Controlling Agency Choke Points: Presidents and Regulatory Personnel Turnover*

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* A previous version of this paper was presented at the annual meeting of the Midwest Political Science Association Conference, Chicago, IL, April 16-19, 2015, the Price School of Public Policy Junior Faculty Workshop, University of Southern California, March 24, 2015, the annual meeting of the American Political Science Association, Washington D.C., August 28-31, 2014 and the annual meeting of the European PFedEx Off. @ Wash. D.C. JW Marriottolitical Science Association Conference, Edinburgh, UK, June 19-21, 2014. We thank the participants in those sessions for very helpful comments as well as Tony Bertelli and George Krause. We also thank Mitch Boynton, Qrinon, and Julianna Lewis for valuable research assistance and helpful feedback. We thank the Center for the Study of Democratic Institutions at Vanderbilt University for financial support for this project.
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Modern democratic governance is increasingly bureaucratic governance. The legislative achievements of the Obama Administration are large, complicated public policies whose ultimate contours will be determined by administrative officials. Following the passage of legislation, such as the Affordable Care Act or Dodd-Frank Wall Street Reform and Consumer Protection Act, agency officials are called upon to supply important policy details left vague by that legislation, typically through the rulemaking process. Executives in the Centers for Medicare and Medicaid Services critically shape the enforcement of health care market reforms and the operation of health insurance exchanges. Agency officials in the Consumer Financial Protection Bureau determine the content and stringency of rules relating to the types of investments banks can make and the business practices of mortgage brokers, payday lenders, and credit card companies. It is these agency officials who largely determine the success or failure of President Obama’s signature policies.

If presidents wish to see their policy priorities implemented, they need to control the rulemaking process and agency enforcement decisions. To do so, they need to establish control over personnel occupying key decision-making positions. Some positions in agencies have more influence on the pace and content of policy change than others (see, e.g., Haglund 2014; Kumar 2009; Parsneau 2013; Lewis and Waterman 2013). Presidential personnel officials have referred to key positions in agencies as “choke points” for policymaking, suggesting that control over these positions is vital if the president is to control the agency (Ingraham et al. 1995; Lewis 2013). It is no surprise that President Obama, like presidents before him, allocated significant time toward transition planning, particularly related to executive branch personnel (Burke 2009; Kumar 2009; Light 2008).
Control of some key positions is straightforward since these positions are filled by political appointment, but others are significantly more difficult for presidents to influence.¹ There are about 3,000 appointees in policymaking positions in an executive establishment comprised of 2.85 million civilian employees. Given the size and scope of the executive branch policymaking, important decision making positions are necessarily filled by career professionals who are protected from removal by civil service law and regulations. Since presidents often rely on these civil servants for the implementation of policy, they possess incentives to control those civil servants in important regulatory positions. Presidents may adopt strategies to marginalize those career executives who do not support their policy priorities.

Although presidents and their appointees may adopt strategies to control bureaucrats in key regulatory positions, the decisions of career executives ultimately affect the extent of political control in part because of the protections that civil service rules provide. Career bureaucrats may choose to exit their agencies and seek employment in the private sector or another agency if the costs of remaining exceed the benefits. If career executives perceive a loss of influence or disagree with the policy priorities of the president, they may strategically seek other employment rather than remain in the agency. They may also depart because of promising outside opportunities. Regardless of their motivation, their decision to leave government service provides presidents the opportunity to promote career executives who support their agenda.

Despite substantial scholarly progress on understanding presidential decision making with regard to presidential appointees, we know comparatively less about presidential efforts to control key regulatory positions filled by career executives and the response of executives to

¹ The exception is positions whose terms are set for fixed terms and whose occupants can only be removed “for cause.” For a description of these positions and a full list, see Lewis and Selin 2012.
presidential strategies. There have been several instances of appointees targeting and marginalizing ideologically divergent bureaucrats that gained widespread public attention (e.g., the Nixon and Reagan administrations) and scholars have examined executive self-reports from interviews and surveys (e.g., Aberbach and Rockman 2000; Golden 2000; Maranto 1993). Knowledgeable, experienced, career executives are vital for the successful implementation of complex policies. Yet, our knowledge of presidential strategies and their effect on career executives is limited.

In this paper, we assess presidential efforts to control key agency positions filled by career executives by examining turnover among career executives responsible for major rules between 1995 and 2013. Turnover may be driven by the marginalization of career bureaucrats, the decisions of bureaucrats to exit their position by choice, or other factors such as performance. We analyze the probability that an agency executive departs her position working on a major rule before the rule is completed. First, we test whether departure from a rule is affected by policy conflict between key regulatory officials and the presidential administration. To do so, we assess whether party change in the White House and the partisan affiliations of regulators affect the probability of turnover. We also examine the influence of factors that might lure personnel from their position in the civil service into private sector employment. We test whether departure is

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2 A rule is defined as major if it is estimated to have an annual impact of $100 million or more on the economy or meets other criteria defined by the 5 U.S.C. 801 (P.L. 104-121). The Administrator for the Office of Information and Regulatory Affairs has the final authority to classify a rule as major. Source: Reginfo.gov, http://www.reginfo.gov/public/jsp/eAgenda/StaticContent/201310/Preamble_8888.html, Accessed on July 23, 2014.
affected by the anticipation of impending party change in the White House and favorable economic conditions in the private sector.

Our analysis finds evidence that regulatory policy officials are more likely to stop working on important rules due to both marginalization and strategic exit. Both causes of turnover enhance the president’s ability to assert control over key positions held by career service personnel, because turnover provides them with the opportunity to promote like-minded bureaucrats. We conclude that U.S. presidents have substantial latitude to reshape the key regulatory positions in government, partly because of voluntary choices made by regulatory officials.

**Presidential Control and Agency Choke Points**

The president’s most important tool for controlling agency policymaking is the constitutional authority to nominate all principal officers of government. Scholarship has mainly focused on presidential strategies for controlling agency personnel through their appointments. Existing research has examined presidential and congressional efforts to increase the number and penetration of appointees, particularly to control agencies central to the president’s agenda or those with policy views that differ the president’s (Heclo 1977; Lewis 2008; Lewis and Moe 2013; Light 1995; National Commission the Public Service 1989, 2003). It has also explored the factors presidents take into account in the selection of appointees, such as competence, patronage, congressional requests, and symbolic value, but focuses particularly on the increasing importance of loyalty to the president (Edwards 2001; Fenno 1959; Mackenzie 1981; Mann 1964; Moe 1985; Pfiffner 1996; Tolchin and Tolchin 1971, 2010; Weko 1995; Wood and Waterman 1994). Increasingly, scholars are examining how presidents distinguish among agencies and positions and how presidents accomplish electoral and policy goals through the

An important insight of the work on presidential appointment strategies is that not all positions are created equally (Ingraham et al. 1995; Kumar 2009; Mann 1964, 85; Parsneau 2013; Pfiffner 1996; Weko 1995). Inside each agency are officials whose choices can determine whether a policy is produced and the content of that policy. Control over these positions determines the degree of agency responsiveness to political direction. These include positions in the budget and general counsels’ offices as well as those positions responsible for shepherding rulemaking and managing key programs or divisions. While personnel officials have reported anecdotally on the importance of agency “choke points” at least since the 1970s, researchers have shed very little light on presidential efforts to control these key agency positions.

There has been considerably less research on how bureaucrats respond to presidential control strategies. Although one response to political control is shirking or sabotage, another is for bureaucrats with skills to exit the agency (Brehm and Gates 1997; Golden 2000). Research has examined how job security, agency specific expertise, and policy discretion affect a bureaucrat’s incentives to remain in the agency and develop expertise (Gailmard and Patty, 2007, 2012; Stephenson 2011; Bertelli and Lewis, 2013). Bureaucrats’ intention to leave the civil service increases when policy discretion is low and when the private sector job market conditions improve (Bertelli and Lewis 2013). Despite the impact that career executives have on agency policy, we know relatively little about what shapes their response to strategies of presidential control and changing political conditions in the agency.

