitigate a deficiency in political information to reduce the level of stress the appointee experiences in relation to Congress.

Political information is distinct from policy expertise. "Career.Exec-Compet" indicates the appointee's assessment of the overall competence of his or her career executive direct reportees (measured from low to high). Certainly one would expect the impact of this assessment to affect both the working relationship and the sense of effectiveness between political and career executives (Ban and Ingraham 1990; Ingraham 1987). The higher the level of bureaucratic competence an appointee perceives in her or his agency, the lower the level of stress should be (that is, higher levels of policy expertise should diminish stress).

We also include two variables to test the efficacy of policy expertise *within* an agency's principal–agent hierarchy. One question measures the extent to which bureaucratic subordinates were helpful in "day-to-day" contacts (i.e., along routine tasks requiring some knowledge about agency procedures), the variable "Career.Exec-Day2day," whereas the other, "Career.Exec-Diff," measures their helpfulness from "not helpful" through "very helpful." Through these variables, we can examine if expertise, the core of the information asymmetry assumption, operates in the same ways in relation to principals or other agents (Maranto 1991). Second, we use a question measured in the same way that asks to what extent these direct subordinates were helpful with difficult technical issues.

Policy expertise can occur within an agency or in interactions with other political actors outside the agency. We examine this latter type of political expertise in three different ways. First, the variable "President Orientation" indicates whether or not the executive identified the need for training on learning how the president's priorities are expressed through agency policymaking. Each executive was also asked to what extent senior career employees (i.e., direct subordinates and those perhaps one level below) were helpful in dealing with other parts of the bureaucracy ("Career.Exec-Liaison/Bur") and with Congress ("Career.Exec-Liaison/Cong"). Both of these measures deal with the relationship of bureaucratic expertise to outside actors. The first of these is a measure of comfort with subordinates sharing or using bureaucratic expertise with other agencies of government and hence allows us to examine what happens to information in a multiple-agent model. The second measure examines the relationship of bureaucratic expertise in relation to a principal, in this case Congress.

Finally, we include a variable ("Hours/Week") that provides the self-imposed workload that the appointee feels compelled to give. This ties in to several important threads: the required effort to manage career subagents and the time required to prepare for and respond to principals (Congress and the president), as well as the effects of technical and organizational complexity. This variable controls for the impact of such personal factors on the level of stress.

STATISTICAL MODEL

The empirical approach developed here is a Bayesian random effects specification for ordered survey outcomes.[2] This means that we include (both semi-informed and skeptical) prior distributions on unknown parameters, calculation of the posterior distribution of these

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2   Bayesian statistical methods have several distinct advantages over conventional approaches in modeling social science data (Bartels 1996; Gill 2002; Jackman 2000b; Poirier 1988; Western 1998, 1999), including direct expression of assumptions, a focus on probability-based statements, systematic incorporation of prior knowledge, and an ability to "update" inferences. Standard Bayesian statistical references include Berger (1985), Box and Tiao (1973), Gelman et al. (1995), and Robert (2001). The core tenets of Bayesian inference are an expression of uncertainty with probability statements, distributional descriptions of unknown quantities, and marginal inference through averaging over posterior uncertainty.

parameters by conditioning on the observed data, a random effects term to reflect the heterogeneity of these executives and their agencies, and consideration that the outcome variable is both categorical and ordered. This type of model specification is common in medical statistics, where it is difficult to assume iid data and ordered outcomes such as symptom severity or drug effectiveness are common (Gibbons and Hedecker 1997; Harville and Mee 1984; Hedecker and Gibbons 1994; Qu, Piedmonte, and Medendorp 1995; Tan et al. 1999).