Explaining Turnover in Key Regulatory Positions
Individuals in key regulatory positions or choke points have the ability to slow down or shift policymaking toward their preferred outcomes. Control over these key positions is vital for the successful implementation of presidential policy priorities. By exploring turnover in important regulatory positions, we can illuminate the extent to which new presidential administrations promote civil servants of their choosing to take over important tasks like rule management. This section first discusses constraints on the president’s ability to alter the composition of personnel in the bureaucracy and the strategies presidents have employed to circumvent constraints. Then we consider the conditions under which turnover in regulatory positions is likely to occur. We argue that turnover in the management of major rules is affected by the actions and incentives of presidents and career executives.

**Constraints on Turnover**

Presidents operate within a set of institutional constraints on their ability to alter the composition or placement of bureaucrats. Congress has created a personnel system loosely divided between political appointees and career executives having different levels of protection against removal (Carpenter 2005; Gerhardt 2001; Johnson and Libecap 1994; Kaufman 1965; Nelson 1982; Raadschelders and Lee 2005). The ease of transfer or removal varies depending upon the location of the regulatory official in the hierarchy. Political appointees are the easiest to remove as they are expected to serve at the pleasure of the president while career professionals in the traditional civil service are the most difficult.

While new presidents may possess strong incentives to control key positions in agencies, they are limited in their ability to alter the composition of the incumbent regulatory team by civil

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3 About one-third of appointees require Senate confirmation. Among these appointees, there is a subset that cannot be removed from office by the president except for cause (Lewis and Selin 2012).
service regulations that apply to the bulk of agency employees. Merit system principles require that civil service employees be hired, promoted, demoted, and fired on the basis of merit. Disagreements over politics or policy are not legitimate motivations for transfer or removal. Ideally, civil servants serve either party equally well, and merit, rather than politics, determines position and pay. Between the top layer of appointees and the traditional civil service is the Senior Executive Service (SES), a mezzo level of managers comprised of career employees and a limited number of political appointees designated noncareer members. Presidents have greater flexibility to reassign a member of the SES giving administration officials the ability to put in place people of their own choosing in key positions.

While civil service rules provide protections against removal, enterprising presidential administrations have found ways of working around the spirit, if not the letter, of the laws governing the civil service system. New administrations can make determinations about which career executives (in their view) worked too closely with the last administration through “lizard lists” provided by other agency employees or their own agency review teams’ study of the key policymaking personnel and activities. Nixon White House Aide, Fred Malek, famously circulated the *Federal Political Personnel Manual*, colloquially known as the “Malek Manual”, to administration officials. This document detailed informal ways of working around civil

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4 Increasingly, Congress is granting to agencies authority to create their own personnel systems outside the traditional merit system but these agency-specific systems generally adhere to merit system principles in their design and application.

5 In total, no more than 10 percent of the SES may be comprised of noncareer members.

service rules to get civil servants to leave their jobs creating vacancies to be filled with ideological allies.\textsuperscript{7} Recommended tactics included bluntly asking the executive to move on or assigning them to a project where they have responsibilities (like travel or a new location) that make it difficult for them to remain. Alternatively, appointees were encouraged to use reorganizations or parallel processes to marginalize or dislodge troublesome career executives from key positions. Famously, Reagan’s first EPA administrator, Anne Gorsuch, compiled hit lists of personnel whose policy preferences conflicted with those of the administration and targeted these employees for reassignment, demotion, or removal (Golden 121-126). At present, there is very little systematic information about when presidents and their appointees transfer civil servants from key positions on a widespread basis or how bureaucrats respond to targeting.

\textit{Explaining Turnover: Marginalization}

Presidents and their teams will exert effort to control agency choke points, provided that benefit of doing so is worth the cost. As the policy preferences of career bureaucrats and the presidential administration diverge, the benefits of controlling these positions increase. There are conditions under which preference divergence and thus marginalization tactics are more likely. First, if the past administration succeeded in promoting career executives sympathetic to their policy views, then policy disagreement between the president and career executives in important

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\textsuperscript{7} Testifying before Senate committee, Malek detailed how the administration would submit lists of names to agency personnel offices to give that “political push” so that the right people were promoted when vacancies arose. (Cole and Caputo 403)
positions is likely to be greatest following partisan change in the White House. The extent of policy disagreement between the administration and the career executives should be less when a president replaces another of the same party or the president serves a second term. Therefore, the incentives for presidentially-generated churn in agency personnel are greatest after a party change in the White House.

Although civil servants are presumed to be neutral, many possess political and policy views that affect their ability to work with certain administrations. Appointees running agencies may question the trustworthiness and neutrality of those who openly affiliate with the opposition and prefer to reassign important task to other employees. One open sign of a bureaucrat’s partisan affiliation is their record of partisan giving. This information is readily available to political overseers questioning a bureaucrat’s loyalties. We expect that the probability of marginalization will increase if the bureaucrat is affiliated with the opposition party.

*Explaining Turnover: Exit*

Up to this point, the discussion of key policymaking positions has focused on one side of this decision, that of the presidential administration. But, the choices of incumbent officials also shape the extent of presidential control, partly because of the protections that civil service rules provide. Career civil servants may choose to apply for another position in government or exit the civil service if the benefits of outside employment exceed the costs of remaining in their current position. Federal executives in key policymaking positions are motivated by a combination of

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8 There is a selection effect at work here. Executives that reveal themselves as unable to work with the administration are more likely to be removed so that by the time an administration leaves office, the only executives that remain in key positions are those that can work effectively with the current administration.
compensation and some form public service motivation (Perry and Wise 1990). For these executives, the value of their work is affected by both pay and benefits and the ability to influence policy or advance the agency’s mission. Their decision to remain in public service will therefore be affected by the value they derive from their position in the agency as well as the availability and attractiveness of private sector job opportunities (Bertelli and Lewis 2013).  

Federal executives are political animals. They understand the impact of presidential elections and can predict with varying degrees of accuracy the effect of a new administration on their own work and policymaking in their agency generally. Changes in expected policy influence will affect an executive’s decision to seek private sector employment. If they worked closely with the previous administration and believe a loss of policy influence is imminent, they may independently pursue a move rather than remain in the agency under a new administration. If they disagree with the policy priorities of an incoming administration and anticipate conflict, they may also conclude that it is preferable to exit their position. Therefore, during election years, when party change in the White House is likely, career executives in policymaking roles should depart at higher rates.

The decision to depart the civil service will also be affected by the attractiveness of private sector options relative to the civil service. Changes in the actual or expected compensation will shape the career choices of executives. If the compensation provided by outside employers goes up making private sector employment more desirable, then executives are more likely to depart government.