Functional Form

The conventional way to conceptualize ordinal models in a regression context is to assume the existence of an underlying continuous latent variable with thresholds (Amemiya 1981; Davidson and MacKinnon 1993; Edwards and Thurstone 1952). Start with X, a matrix of explanatory variables, and the outcome vector Y observed on ordered categories: $Y_i \in \{1, \ldots, C\}$ for each respondent. Here Y is assumed to be produced by an unobserved (latent) variable U for the assessed ordered case or Y simplified from an observed but inconvenient U for the grouped continuous case, where the dimension of U matches that of Y such that each case has an individual utility. Therefore each subject's U_i is continuous on $\Re$, and the "response mechanism" for this i^{th} subject with regard to the rth category is given by $Y_i = r \iff \theta_{r-1} < U_i < \theta_r$. This requires there to be thresholds on $\Re$ such that $-\infty = \theta_0 < \theta_1 < \cdots < \theta_C = \infty$, where these $C + 1$ thresholds provide C categories, and only $C - 1$ thresholds need to be estimated. The vector of utilities across individuals in the sample, U, is thus determined by a linear additive specification of explanatory variables: $U = -X'\gamma + \varepsilon$ (or equivalently $U = X'[-\gamma] + \varepsilon$), where $\gamma = [\gamma_1, \gamma_2, \ldots, \gamma_p]$ does not depend on the θ_j and $\varepsilon \sim F_\varepsilon$. This means that for the observed vector Y, $P(Y \leq r \mid X) = P(U \leq \theta_r) = P(\varepsilon \leq \theta_r + X'\gamma) = F_\varepsilon(\theta_r + X'\gamma)$, and this is often called a cumulative model because $P(Y_i \leq r \mid X_i) = P(Y_i = 1 \mid X_i) + P(Y_i = 2 \mid X_i) + \cdots + P(Y_i = r \mid X_i)$.

Likelihood Function

We specify this F_ε distribution with the *ordered logit* model (nearly identical results were obtained here with alternative probit and cloglog specifications [Aitchison and Silvey 1957; McElvey and Zavoina 1975]) and add a random effects term (an assumed zero-mean vector b with values for each respondent to reflect personal and agency heterogeneity [see Beck and Katz 2001; Crouchley 1955]) to obtain the cumulative specification: $F_\varepsilon(\theta_r + X'\gamma + b) = P(Y \leq r \mid X) = [1 + \exp(-\theta_r - X'\gamma + b)]^{-1}$. Here $f_\varepsilon = F'_\varepsilon$ is the underlying distribution of the unobserved and the response mechanism $(\theta_{r-1} < U < \theta_r)$ that "slices" up the density, with the explanatory term $X'\gamma$ determining the shift of U on the latent scale. This gives the following likelihood function to be maximized with regard to γ and θ:

$$L(\gamma, \theta \mid X, Y) = \prod_{i=1}^{n} \prod_{j=1}^{C-1} [(\theta_j - X_i'\gamma + b_i) - (\theta_{j-1} - X_i'\gamma + b_i)]^{z_{ij}}$$

Here $z_{ij} = 1$ when Y_i falls in the jth category or zero otherwise, and $\Lambda()$ is the standard notation for the logistic function. The estimation process seeks coefficients and standard errors corresponding to each of the selected explanatory variables in X as well as for the threshold between categories of the outcome variable that separates the θ categories.

Priors

It is necessary and desirable to establish prior distributions for each of the coefficients to be estimated. We take the position of specifying relatively cynical priors for some coefficients and only slightly informed priors for others. Our priors are the normal distributions $p(\gamma_k) \sim N(\mu_{\gamma k}, \sigma^2_\gamma)$, $k = 1, \ldots, K$ for each of the K explanatory variables, and $p(\theta_j) \sim N(0, \sigma^2_\theta)$, $j = 1, \ldots, C - 1$ for the four latent variable thresholds. Here $\mu_{\gamma k}$ is 0 where we have no strong prior information (hence systematic expression of skepticism), and either 2 or -2 where we have some informed view of the direction that the coefficient is likely to take. The value $\sigma^2_\gamma = 10$ is selected for each γ_k, and $\sigma^2_\theta = 10$ is selected for each θ_j to express a level of noninformedness with regard to uncertainty of effect around the prior mean.[3] Thus our use of prior information through the Bayesian specification allows various views from the literature to be reflected in the model, something that cannot be done in a non-Bayesian context. Of course, the likelihood will overwhelm our priors if there is significantly more information offered by the data, and we also test for posterior sensitivity to these prior specifications.

We specify prior distributions for two coefficients with positive expected orientations (i.e., expected to reduce stress—recall the signed $-X'\gamma$). Having experience in government *should* benefit these executives, and the literature generally suggests that the corresponding coefficient is negative here (Allison 1979; Guy 2000; Wilson 1989, chap. 7). We subsequently stipulate a positive-mean normal prior for the coefficient corresponding to government experience. Also, the prior for committee relationship is given a positive mean because it would be rather unexpected that good relations with the confirming committee would lead to *more* stress on the job.