This highlights a form of presidential influence that does not require overt presidential action. If agency executives depart rather than work with a new administration, new presidents

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9 The survey evidence provided by Bertelli and Lewis is further supported by case studies (Golden 2000).
benefit because they do not need to take action to marginalize career executives. In addition, presidents then have the opportunity to replace those who depart with civil servants that more closely align with their preferences. Regardless of whether career executives exit to avoid presidential control strategies or to pursue opportunities, their departure augments the president’s ability to shape the career service personnel who occupy important positions. Of course, there will be cases where career executives hang on and have to be consciously worked around when they fail to get the message, have few other options, or believe they can prove their professionalism and work with the new administration effectively.¹⁰

In sum, the incentives of both presidential administrations and career bureaucrats affect turnover in key policymaking positions. Presidents should initiate more turnover in key rulemaking positions when policy conflict between the career bureaucrat is high. The decisions of career executives also affect agency turnover. If executives expect to lose influence under or do not want to work with the new administration, they will choose either to exit their current role for another position in government or leave the civil service altogether. In the following section, we test the following hypotheses:

**H1 Party Change Hypothesis:** *Turnover in key regulatory positions increases following a presidential election, particularly if there is a party change.*

**H2 Out Party Hypothesis:** *Turnover in key regulatory positions increases when the career executive is clearly a member of the opposition party.*

**H3 Strategic Exit:** *Turnover in key regulatory positions increases in the year preceding a new presidential administration, particularly if party change in the White House is likely.*

¹⁰Anecdotally, however, a number of senior executives explain their decisions to depart government with the arrival of a new administration in the terms presented here. Interview with Carol Okin, Office of Personnel Management, October 27, 2006.
H4 Labor Market: *Turnover in key regulatory positions increases when the private sector labor market is stronger.*

### Data, Variables, and Methods

To examine the presidency and performance-driven turnover among key regulatory personnel, we first need a means of identifying key regulatory personnel. This can be difficult since regulatory officials are often career professionals that are easily observable only to the administration and particularly attentive congressional staff or interest groups. Fortunately, existing regulations require that federal agencies provide information regarding rules in process to the Office of Management and Budget every 6 months. This creates a means of identifying important regulatory officials.\(^{11}\) Submissions for major rulemakings in agency regulatory plans include agency contacts that are “knowledgeable about the rulemaking action.”\(^ {12}\) These are the key agency officials leading the development of a rule within the agency.\(^ {13}\) These agency officials are:

\begin{itemize}
  \item Agencies provide information on rules in process for the *Unified Agenda of Federal Regulatory and Deregulatory Actions*, which is a compilation of regulations being developed by federal agencies published every 6 months.
  \item To verify this we also interviewed a large number of randomly selected agency contacts. See Appendix A for a description. When queried about agency contacts, bureaucrats commonly responded that agency contacts are responsible for “overseeing the development and clearance of a rule” or its “main author”. Email communication, Agency Contact, Department of Health and
\end{itemize}
executives have titles like special counsel, administrator, deputy chief or senior advisory. From these submissions, we collect information on the lead agency contacts for all major rulemakings between 1995 and 2013. There are 866 different career executives listed as lead contacts on 957 major rulemakings between 1995 and 2013.

Agencies submit regulatory plans twice a year in the Spring and Fall. This allows us to observe the agency contacts for a rule every 6 months to determine whether they stop working on

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14 For the subset serving between 2007 and 2013, the median salary is $134,500 and more than 88% earn more than $100,000 per year (Source: Fedsmith website using Office of Personnel Management data; [http://fedsdatacenter.com/federal-pay-rates/index.php](http://fedsdatacenter.com/federal-pay-rates/index.php), accessed June 7, 2014). This implies that almost are at or above the GS14 level and a significant number are in the Senior Executive Service. The GS system ranges from GS1 to GS15.

15 Of the entire population of major rules, 159 list more than one contact. We focus here on the lead agency contact but also estimate models that include all contacts. Results are displayed in **Appendix B Table 1**.

16 Since we are focusing on career executives serving as “choke points”, we exclude observations where the agency contact is an appointee (7 agency contacts). Models estimated with the appointee rule-person pairs included do not alter results. Appointees, not surprisingly, are estimated to depart more quickly than career executives.

17 We exclude 40 rules during the 1995 to 2013 period where no contact was listed and 74 rules where contacts departed and later returned to work on a rule.
a rule before action is complete.\textsuperscript{18} We analyze regulators’ departure on 1,338 rule-person pairs, which yields 4,891 observations all together. In 392 of the 1,338 rule-person pairs, a regulator departed before work on the rule was complete. The median amount of time for a contact to work on a rule was 3 plans (i.e., 1.5 years) and the longest time was 25 regulatory plans or 12.5 years.\textit{Appendix A: Data Collection} contains a complete description of the data, how it was collected as well as checks on its validity.

\textit{Key Independent Variables}

To evaluate whether presidents instigate turnover among regulatory officials, we assess the probability of departure from a rule after a party change in the White House. If presidents are successful in getting control of agency choke points, then we should see an increase in the probability of departure when a new president from a different party assumes control of the White House. We code 2001-2004 and 2009-2012 with a 1 and all other years with a 0. To evaluate the possibility that individual regulator ideology influences turnover, we include a variable that accounts for whether the regulator’s political giving behavior revealed them to be

\textsuperscript{18} A completed action is most frequently the successful promulgation of the rule, but can also be its termination, withdrawal, the merger with another rule, or other actions. When queried about why contacts are listed in one period and not another, the regulators responded similarly, saying, a change in agency contact “indicates a change in personnel working on the rule,” and occurs “if individual is no longer working at the agency or no longer on the rule.” Email communication, Agency Contact, Equal Employment Opportunity Commission, October 6, 2014; Email communication, Agency Contact, Department of Veteran’s Affairs, October 7, 2014.
from a party different from the sitting president. Following a search of FEC records, we coded all regulators with a 0 if they gave no money or if they appeared to belong to the same party as the sitting president. They were coded with a 1 if they gave and appeared to belong, based upon their giving, to a different party from the president (4.1%).

We also evaluate whether regulatory officials strategically exit their position. Regulatory officials may also anticipate the arrival of a new administration and look to exit during an election year. We code all presidential election years with a 1 (1996, 2000, 2004, 2008, 2012; 26% of observations) and other years with a 0. Since the effect of the election year on a regulatory officials’ decision to depart will be influenced by their assessment of the likely outcome of the election, we interact election year with the incumbent president’s approval in September of the year of observation (mean 49.5; s.d. 9.9; min 30, max 66). Our expectation is that more personnel will leave during an election year, but the effect will be moderated if it is probable that the incumbent party’s candidate will be elected.

Regulators may also respond to private sector job market conditions and choose to exit the agency. To account for private sector wages, we include the change in the Social Security

19 We have also estimated models that include measures of whether or not the agency is on the president’s policy agenda and the ideological distance between the president and the agency. These models and details about specification and measurement are included in Appendix B.

Table 2. In models that include these measures, the estimate on ideological distance is negative and significant (indicating lower hazards of departure) except when an agency is on the president’s agenda and there is a party change.

20 Three donors out of 109 donors (including appointees) gave to both parties and in each case they gave overwhelmingly to one party. Donors were only coded as out party if they gave only to one party and that party differed from that of the president.
Administration’s annual wage index for all workers in the United States. Our expectation is that the probability of departure will increase when private sector wages increase. If this is the case, president’s ability to shape those personnel in key positions is improved if their tenure in office coincides with a robust private sector labor market.