There are also two variables that logically warrant prior distributions with negative expected orientations (i.e., expected to increase stress). Given that the Democratic Party controlled the House for the entire period of study (twenty years) and the Senate for all but two years, it is justified to specify a negative mean prior on ideology. That is, *all* political appointees share an ideological affinity with their nominating president (or something close to it), but obviously not all of them will find that congressional relations make their work more effective and more rewarding (Fenno 1959; Mann 1964). The coefficient for Career.Exec-Liaison/Cong is given a negative mean coefficient prior because agents are expected to want to control information that flows to Congress, rather than have their subagents function as conduits without direct control.

The remaining variables are given zero mean priors either because there is little theoretical or practical motivation to give a signed prior or because the literature is contradictory. Prior centering on θ is not of great importance because the absolute *scale* of the latent variable is arbitrary (Fahrmeir and Tutz 2001). Giving these thresholds the same prior mean, however, actually causes the data to "work harder" to provide posterior separation of the threshold values and subsequent statistical reliability for the proposed categorization of the outcome variable. Finally, we stipulated a zero mean normal prior for

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3   The motivation for using diffuse normals as noninformed priors as opposed to uniform ("flat") priors is that we can get relatively uninformed forms while avoiding the problem of improper posteriors, which destroys any valid inferences and yet cannot always be easily detected. This is especially a concern in with random effects specifications where it can lead to a poor or nonexistent distinction between fixed and random effects. For detailed discussions with specific examples, see Carlin (1996); Hobert and Casella (1998).

the random effects term with an inverse gamma hyperprior for the variance with the hyperparameters that provide a diffuse form: $b_i \sim N(0, \tau)$, $\tau \sim IG(\delta_1, \delta_2)$.

The Posterior

Ordered choice models are relatively well developed in the Bayesian context (Albert and Chib 1993; Chen and Dey 2000; Johnson and Albert 1999), partly because of the easy inclusion of prior knowledge and the vast array of data and model specifications that can be accommodated through parameterizing random and fixed effects at different levels of hierarchical forms (for applications, see the collection of essays in Dey, Ghosh, and Mallick [2000]). In every case, however, posterior inference is a compromise between prior knowledge and information provided by the data. The combination here of prior specifications and the likelihood produce a posterior distribution according to Bayes' theorem:

$$\pi(\boldsymbol{\gamma}, \boldsymbol{\theta} \mid \boldsymbol{X}, \boldsymbol{Y}) \propto L(\boldsymbol{\gamma}, \boldsymbol{\theta} \mid \boldsymbol{X}, \boldsymbol{Y})p(\boldsymbol{\theta})p(\boldsymbol{\gamma})p(b \mid \tau)p(\tau)$$

$$\propto \prod_{i=1}^{n} \prod_{j=1}^{C-1} \prod_{k=1}^{p} [\Lambda(\boldsymbol{\theta}_j - \boldsymbol{X}_i'\boldsymbol{\gamma} + b_i) - (\boldsymbol{\theta}_{j-1} - \boldsymbol{X}_i'\boldsymbol{\gamma} + b_i)]^{z_{ij}}$$

$$\times \exp\left(-\frac{(\gamma_k - \mu_{\gamma k})^2}{2\sigma_\gamma^2} - \frac{\boldsymbol{\theta}_j^2}{2\sigma_\theta^2} - \frac{b_i^2}{2\tau^2} - \frac{\delta_2}{\tau}\right)\tau^{-(\delta_1+1)}$$

Unfortunately, although this joint posterior gives an exact mathematical expression for the collective distribution of the coefficients of interest conditional on the observed data, it does not easily facilitate marginalization and the calculation of individual moments through analytical integration. We therefore rely on the, now standard, Bayesian approach of stochastic simulation (Markov chain Monte Carlo).

Markov chain Monte Carlo (MCMC) substitutes analytical work by the Bayesian researcher with iterative simulation on the appropriate state space and summarization of the empirical quantities that result. The key idea is to design a Markov chain with the appropriate theoretical properties and run it until convergence to a stationary distribution, which defines the posterior of interest.[4] Once a specified chain is determined to have reached its *ergodic state*, marginal sample values behave as if they were produced by the posterior of interest from the model despite being mildly dependent through the Markovian property (Robert and Casella 2004). MCMC techniques revolutionized Bayesian statistics, starting with the review essay of Gelfand and Smith (1990), and are not completely new to the social sciences (Hill and Kriesi 2001; Jackman 2000a, 2000b; Martin and Quinn 2002; Quinn, Martin, and Whitford 1999; Smith 1998, 1999).

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4   Convergence to the desired limiting distribution (target posterior) eventually occurs for ergodic Markov chains. The fundamental lemma of Markov chain theory in the context of MCMC is the *ergodic theorem.* If a chain is positive (Harris) recurrent, and aperiodic on some state A, it is *ergodic.* If there exists a σ-finite probability measure P on the measure space H so that an irreducible Markov chain, θ_n, at time n has the property $P(\theta_n \in A) = 1$, $\forall A \in H$ where $P > 0$, then it is *Harris recurrent* (Athreya and Ney 1978; Harris 1956). An *aperiodic* Markov chain does not have a deterministic repeating cycle, except in the trivial case of cycle period length equal to one. Ergodic Markov chains have the important property

$$\lim_{n \to \infty} |P^n(\theta_i, \theta_j) - \pi(\theta_j)| = 0$$

for all θ_i and θ_j in the subspace (Norris 1997, 53). Therefore the chain has converged to its limiting distribution, and all future individual parameter draws are from the identical marginal distribution (Meyn and Tweedie 1993).

Table 3
Posterior Summary: Model for Survey of Political Executives

|	Mean	Std. Err.	95% Highest Posterior Density Intervals
Explanatory Variables			
Constant Term	1.20215	2.24169	
Government Experience	−0.65500	0.60664	
Ideology	−0.49140	0.32964	
Committee Relationship	1.14550	0.39131	
Career.Exec-Compet	1.73300	0.85088	
Career.Exec-Liaison/Bur	−2.81800	0.55620	
Career.Exec-Liaison/Cong	1.03675	0.49193	
Career.Exec-Day2day	−0.76595	0.38019	
Career.Exec-Diff	0.27780	0.29838	
Confirmation Preparation	1.02440	0.45753	
Hours/Week	−0.72720	0.42732	
President Orientation	1.94950	0.86787	
Threshold Intercepts			
None | Little	−5.93500	1.85782	
Little | Some	−2.69250	1.59126	
Some | Significant	1.19300	1.52653	
Significant | Extreme	8.40450	2.10379	

Note: $\hat{\sigma} = 6.04350$ (1.20325), dashed vertical line at 0.

THE RESULTS

The marginal posteriors are produced using the Gibbs sampler algorithm (Gelfand and Smith 1990) implemented in the WinBUGS package. The results from summarizing the Markov chain simulations are presented in table 3 along with reliability estimates. We ran five Markov chains, corresponding to the five replicate data sets from the multiple imputation process, from five different starting points, with five different random seeds, for one million iterations each, recording only the last half of the chain values for inferential purposes. The unrecorded early progress of the Markov chain allows a "burn-in" of the process to forget starting points and converge toward the stationary distribution. Because the model specification is relatively complex, we are motivated here to be conservative on the run time of the Markov chain.

The MCMC simulation results were subjected to a battery of convergence diagnostics, and there was no notable evidence of nonconvergence (Gelman–Rubin figures close to one, Geweke statistics well within [–2: 2], etc.). Figure 1 provides simultaneous running mean plots and density plots of the distribution for each coefficient marginal posterior. The running mean plots provide the ongoing marginal posterior mean as the chain moves from 500,000 to 1,000,000 iterations (dashed line), where 0.95 percent error bands are included (dotted lines). An informal local sensitivity analysis was performed by altering the variance of the specified prior distributions to make them more dispersed (Leamer 1978). The effect was not to substantively change the posterior results but, instead, to cause the Markov chain to mix slower through the state space and therefore to take longer to converge as well as longer to describe the posterior once converged (for a more thorough discussion of Markov chain mixing properties, see Cowles, Roberts, and Rosenthal [1999]).