21 This is the percentage change in average wages for all workers for each year. It is computed by the Social Security Administration based upon data provided by employers to the Internal Revenue Service regarding wages. This data comes directly from the SSA (http://www.ssa.gov/oact/cola/awiseries.html, accessed June 22, 2015). We have also estimated models using percentage change in gross domestic product and unemployment as measures of private sector opportunities. Increases in GDP are estimated to significantly increase the hazards of departure (p<0.02). In models with percentage change in GDP included, the coefficient estimates on the political variables are smaller and less precise, often marginally significant or significant in one-tailed tests. Higher unemployment is estimated to decrease the hazards of departure (p<0.09). In models with unemployment data used, the coefficients on the political factors are smaller and are estimated less precisely. The primary political effect for which we can reject the null is the effect that being from a member of the outparty has on departure rates after party change in the White House. The outparty effect is robust across these models. Data on percentage change in GDP comes from Table 1.1.1 from the Bureau of Economic Analysis National Income and Product Account Tables (http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=1&isuri=1, accessed November 22, 2013). Unemployment data come from the Bureau of Labor Statistics Current Population Survey (http://data.bls.gov/timeseries/LNU04000000?years_option=all_years&periods_option=specific_periods&periods=Annual+Data, accessed November 1, 2013).
Controls

Of course, other factors, such as agency characteristics or the features of rules may influence the probability a person stops working on a major rule.\textsuperscript{22} We account for differences among agencies that may affect turnover with agency fixed effects. To account for important differences among rules, we control for a number of factors. We include an indicator for whether the rulemaking is subject to statutory deadline (0,1; 0.33).\textsuperscript{23} We include an indicator for whether the rule is \textit{economically significant} (0,1; 0.58). \textit{Economically significant} rules are calculated to have an annual effect on the economy of greater than $100 million. We control for whether the rule is covered by section 202 of the Unfunded Mandates Reform Act of 1995. This law requires that agency officials prepare a written statement including an analysis of the costs and benefits of the mandate for all rules that may result in expenditures by state, local, and tribal governments of more than $100 million (0,1; 0.89).\textsuperscript{24} One potential complication is that some rules list multiple agency contacts. We include an indicator for such rules since they often are larger and more

\textsuperscript{22} Differences among individuals may also influence departure rates. We have estimated models that control for the length of time a rulemaker has been involved in major rulemaking as a measure of experience. Estimates suggest the hazards are decreasing for the most experienced rulemakers, perhaps suggesting a selection effect. In no cases could we reject the null of no effect of longevity.

\textsuperscript{23} We have also estimated models controlling for the presence of judicial and agency-set deadlines and the results are similar.

technically complex rules (0,1; 22%). On some such rules each agency contact reflects a distinct area of expertise pertinent to the rule.\(^{25}\)

**Methods**

There are a few obstacles to estimating the conditional probability that an agency contact stops working on a major rule (as defined by the individual no longer being listed as an agency contact). First, since the probability that a person leaves their position working on a major rulemaking is influenced by how long they have been working on the rule, the observations are non-independent. In other words, there is duration dependence from observation to observation. Second, we do not observe regulatory officials after the rule is completed (i.e., right-censoring). We do not observe whether the person would have stayed or departed if work on the rule had continued. Finally, whether or not we observe whether the person stayed or departed is influenced by the same factors that influence departure. In particular, whether or not a rule is completed is influenced by the same factors that may influence the departure of an agency contact.

To address these modeling problems, we estimate two types of models. First, we estimate a series of Cox proportional hazard models that model the duration dependence (i.e., hazard function) directly and account for censoring in the way different observations contribute or do not contribute.

\(^{25}\) Since, rules that take a long time to promulgate may make it more likely that a regulator departs, we have also estimated models that control for the cumulative time that a rule has been in process (4.16; SD 4.69; min 1, max 26). Promulgation time ranges from a minimum of 1 to a maximum of 26. We exclude rule duration from the main specification since it correlates at 0.80 with the duration of a person on a rule but note that its inclusion does not substantively change the results.
not contribute to the estimated likelihood function.\textsuperscript{26} We also estimate a form of competing risks model to account for the fact that whether or not a case is censored may be influenced by the same factors that determine turnover. We estimate a multinomial probit model with three possible states (0 -- work on rule continues with same agency contact; 1 -- work on rule ends; 2 - work on rule continues but without agency contact) that manually controls for duration dependence.\textsuperscript{27}

In addition, we note that several of the key independent variables vary only by year (e.g., party change, election year, presidential approval, private sector wage changes) and are correlated with one another. The leverage from these variables often comes from a few changes over 18 years (e.g., 2 party changes). The results we present below appear reasonable on their face and are theoretically consistent but appropriate caution should be taken in the interpretation of results.

\textsuperscript{26} We evaluated whether the hazards are proportional and could not reject the null of global proportionality in any of the models. We could reject the null of proportionality for the presidential approval variable. We re-estimated models accounting for the non-proportionality and the results are similar. Results are displayed in Appendix B Table 2.

\textsuperscript{27} We include controls for the length of time a person has been working on a rule and the length of time the rule has been in process. We have also estimated models using 1) indicators of these time variables or 2) the natural log of these time variables. The results are the same. We assume that errors are independent, standard normal, random variables. We have chosen not to estimate other forms of competing risks models such those described in Fine and Gray 1999, because they assume that subjects whose rules have been completed are still “at risk” for departure. When such models are estimated, however, they provide substantively similar conclusions to those presented here.
Results

In Table 1, we display the estimates of Cox proportional hazard models of career regulator departure from a major rulemaking before the rulemaking is complete. Overall, the results indicate that new presidents have significant influence on who occupies major rulemaking positions in government. Career executives are estimated to have higher probabilities of departure after a party change in the White House and during an election year if the incumbent president’s party is likely to lose. There is also evidence that regulators that give money to candidates from a different party than the president are more likely to leave their positions, particularly after a party change in the White House. Career executives are also more likely to depart when outside wages increase.

<table>
<thead>
<tr>
<th>Table 1. Estimates of Hazards of Regulatory Contact Departure from Major Rules, 1995-2013</th>
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<tr>
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<td>SE</td>
<td>B</td>
<td>SE</td>
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<tr>
<td><strong>Key Independent Variables</strong></td>
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<tr>
<td>Party Change in the White House (0,1)</td>
<td>0.34**</td>
<td>0.16</td>
<td>0.27*</td>
</tr>
<tr>
<td>Presidential Election Year (0,1)</td>
<td>1.47**</td>
<td>0.69</td>
<td>1.42**</td>
</tr>
<tr>
<td>Presidential Approval</td>
<td>-0.00</td>
<td>0.01</td>
<td>-0.00</td>
</tr>
<tr>
<td>Presidential Election Year*Presidential Approval</td>
<td>-0.03**</td>
<td>0.01</td>
<td>-0.03**</td>
</tr>
<tr>
<td>Regulator Diff Party from President (0,1)</td>
<td>0.28</td>
<td>0.25</td>
<td>-0.39</td>
</tr>
<tr>
<td>Regulator Diff Party from President*Party Change in the White House</td>
<td>1.20**</td>
<td>0.45</td>
<td></td>
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<td><strong>Controls</strong></td>
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<tr>
<td>Average Private Sector Wage Increase</td>
<td>0.14**</td>
<td>0.05</td>
<td>0.13**</td>
</tr>
<tr>
<td><strong>Rule Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Statutory Deadline (0,1)</td>
<td>0.05</td>
<td>0.12</td>
<td>0.04</td>
</tr>
<tr>
<td>Economically Significant Rule (0,1)</td>
<td>-0.35**</td>
<td>0.12</td>
<td>-0.34**</td>
</tr>
<tr>
<td>Unfunded Mandate Review Required (0,1)</td>
<td>-0.33**</td>
<td>0.16</td>
<td>-0.35**</td>
</tr>
<tr>
<td>Rule has more than 1 contact</td>
<td>0.24*</td>
<td>0.12</td>
<td>0.25**</td>
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<tr>
<td>Agency Fixed Effects?</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cluster SEs</td>
<td>Person</td>
<td>Person</td>
<td>Person</td>
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<tr>
<td>Number of Observations</td>
<td>4,707</td>
<td>4,707</td>
<td>4,707</td>
</tr>
<tr>
<td>Number of Rule-Person Pairs</td>
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<td>1,312</td>
<td>1,312</td>
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<tr>
<td>Number of Departures</td>
<td>368</td>
<td>368</td>
<td>368</td>
</tr>
<tr>
<td>X²</td>
<td>31.60**</td>
<td>40.81**</td>
<td>82.45**</td>
</tr>
</tbody>
</table>

Note: Dependent variable is the hazard of no longer being listed as the agency contact on a major rule in an agency regulatory plan. **significant at the 0.05 level, * significant at the 0.10 level in two-tailed tests.
Our first expectation is that new presidents encourage departure among career executives seen as too close to the last administration. The model estimates confirm this expectation. The coefficient estimates are all positive and at least marginally significant in two-tailed tests in all three of the models. In hazard models, positive coefficient estimates indicate higher hazards of leaving/being removed from a rule (i.e., shorter durations). Substantively, the hazards of a person leaving a rule before it is completed are estimated to be about 40% higher after a party change in the White House (Figure 1), depending upon the model. While the regulators we spoke with emphasized that regulators work across administrations, the evidence here suggests that new presidential administrations directly or indirectly generate higher rates of reshuffling among regulators. This is important evidence that new presidents may influence the composition of the career service and its policymakers. For example, when one regulator was asked about why someone might leave as point person prior to the rule being completed, “retirements; movement of staff within the agency (i.e., rotations, transfers to other offices, etc.); office reorganization or reassignment of duties; etc.” were listed as reasons. While some motivations for leaving lie with the regulator, the examples of office realignments are decisions from positions of authority other than the regulator. Reorganizations and reassignments can readily mask as shift in important responsibilities to a more trusted careerist.