Figure 1
Convergence Assessment: Running Means and Density Plots
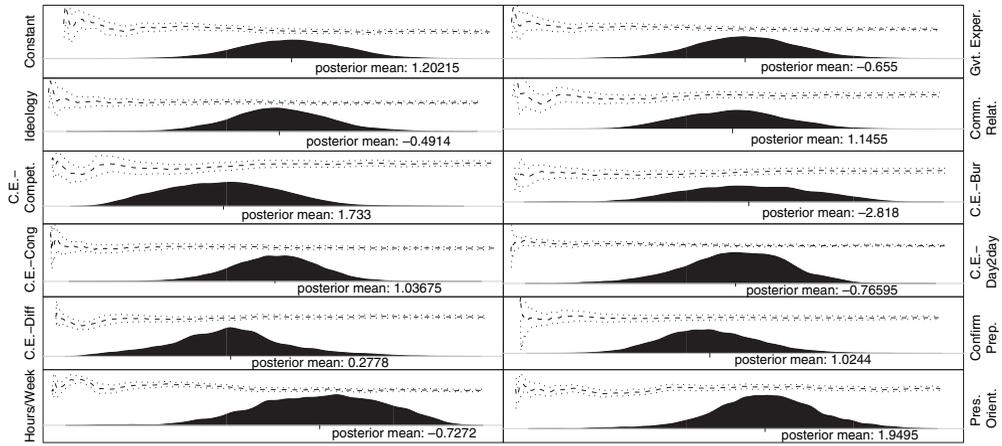
Overall the model appears to provide a good fit to the data, although not all of the coefficient estimates are as reliable as hoped.[5] Table 3 gives a graphical picture of the 95 percent highest posterior density (HPD) intervals along with a vertical line indicating the position of zero on the relevant scale. Like frequentist confidence intervals, an HPD region that does not contain zero implies that the coefficient estimate is deemed to be reliable; but instead of being $(1 - \alpha)$ percent "confident" that the interval covers the true parameter value, an HPD interval provides a $(1 - \alpha)$ percent probability that the true parameter is in the interval and subsequently probabilities that particular parameters are above or below some point of interest such as zero.[6] We see also that the general robustness of the stress thresholds lends support to the idea of varying incentive structures.[7] Specifically, if various

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[5]   Unfortunately, table 3 indicates that the marginal posterior distributions for "Government Experience," "Ideology," "Career.Exec-Diff," and "Hours/Week" are not statistically distinct from zero so as to be considered reliable in a standard regression context. Because the Bayesian perspective treats coefficients as random variables, however, we can say that there is a 0.87 probability that the coefficient for government experience is negative because this is the proportion of the posterior density below zero. By the same (Bayesian) logic we can also say that there is a 0.93 probability that the effect of moving up the ideology scale (toward strongly conservative) is negative, a 0.83 probability that increasingly helpful career executives have a positive effect, and a 0.97 probability that increased work hours have a negative effect. The reader is free to interpret these four findings in one of two ways: as modest but appreciable probabilistic evidence for a signed effect or (more traditionally by Fisherian thresholds) as dismissed effects.

[6]   More formally, the $100(1 - \alpha)$ percent HPD is the region of the parameter support for θ, that meets the criteria $C = \{\theta:\pi(\theta|x) \geq k\}$, where k is the largest number assuring that $1 - \alpha = \int_{\theta:\pi(\theta \mid x) > k} \pi(\theta \mid x)d\theta$. This is the region where the probability that θ is in the region is maximized at $1 - \alpha$.

[7]   The estimated threshold values here demonstrate an observable degree of separation. The key result is not whether they are sufficiently statistically distinct to survive a t-test on the unobserved and arbitrary scale (for they are obviously not *means*) but, rather, whether the estimated distances are wide enough to provide statistically reliable coefficient estimates for the covariates (see results in Crouchley 1995; Qu, Piedmonte, and Medendorp 1995; Tan et al. 1999). Amemiya (1981, 1514), McCullagh (1980, 118–20), and some other authors report them without associated standard errors for this reason (Crouchley 1995). Additionally, it is possible, but usually not interpretively necessary, to reparameterize these points from the scale of the linear predictor back to the natural ordinal scale (Hannah and Quigley 1996). Furthermore, it has been shown that the latent variable approach is even robust to poorly measured outcome variables and misspecified distributional assumptions on the latent variable scale (Ruud 1986).

effects exogenous and endogenous to the agency environment alter the executive's well-being, then this is evidence that the reward structure necessary to keep these individuals in place also must be varying. If the covariates were not able to induce separation of stress levels through the model, then we could not claim evidence for the hypothesized relationships.

The 95 percent HPD for the coefficient measuring the tone of the career executive's relationship with the confirming committee resides entirely on the positive side of zero, providing evidence that the individuals with friendlier (or at least less hostile) hearings have less stress on the job subsequently. When do members of Congress first express incentives for executive branch officials? Clearly the confirmation hearing is just such an opportunity. It is unsurprising, yet reassuring, to see that early positive relations with Congress provide a motivation to stay on the job by reducing subsequent stress.