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28 For example, when we queried one regulator whether “presidential transitions ever affect who is listed as the contact on a rule” he responded, “Not all. Rule leads are all non-political appointees, so they transition multiple administrations.” Email communication, Agency Contact, Environmental Protection Agency, June 17, 2014.
Regulatory officials also appear to anticipate turnover and make adjustments in advance. The hazard rates of departure are higher during a presidential election year. The coefficient estimates are positive and indicate that turnover in regulatory positions is significantly more likely during an election year (Figure 2). The effect of presidential election years on regulatory turnover, however, is moderated by the popularity of the incumbent party’s president. When the incumbent party’s president is popular, indicating that the incumbent party will be reelected, the effect of a presidential election is actually to decrease the chances of turnover. When the incumbent party’s president is unpopular, however, the effect of a presidential election on departure is even larger. This is seen most clearly in the Figure 2 where the estimated hazards of departure during an election year with a low approval incumbent (35%) are more than twice as high compared to those during an election year with a high approval incumbent (60%). Career
executives appear to be calculating what life under the next administration will be like when making decisions about their careers. These results suggest that presidents have latitude over the career decisions of regulators, both directly and, in some cases, indirectly. In some cases, new presidents do not have to do anything to engender turnover in regulatory positions but run well, and careerists, anticipating their administration, begin to step aside. This stepping aside gives new presidents the opportunity to promote careerists of their choice into key positions without their having to act.

Model estimates also suggest that regulators working under either Republican presidents or Democratic presidents are more likely to be shuffled if their policy views conflict with those of the president. Regulators that identified themselves as belonging to the opposite party of the president by their campaign contributions are significantly more likely to stop working on a major rule. Regulators from a different party than the president are estimated to have 32% higher
hazards of leaving a major rulemaking than regulators that did not make political contributions or
gave to the party of the sitting president. This “out party” effect is estimated to substantially
increase following a party change in the White House. So, for example, if a Democratic career
executive was working under a Democratic president and that president is replaced by a
Republican, the hazards of leaving a major rulemaking are 2.5 times higher. The fact that the
ideological views of the regulator influence departure suggests either that administrations target
the partisans or that partisans leave because of the direction of the new administration. In either
case, their departure gives new presidents the ability to shape regulatory policy through the
selection of new personnel.

Our estimates reveal several other factors that are associated with regulatory shuffling.
First, changes in outside wages are correlated with turnover. A one standard deviation increase in
outside wages is estimated to increase the hazards by 20-30%. Second, regulators working on
economically significant rules or rules involving many levels of government are estimated to stay longer. Finally, we could not reject the null hypothesis that the presence of a statutory deadline did not influence the hazards of departure. Finally, regulators working on rules that have more than one contact or have been in process for a longer period of time have higher risks of departure.

In sum, the hazard models indicate that regulators are more likely to depart after a party change or during an election year when they anticipate a party change. Those most affected seem to be those regulators from the opposite party. Not surprisingly, regulators are more likely to depart when private sector wages are increasing.

**Competing Risks**

One issue that complicates model estimation is the fact that the probability a case is censored (i.e., work on the rule is complete) is influenced by the same factors that influence departure.\(^2^9\) Work on a rule may speed up or slow down due to the same political or economic

\(^2^9\) We have also estimated a five (5) outcome competing risks model on a subset of the data for which we were able to obtain regulator departure data. This model includes the following unordered outcomes: (1) regulator stays and work on rule continues; (2) regulator leaves rule before it is complete but stays in government; (3) regulator leaves rule before it is complete and leaves government; (4) rule is completed and regulator stays in government; (5) rule is completed and regulator leaves government. We estimate a very basic model with the key independent variables and controls for duration dependence because there were only 8 cases where the regulator left the rule early and also left the government (3) and 62 cases where the rule was complete and the regulator left government (5). We could not estimate fully specified
factors that influence the career trajectory of regulators. In Table 2, we include estimates from a model that accounts for these competing risks. The first column includes estimates of the impact of the independent variables on the probability that the work on the rule is completed in the period of observation relative to the probability that work continues on the rule with the agency contact in place (the second column includes standard errors). The third column includes estimates for whether the agency contact stops working on the rule relative to continuing to work on the rule.

A number of interesting results emerge. First, a party change in the White House is estimated to increase the probability that work on a rule is completed and increase the probability that a regulator departs work on the rule. A party change is estimated to increase the probability work on a rule is complete by 4 percentage points, from 17 percent in any given 6 month period to 21. A party change increases the probability a regulator departs by 2% from 8% to 10%. Of course, this is an increase of 2% over the entirety of a president’s first term. So, it is 10% in the first 6 months, 10% in the second 6 months, etc. instead of 8% in the first 6 months, 8% in the

multinomial probit models because there are too few cases in many cells. The results indicate that party change in the White House and presidential elections increase the chances of departure from government before rule completion. Estimates suggest that party change in the White House decreases the chances of rule completion although the estimates are imprecise. Presidential elections, however, increase the chance that rules get completed and regulators leave rules and government. Private sector wages are correlated with persons leaving government after rules are completed and rule completion itself but not with departure from government before a rule is complete. Estimates suggest that being from a different party from the president increased the chances of departure from government both before and after rules were completed although the estimates were not precise (p<0.16). We include these estimates in Appendix B Table 3.
second 6 months. These results are consistent with the results from the Cox models that suggest that party change increases the likelihood of reshuffling among regulators.

Table 2. ML Estimates of Major Rule Completion or Regulator Departure, 1995-2013

<table>
<thead>
<tr>
<th>Key Independent Variables</th>
<th>Rule Completion</th>
<th></th>
<th></th>
<th></th>
<th>Regulator Departure</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Party Change in the White House (0,1)</td>
<td>0.26**</td>
<td>0.09</td>
<td>0.26**</td>
<td>0.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presidential Election Year (0,1)</td>
<td>-0.88**</td>
<td>0.36</td>
<td>0.79*</td>
<td>0.44</td>
<td></td>
<td></td>
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<tr>
<td>Presidential Approval</td>
<td>-0.01**</td>
<td>0.00</td>
<td>-0.01</td>
<td>0.00</td>
<td></td>
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</tr>
<tr>
<td>Presidential Election Year*Presidential Approval</td>
<td>0.02**</td>
<td>0.01</td>
<td>-0.01</td>
<td>0.01</td>
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<td></td>
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<td>Regulator from Different Party than President (0,1)</td>
<td>0.14</td>
<td>0.19</td>
<td>-0.23</td>
<td>0.23</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Regulator Diff Party from President*Party Change in the White House</td>
<td>-0.33</td>
<td>0.29</td>
<td>0.82**</td>
<td>0.34</td>
<td></td>
<td></td>
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<tr>
<td>Controls</td>
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<td></td>
</tr>
<tr>
<td>Average Private Sector Wage Increase</td>
<td>-0.08**</td>
<td>0.02</td>
<td>0.07**</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rule Characteristics</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory Deadline (0,1)</td>
<td>0.16**</td>
<td>0.07</td>
<td>0.08</td>
<td>0.08</td>
<td></td>
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<tr>
<td>Economically Significant Rule (0,1)</td>
<td>0.62**</td>
<td>0.06</td>
<td>-0.09</td>
<td>0.08</td>
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<tr>
<td>Unfunded Mandate Review Required (0,1)</td>
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<td></td>
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<tr>
<td>Rule has more than 1 contact</td>
<td>-0.38**</td>
<td>0.08</td>
<td>0.09</td>
<td>0.09</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration dependence--Time regulator listed as contact on rule</td>
<td>0.00</td>
<td>0.01</td>
<td>-0.02</td>
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<tr>
<td>Constant</td>
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<td>0.26</td>
<td>-1.38**</td>
<td>0.29</td>
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<tr>
<td>Number of Observations</td>
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<td></td>
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</tr>
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<td>Number of Regulators</td>
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<td>$X^2$</td>
<td>371.87**</td>
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</table>