The marginal posterior form corresponding to Career.Exec-Compet suggests that when the political executive acts as a principal within his or her own agency, subordinate competence within the agency leads to less stress (and by our extension, greater sense of accomplishment). This is predictable and quite logical: having subagents with greater competence within the organization means that productivity should be higher. It also implies the existence of the distinction between technical or policy expertise and political information, for the bulk of the work described by this question is almost certainly technical (Wilson 1989), meaning that political executives appreciate technical expertise possessed by their subagents. Conversely, the 95 percent HPD interval for Career.Exec-Liaison/Bur is entirely negative, suggesting that greater subordinate involvement in interagency communication is stress inducing. The implication is that when the subagent interacts with other subagents as well as potential rival executives in the wider *political* environment for the executive (Waterman, Rouse, and Wright 1998), then stress is increased. This also may reflect that a higher level of task complexity is performed by agents in these settings. In combination these two estimated coefficients provide direct support for the claim that within-agency managerial relationships affect the well-being of political appointees.

The executive's relationship to Congress also tells us about stress. It is complicated by the regularity of contact between the appointee's agents and members of Congress and their staff. That is, there is not only a hierarchical configuration of nested principal–agent relationships, there is also a feedback loop back to one of the highest two principals. Interestingly, increasingly helpful subagent contact with Congress (political expertise) decreases expected executive stress. Yet the appointee as a within-agency principal is clearly uncomfortable with open lines of communication to competing agencies managed by competing principals on a path that is not directly controlled by the principal him- or herself (Career.Exec-Liaison/Bur).

Looked at from the perspective of a single agency, these last two findings also point toward limits on the ability of the executives to control agency behavior through incentive structures. This supports the idea that the agent works with a more complex incentive structure than that implied by the traditional principal–agent model. Even in the presence of very certain incentives and congruence in congressional/presidential priorities expressed through incentive schemes, the political executive at the agency may be *unable* to maximize her or his utility function because of personnel constraints within the agency, thus providing an incentive to leave.

The mysterious result here is the placement of the HPD interval for the coefficient corresponding to Career.Exec-Day2day. This negatively signed effect implies that higher

levels of help by career executives in day-to-day matters increase executive stress. Why would subordinate subagent competence be appreciated but not help in handling routine tasks? One possibility relates to the question wording. When the career executive is performing more routine tasks within the agency, then she or he is less connected to regular management activities, thus increasing her or his administrative uncertainty. In addition, there is likely to be a diversity of preferences among lower subordinates, reflected in their handling of such tasks: a hierarchical (multilevel) principal–agent configuration (Waterman 1999).

Two explanatory variables bear directly on the *other* major principal: the president. The marginal posterior distribution for the coefficient on confirmation preparation implies that greater assistance in preparing for confirmation hearings sponsored by the White House or the attending agency leads to less stress once on the job. This indicates that it is possible for a supportive principal (in this case the president) to increase an agent's information base and thus reduce stress. This finding relates directly to the idea that for positive responders the administration is preparing this candidate for testimony before committees by increasing information levels in the agent pertinent to Congress. The other associated potential explainer indicates whether or not the political appointee believes that there should be a component of the formal orientation to the position that includes reviewing the president's policy objectives. Those who positively answered here had higher expected stress. The association implies that these executives felt that *they* needed more information about the president's priorities, which is synonymous in our construct with having more uncertainty in the incentive function as an agent.

In combination these results are important for two primary reasons. First, using stress as a surrogate for length of term, these results demonstrate that presidents can create some incentive structures designed to keep appointees on the job for longer periods of time, which in turn can provide a greater potential for continuing presidential influence over the bureaucracy over time. For example, better confirmation preparation, a closer orientation to the president, and more effective bureaucratic liaison with Congress can reduce stress.

Hence, with regard to the presidential appointment contradiction, there are variations in stress (and by inference variations in turnover rates). Those individuals who serve for shorter periods of time are more likely to exhibit characteristics related to Heclo's (1977) "government of strangers" paradigm, whereas those who remain on the job longer and develop more positive assessments of the competence of the career bureaucracy (see Michaels 1997) are more likely to more effectively represent the president's interests. Consequently, unraveling the riddle of the presidential appointment contradiction suggests that both sets of scholars are correct—but not in absolute terms. Appointments do not always result in increased presidential influence; nor do they always result in policy stalemates and isolation. Each outcome is possible. To better understand this point we need to examine other variations in political appointees' characteristics, as we have done here with stress and tenure.