Note: Multinomial probit estimated on 3 possible outcomes, (0) rule continues with person listed as contact; (1) work on rule terminates; (2) agency contact departs work on rule before work is complete. All coefficient estimates should be interpreted relative to base category of work on rule continuing with the same agency contact.

**significant at the 0.05 level, * significant at the 0.10 level in two-tailed tests. Robust standard errors clustered on rule reported.

Election year dynamics influence both the probability that a rule is completed and whether a regulator departs but both effects are conditional on approval. The main effect of a presidential election year is to slow completion on rules but speed up regulator departures. As approval increases during an election year, however, the chances a rule is completed go up and
the chances a regulator departs go down. During an election year, an agency lead is estimated to be more likely to depart when the incumbent’s approval is low. However, if the incumbent president is doing well, presidential election years are estimated to decrease the probability the regulator departs. Regulators that have revealed themselves to be from a different party than the president are also more likely to depart the rule after a party change but such regulators appear to have no influence the pace of rule completion. After a party change, regulators from the out party are estimated to be 12 percentage points more likely to depart work on a rule in a given 6-month period. So, while a regulator of the same party of the president is estimated to have an 8% chance of leaving in any 6 month period, this probability increases to 10% after a party change and to 20% if the regulator is from the opposite party of the president after a party change.

There were a number of other factors that influence the progress of rules and the careers of regulators. First, increases in private sector wages increase the probability regulators departed and slowed the pace of rulemaking. A one standard deviation increase in private sector wages is estimated to increase the chances of departure in any 6-month period by 1.9 percentage points, or from 8% to 10% but decrease the chances of rule completion by 3 percentage points. Second, rule characteristics play a key role in determining the pace of rule completion but appear to have little effect on whether a regulator stays or goes. Statutory deadlines are estimated to increase the chances a rule was completed in a given 6-month period by 3 percentage points and estimates indicate that economically significant rules and rules subject to unfunded mandate evaluation are completed more quickly than other major rules. Rules with multiple contacts, however, are estimated to have lower probabilities of completion in any given 6-month period, suggesting that joint rulemaking or more rule complexity may be associated with longer durations.
In total, the analysis of agency regulatory officials suggests that both political and economic factors influence whether or not they continue to work on major rulemakings. Contextual factors about the rule, regulator, and agency affect turnover as well.

**Discussion and Conclusion**

In the heat of the 2012 presidential election, Republican nominee Mitt Romney pledged to repeal the Affordable Care Act, the signature legislative achievement of the Obama presidency. Of course, the president has no constitutional authority to repeal legislation. Most informed observers noted that a Romney victory would probably act immediately to try and get control over the rulemaking process inside the Department of Health and Human Services. He would delay implementation of the act and interpret it in ways that undercut the intention of the law’s authors. An analogous struggle between presidential candidates over the legislative achievements of the incumbent administration occurs during every election season. Regulators rush to complete rules before new presidents assume office and newly inaugurated presidents rush to put a hold on many of the proposed regulations from the previous administration (O’Connell 2008, 2011).

To effectively control the machinery of public policy, presidents need to control the rulemaking process inside agencies. For presidents, one of the most direct means of securing control is embedding personnel in key positions who are sympathetic to their agenda. This happens at the top levels when presidents name new appointees to agency positions. This also happens at lower levels when appointees make decisions about whom they can work with and who might be better suited for another position. Presidents can reassign career executives from key positions in order to marginalize them. In addition, career executives may exit their position in anticipation of a new administration that may be hostile to them. Thus presidential control
over key rulemaking positions is the product of both the decisions of presidents to marginalize career executives and the decisions of career executives.

Evidence presented in the paper suggests that although new presidents do not overwhelmingly remove senior career executives from positions of authority, they still exert considerable authority over the individuals in key positions. The scope of control only increases as their time in office progresses. For example, in the year before President Obama assumed office 10% of the career executives serving as the primary contact on a major rule departed before the rule was complete and another 7% departed during the first year of his administration. Throughout the tenure of a president, presidents or their appointees are able to promote career executives of their choice to a substantial number of the positions on rulemaking teams as bureaucrats either exit their positions or are sufficiently marginalized within the agency.

Not all of this shuffling and reshuffling has a political component but some of it does. Where it happens, presidents are given new opportunities for control of public policy making. Without these opportunities, presidential efforts to spur new policymaking or reconfigure ongoing efforts would be more difficult. New presidents inherit an active policymaking apparatus that will continue working and churning out policy decisions whether presidents give agencies direction or not. Personnel, particularly regulatory personnel and other “choke point” type personnel,” are the primary means why which presidents stimulate or arrest government policymaking.
References


Appendix A: Data Collection

Data Collection on Regulators

The *Unified Agenda of Regulatory and Deregulatory Actions* served as the source for our data on major rules, their characteristics, and the identity of lead regulator responsible for the rule. The Unified Agenda is a compilation of information regarding rules being developed by 63 federal agencies. It is published twice each year and includes information regarding the rules under development.

Data on all major rules were obtained in two stages from the reginfo.gov website hosted by the Office of Information and Regulatory Affairs within the Office of Management and Budget. First, we used the website’s search function to compile the list of major rules and then searched for information about all of the rules inside the agency regulatory plans. To identify the set of major rules we chose the search option of the Unified Agenda (http://www.reginfo.gov/public/do/eAgendaSimpleSearch) and then the advanced search option (http://www.reginfo.gov/public/do/eAgendaAdvancedSearch). Among the three options on the advanced search page(s) we selected the options of searching all available publications and all agencies. When given the option of selecting additional fields, we chose to select all major rules and all completed actions. This returned 982 major rules between 1995 and November 2013.

For each major rule a freelance web scraper extracted information about the history of the rule and put this information in a Microsoft Excel spreadsheet. The data was scraped by pasting the Regulatory Information Number (RIN) into the original search page (http://www.reginfo.gov/public/do/eAgendaSimpleSearch). Such a search often returns multiple records, one for each time the rule was included in an agency regulatory plan. Agencies publish regulatory plans twice per year. The web scraper clicked on the option of View all RIN Data for
each of the 982 rules and scraped the data from the resulting page. This includes information about the content and characteristics of the rule as well as the agency contact or lead regulator on the rule.

The agency contact entry for a rulemaking is “the name and phone number of at least one person in the agency who is knowledgeable about the rulemaking action. The agency may also provide the title, address, fax number, e-mail address, and TDD for each agency contact.” (U.S. General Services Administration, Regulatory Information Service Center, “Introduction to the Unified Agenda of Federal Regulatory and Deregulatory Actions,” http://www.reginfo.gov/public/jsp/eAgenda/StaticContent/201310/Preamble_8888.html, accessed January 15, 2014).