Beyond addressing the presidential appointment contradiction our research makes a second theoretical contribution. It also examines the role of solidary and functional preferences as a potential cost (that is, stress) and demonstrates how various political factors can either exacerbate or ameliorate its tendencies. Like Brehm and Gates (1999), then, we show that solidary and functional preferences are relevant. Unlike them, we provide evidence of the potential constraints associated with these factors. Also, we show that these preferences, whether considered as benefits or costs, are relevant to the behavior

of political principals. Future research, then, should focus on how solidary and functional preferences can relate simultaneously to principals and agents in similar bureaucratic settings.

CONCLUSION

Executive branch agencies are not nearly as disorganized and leaderless as the presidential appointment contradiction implies. Yet relatively high political appointee turnover is a concern from the perspective of presidential influence over the bureaucracy. Therefore it is important to understand what factors lead to early exits from high-prestige, high-impact executive positions. Though much can be learned about individual trials and experiences from detailed interviews and biographic research, the narrative literature has not shed much light on common underlying trends.

We address the problem of systematically explaining appointee turnover by using population survey data for a twenty-year period, focusing on stress as an omnibus measure of executive self-assessment and departure decisions. Stress, as was shown, is a collective measure of solidary and functional costs that funnels frustrations and dissatisfactions into a single measure that is predominantly centered on professional rather than personal factors. Thus, our theoretical approach is similar to Brehm and Gates's (1999), except that rather than modeling positive solidary and functional preferences, we look at the negative analogues. This makes sense because leaving a high-level position early in an administration is typically a negative event.

The model indicates that a key cause of increased stress involves hierarchical and parallel relationships that are not directly controllable as they are in similar corporate settings. The results provide evidence that induced stress is attributable to the task of managing two competing principals: Congress and the president. In a more complex finding, when career executives reporting to the appointee have high levels of organizational competence it produces a positive effect, yet when these same underlings interact with other agencies outside the bureaucratic authority of the appointee it produces a negative effect. This suggests that highly technical agencies staffed with scientists and engineers should have longer executive tenure and agencies with broad interaction throughout government should have shorter executive tenure.

Other contributory factors that are more directly controllable are revealed in this analysis. Understanding the president's policy priorities is an important means of reducing stress. This, of course, can be a complex process if the president adjusts or changes his preferences. The relationship with Congress is also important. This makes sense because Congress can easily make professional life difficult for political appointees through hearings, general oversight, and of course appropriations. On the other hand, it is surprising to find only weak evidence for ideology as a determinant of stress, as notable conflicts between executive branch agencies and congressional committees have often been cast in ideological terms. These results suggest that, to some extent, presidents can take affirmative steps to encourage longer tenure and lower levels of stress, which in turn can increase their influence over the bureaucracy. It also explains why some appointees exhibit higher levels of stress and turnover consistent with the precepts of a government of strangers. Finally, we show that functional and solidary costs can perform a mediating role in this process, directly influencing the motivational patterns of political principals, as well as agents.

APPENDIX: DATA NOTES

This section summarizes the data format and coding decisions applied to the data set: *Presidential Appointees, 1964–1984* (Inter-university Consortium for Political and Social Research, #8458), principal investigators: G. Calvin Mackenzie and Paul Light (spring 1987). Categorical sums given for each outcome are exclusive of missing values.

1. Stress. The question was worded, "Thinking about your most recent service as a full-time, Senate-confirmed presidential appointee, how would you describe the impact of the demands of your work on your private life and your family? Compared with other employment experiences you have had, to what extent did your work as a presidential appointee create stress in your personal life or in relations with your family?" The responses were coded from "not stressful at all" (1) through "very stressful" (5), with the following categorical totals: $n_1 = 51$, $n_2 = 54$, $n_3 = 95$, $n_4 = 198$, $n_5 = 130$.

2. Government Experience. Coded 1 if previous employer was U.S., state, or local government, $n = 246$; and 0 otherwise, $n = 285$.

3. Ideology. This variable ascends across five points according to "very liberal" (1), $n = 19$; "liberal" (2), $n = 113$; "moderate" (3), $n = 182$; "conservative" (4), $n = 179$; and "very conservative" (5), $n = 37$.

4. Committee Relationship. This question was worded, "How would you describe your interactions with committee members prior to and during your confirmation hearings?" and was measured on a five-point scale from "hostile" (1) to "friendly" (5). The categorical totals were $n_1 = 4$, $n_2 = 11$, $n_3 = 40$, $n_4 = 131$, and $n_5 = 337$.

5. The survey contains a bank of questions asking the appointee to rate subordinate senior career executives in his or her department. These are all measured on a five-point scale with the following individual wordings:

   (a) "Career.Exec-Compet." Evaluation of *competence*, from "low competence" (1) to "high competence" (5), with the following totals: $n_1 = 3$, $n_2 = 18$, $n_3 = 64$, $n_4 = 240$, $n_5 = 199$.

   (b) "Career.Exec-Liaison/Bur." Helpful as a liaison with the federal bureaucracy, from "not helpful" (1) to "very helpful" (5), with totals $n_1 = 14$, $n_2 = 24$, $n_3 = 89$, $n_4 = 208$, $n_5 = 191$.

   (c) "Career.Exec-Liaison/Cong." Helpful as a liaison with Congress, "not helpful" (1) to "very helpful" (5), with totals $n_1 = 43$, $n_2 = 103$, $n_3 = 155$, $n_4 = 111$, $n_5 = 109$.

   (d) "Career.Exec-Day2day." Helpful in handling day-to-day management tasks, "not helpful" (1) to "very helpful" (5), with totals $n_1 = 4$, $n_2 = 22$, $n_3 = 79$, $n_4 = 225$, $n_5 = 195$.

   (e) "Career.Exec-Diff." Helpful with technical analysis of difficult issues, "not helpful" (1) to "very helpful" (5), with totals $n_1 = 7$, $n_2 = 22$, $n_3 = 80$, $n_4 = 161$, $n_5 = 257$.

6. Confirmation Preparation. This question asked whether various elements of the White House or host agency helped prepare the nominee for Senate committee testimony. It is dichotomized according to no help from the White House or agency (0) or some form of preparation help (1). In total, eighty-eight appointees received direct help, and 444 did not.

7. Hours/Week. The question asks, "Including the time you spent working at the office, at home, and in other locations, how many hours per week on average did you spend working on your job during your most recent service as a full-time, Senate-confirmed presidential appointee?" Responses are coded according to less than forty hours per week (1), $n = 0$; forty to fifty hours per week (2), $n = 27$; fifty-one to sixty hours per week (3), $n = 115$; sixty-one to seventy hours per week (4), $n = 187$; seventy-one to eighty hours per week (5), $n = 140$; eighty-one to ninety hours per week (6), $n = 39$; and more than ninety hours per week (7), $n = 21$.

8. President Orientation. This is a dichotomous response: a positive indication means that the respondent placed "learning the president's policy objectives" as "the most important component of an orientation program for new presidential appointees, one especially designed to serve the needs of appointees new to the federal government." A total of eighty-two ranked this first, and 425 picked another topic or none at all.

9. "Financial.sac." A five-point scale measuring the level of self-reported financial sacrifice made to take the position, from "very significant financial sacrifice" (1) to "very significant financial benefits" (5), with totals $n_1 = 155$, $n_2 = 122$, $n_3 = 199$, $n_4 = 26$, and $n_5 = 3$.

10. "Family.probs." A five-point scale concerning family impacts from accepting the position, from "my family had no problems" (1) to "my family had significant problems" (5), with totals $n_1 = 197$, $n_2 = 82$, $n_3 = 80$, $n_4 = 99$, and $n_5 = 35$.

11. "Family.time." General question about family effects while on the job, reduced to a dichotomous response: respondent indicates that the most difficult family issue was "inadequate time to spend with family" (1) or otherwise (0). A total of forty-nine answered affirmatively.

12. "Familiar.disclosure." A three-point scale concerning knowledge about the confirmation process, measured at "I was not familiar with them at all" (1), "I was familiar with their broad outlines" (2), and "I was very familiar with the details" (3). Totals were $n_1 = 67$, $n_2 = 256$, and $n_3 = 203$.

13. "Satisfied.disclosure." Measures general satisfaction with various aspects of the disclosure process, from "very dissatisfied" (−2) to "very satisfied" (2). Totals were $n_1 = 25$, $n_2 = 48$, $n_3 = 103$, $n_4 = 159$, and $n_5 = 185$.

14. "Trouble.disclosure." A five-point scale measuring the level of trouble that the appointee had in collecting materials for the confirmation process, from "no difficulty at all" (−2) to "great difficulty" (2). Totals were $n_1 = 17$, $n_2 = 75$, $n_3 = 88$, $n_4 = 116$, and $n_5 = 228$.

15. "Judge.confirm.time." A response to the question, "How promptly did the committee(s) complete action on your nomination?" Responses measured on a five-point scale, from "very slowly" (1) to "very promptly" (5), with totals $n_1 = 42$, $n_2 = 45$, $n_3 = 61$, $n_4 = 121$, and $n_5 = 258$.

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