The following addresses several facets and potential challenges to our coding of agency contacts. When conducting analysis, we lose a few of the 994 persons and 982 rules because we exclude cases where no person was listed as a contact on a rule and cases where persons are listed as a contact on a rule, depart, and are later listed as a contact on that rule once again, which explains the difference between the number of rules (and contacts) in the regulatory plans and the number we analyze. We do so because these patterns may reflect administrative idiosyncrasies rather than meaningful departures. We also exclude observations where the agency contact is a political appointee (7 appointees in the data listed as a contact on 6 rules), because the paper focuses on turnover among career service and SES personnel.

One potential alternative cause of turnover that could systematically bias results is if the initial agency contact listed is a person in a policy office and the rule is only transferred over to the office handling its development once the proposed rule has been promulgated. To address this, we examined whether agency contacts were listed in the agency’s general policy office and not the specific technical office using the Federal Yellow Book. We also checked whether any
names in the general policy office matched names in our data. There were no matches so there is no indication that turnover represents this shift from general policy office to specific technical office.

Another complication with the agency contact data is that some rules have multiple contacts. First, we ascertained that contacts were not simply listed alphabetically. After eliminating that first consideration, we then reached out to a few agency contacts in 2013 to inquire about contact order on rules in order to see if order implied something about the collection of regulators listed on the rule. Of those that replied, all stated that the order of the contacts did not provide any information. The only prerequisite to be placed on a rule and listed as an agency contact was expertise pertinent to the rule. For rules with multiple contacts, we took the lead contact listed on the rule as the primary contact.

As a check on our interpretation of the data, we submitted a short questionnaire to 42 agency contacts. We randomly selected from a pool of individuals who served as the agency contact on a rule within the last five years. We randomly selected two individuals from each executive department and one from each independent agency or commission who served as the agency contact on a rule that appeared in the Unified Agenda. For executive departments, we selected two individuals from separate bureaus within the department. We did not contact agencies that promulgated less than five rules in the data or if the agency had not promulgated a rule in the last five years. We chose two individuals from each executive department and one from each independent agency or commission. We did not contact any individuals from agencies that promulgated less than five major rules over the period or if the agency had not promulgated a rule in the last five years. In total, we emailed 39 agency contacts on October 3-6, 2014. We also queried an additional 3 agency contacts in the EPA on June 16, 2014. Of those
selected, we were unable to obtain valid email addresses for 7 of the contacts. We received responses from 19 agency contacts.

Agency contacts were asked the following questions.

1) How does your agency select who will be listed as the contact on a major rule in the regulatory plan?

2) Sometimes the person listed as the agency contact on a rule changes prior to the rule’s completion. Does this usually indicate that this person has stopped working on the rule? If so, could you explain why agency contact would change? Does a change in agency contact indicate that a person left the agency, was moved off the rule to work on another task, or was moved off the rule to work on a different rule?

3) Some rules multiple contacts listed. Why do some rules have multiple contacts and others only one? When there are multiple contacts listed, the contact list is not alphabetical. Is the order meaningful?

The responses from agency contacts are available upon request.

Government Departures

To determine whether an individual left government service following the last period that they are observed in the data, we consulted the Federal Yellow Book (FYB). The FYB is a yearly publication of federal decision-makers and their contact information by the Leadership Directories, Inc. First, we searched each version from the FYB from 1995-2013 to see if the contact person on the rule could be identified with the exception of 2006 where we could not obtain a copy of the FYB. Twenty five percent (188 of 747) of lead agency contacts on rules are also listed in the FYB. For those in the FYB, we identified the last year that someone was listed
as an agency contact on a rule and searched the FYB to determine whether they were still listed in the FYB the following year. If the agency contact could be located the following year, they remained in government service. The absence of their name indicates that they exited government service. One potential complication would be if individuals are listed in the FYB some years but not others while remaining in government service throughout that time as the result of the data collection methods of the FYB. To guard against this possibility, we examined whether individuals in the data over longer durations as agency contacts were consistently listed in the FYB, but found no evidence of agency contacts coming and going from the FYB (i.e., once they are listed they continue to be listed).

**Variables**

**Out Party Status**

To get information on partisanship, we searched FEC records for all 994 regulators and coded whether the regulator gave and whether they gave to Republicans or Democrats. We obtained the data by using the FEC’s online search tool at [http://fec.gov/finance/disclosure/norindsea.shtml](http://fec.gov/finance/disclosure/norindsea.shtml) (last accessed June 22, 2015). The tool allows for individual names to be entered into a search engine. Personal information about the donor was recorded along with donation information. Donations were only recorded if the person making the contribution could reasonably be assumed to be the regulator based upon an agency and location match. Individual contacts were coded with a 1 if they donated to the out party and 0 if they either failed to donate any funds or donated to the party of the current administration.

**Presidential Approval**
To capture presidential approval, we utilize the traditional approval question--“Do you approve or disapprove of the way that [President name] is handling his job as president?” We downloaded the September polls asking this question from the Roper Center Public Opinion Archives and report the first poll in September. It should be noted that the polling numbers come from different polling organizations using different samples (voters, registered voters, likely voters). Source: http://www.ropercenter.uconn.edu/CFIDE/roper/presidential/webroot/presidential_rating_search.cfm, accessed November 1, 2013.

SSI Wage Index

This index is calculated by the Social Security Administration Board of Trustees and shows the increase in average pay, compounded annually. It is computed by the Social Security Administration based upon data provided by employers to the Internal Revenue Service regarding wages. This data comes directly from the SSA (http://www.ssa.gov/oact/cola/awiseries.html, accessed June 22, 2015).

Economically Significant Rules

An economically significant rule is an action that will have an “annual effect on the economy of $100 million or more or will adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities.” Rules are coded with a 1 if they are an economically significant rule or 0 if they are categorized as Informational/Administrative/Other, Other Significant, Routine and Frequent, or Substantive, Nonsignificant. In some cases the categorization of the rule changes as it progresses. See Regulatory Information Service Center,
Statutory Deadlines

The Unified Agenda provides information on whether the rule is subject to a statutory deadline. Rules are coded as 1 if there is a deadline and 0 otherwise.

Presidential Agenda

To identify what agencies are on the presidential policy agenda, we searched State of the Union addresses for explicit mentions of executive agencies. State of the Union addresses contain many statements that seem to have some relationship with policy, but really would be better characterized as a valence statement. For example, claims of balancing the budget without changing Medicare, Medicaid, Social Security and the Defense budget have a policy flavor but are hardly a clear policy message to the agency. With that in mind, only the proposals that had a clear policy prescription, discussed a specific allocation of funds to a program or agency, or altered the status quo of how the agency operated were considered.
Appendix B: Alternative Model Specifications

Table 1. Estimates of Hazard of Departure Including All Contacts

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>B</th>
<th>SE</th>
<th>B</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Party Change in the White House (0,1)</td>
<td>0.22</td>
<td>0.14</td>
<td>0.17</td>
<td>0.14</td>
<td>0.25*</td>
<td>0.14</td>
</tr>
<tr>
<td>Presidential Election Year (0,1)</td>
<td>1.21*</td>
<td>0.63</td>
<td>1.17*</td>
<td>0.63</td>
<td>1.16*</td>
<td>0.67</td>
</tr>
<tr>
<td>Presidential Approval</td>
<td>-0.00</td>
<td>0.01</td>
<td>-0.00</td>
<td>0.01</td>
<td>-0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Presidential Election Year*Presidential Approval</td>
<td>-0.03**</td>
<td>0.01</td>
<td>-0.03**</td>
<td>0.01</td>
<td>-0.03**</td>
<td>0.01</td>
</tr>
<tr>
<td>Regulator Diff Party from President (0,1)</td>
<td>0.00</td>
<td>0.24</td>
<td>-0.36</td>
<td>0.33</td>
<td>0.05</td>
<td>0.24</td>
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<tr>
<td>Regulator Diff Party from President*Party Change in the White House</td>
<td>0.75</td>
<td>0.47</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Private Sector Wage Increase</td>
<td>0.12**</td>
<td>0.04</td>
<td>0.12**</td>
<td>0.04</td>
<td>0.13**</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>Rule Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory Deadline (0,1)</td>
<td>0.08</td>
<td>0.11</td>
<td>0.08</td>
<td>0.11</td>
<td>0.05</td>
<td>0.11</td>
</tr>
<tr>
<td>Economically Significant Rule (0,1)</td>
<td>-0.29**</td>
<td>0.10</td>
<td>-0.28**</td>
<td>0.10</td>
<td>-0.34**</td>
<td>0.11</td>
</tr>
<tr>
<td>Unfunded Mandate Review Required (0,1)</td>
<td>-0.30**</td>
<td>0.15</td>
<td>-0.30**</td>
<td>0.14</td>
<td>-0.27*</td>
<td>0.15</td>
</tr>
<tr>
<td>Rule has more than 1 contact</td>
<td>0.27**</td>
<td>0.12</td>
<td>0.27**</td>
<td>0.12</td>
<td>0.43**</td>
<td>0.14</td>
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<tr>
<td>Listed Second on Contact List (0,1)</td>
<td>0.50**</td>
<td>0.17</td>
<td>0.50**</td>
<td>0.17</td>
<td>0.61**</td>
<td>0.17</td>
</tr>
<tr>
<td>Listed Third on Contact List (0,1)</td>
<td>0.43</td>
<td>0.34</td>
<td>0.46</td>
<td>0.35</td>
<td>0.37</td>
<td>0.39</td>
</tr>
<tr>
<td><strong>Agency Fixed Effects?</strong></td>
<td>No</td>
<td></td>
<td>No</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Cluster SEs</td>
<td>Person</td>
<td></td>
<td>Person</td>
<td></td>
<td>Person</td>
<td></td>
</tr>
<tr>
<td>Number of Observations</td>
<td>5,176</td>
<td></td>
<td>5,176</td>
<td></td>
<td>5,176</td>
<td></td>
</tr>
<tr>
<td>Number of Rule-Person Pairs</td>
<td>1,465</td>
<td></td>
<td>1,465</td>
<td></td>
<td>1,465</td>
<td></td>
</tr>
<tr>
<td>Number of Departures</td>
<td>441</td>
<td></td>
<td>441</td>
<td></td>
<td>441</td>
<td></td>
</tr>
<tr>
<td>X²</td>
<td>49.84**</td>
<td></td>
<td>53.36**</td>
<td></td>
<td>106.58**</td>
<td></td>
</tr>
</tbody>
</table>

Note: Dependent variable is the hazard of no longer being listed as the agency contact on a major rule in an agency regulatory plan. **significant at the 0.05 level, * significant at the 0.10 level in two-tailed tests.

---

30 Estimates include observations on 2nd and 3rd contacts as well as lead contacts.
Table 2. Alternative Specifications: 1) Cox Proportional Hazard Models with Measures of Ideological Distance and Prominence on President’s Agenda; 2) Cox Models allowing Non-proportionality of Presidential Approval

**PL Estimates of Hazards of Regulatory Contact Departure from Major Rules, 1995-2013**

<table>
<thead>
<tr>
<th>Key Independent Variables</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party Change in the White House (0,1)</td>
<td>0.40** 0.16</td>
<td>0.30* 0.16</td>
</tr>
<tr>
<td>Presidential Election Year (0,1)</td>
<td>1.37** 0.70</td>
<td>1.77** 0.65</td>
</tr>
<tr>
<td>Presidential Approval</td>
<td>-0.01 0.01</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>Presidential Election Year*Presidential Approval</td>
<td>-0.03* 0.01</td>
<td>-0.04** 0.01</td>
</tr>
<tr>
<td>Regulator Diff Party from President (0,1)</td>
<td>0.25 0.26</td>
<td>-0.29 0.24</td>
</tr>
<tr>
<td>Agency Policy Mentioned in SOU (0,1)</td>
<td>-0.17 0.12</td>
<td></td>
</tr>
<tr>
<td>Agency Distance from President</td>
<td>-0.31** 0.10</td>
<td></td>
</tr>
<tr>
<td>Agency Distance from President*Party Change in the White House</td>
<td>0.22* 0.12</td>
<td></td>
</tr>
<tr>
<td>Agency Distance from President*Mentioned in SOU (0,1)</td>
<td>0.16 0.11</td>
<td></td>
</tr>
</tbody>
</table>

**Controls**

| Average Private Sector Wage Increase                                                      | 0.14** 0.05     | 0.13** 0.05     |
|------------------------------------------------------------------------------------------------|
| Rule Characteristics                                                                       |                 |                 |
| Statutory Deadline (0,1)                                                                   | 0.09 0.12       | 0.04 0.12       |
| Economically Significant Rule (0,1)                                                        | -0.34** 0.12    | -0.34** 0.12    |
| Unfunded Mandate Review Required (0,1)                                                      | -0.37** 0.17    | -0.34** 0.16    |
| Rule has more than 1 contact                                                               | 0.28** 0.12     | 0.24** 0.12     |

| Agency Fixed Effects?                                                                     | No              | No              |
| Cluster Cluster                                                                           | Person          | Person          |
| Number of Observations                                                                    | 4,618           | 4,707           |
| Number of Rule-Person Pairs                                                               | 1,284           | 1,312           |
| Number of Departures                                                                      | 361             | 368             |
| \(X^2\)                                                                                  | 43.78**         | 34.69**         |

Note: Dependent variable is the hazard of no longer being listed as the agency contact on a major rule in an agency regulatory plan. **significant at the 0.05 level, * significant at the 0.10 level in two-tailed tests.
Table 3. Five Outcome Competing Risk Multinomial Probit Model

<table>
<thead>
<tr>
<th>Key Independent Variables</th>
<th>Regulator Leaves Rule but Stays in Gov’t</th>
<th>Regulator Leaves and Stays in Gov’t</th>
<th>Rule Complete Regulator Stays in Gov’t</th>
<th>Rule Complete Regulator Leaves Gov’t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party Change in the White House (0,1)</td>
<td>0.19</td>
<td>5.62**</td>
<td>-3.10**</td>
<td>-2.53**</td>
</tr>
<tr>
<td>Presidential Election Year (0,1)</td>
<td>0.46*</td>
<td>2.14**</td>
<td>0.09</td>
<td>0.13</td>
</tr>
<tr>
<td>Presidential Approval</td>
<td>0.03</td>
<td>-0.26**</td>
<td>0.29**</td>
<td>0.24**</td>
</tr>
<tr>
<td>Regulator from Different Party than President (0,1)</td>
<td>0.33</td>
<td>0.88</td>
<td>-0.04</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Controls

<table>
<thead>
<tr>
<th></th>
<th>Regulator Leaves Rule but Stays in Gov’t</th>
<th>Regulator Leaves and Stays in Gov’t</th>
<th>Rule Complete Regulator Stays in Gov’t</th>
<th>Rule Complete Regulator Leaves Gov’t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Private Sector Wage Increase</td>
<td>0.15**</td>
<td>-0.23</td>
<td>0.35**</td>
<td>0.28**</td>
</tr>
<tr>
<td>Duration dependence--Time regulator listed as contact on rule</td>
<td>-0.06**</td>
<td>0.02</td>
<td>0.03</td>
<td>0.03*</td>
</tr>
<tr>
<td>Constant</td>
<td>-3.24*</td>
<td>3.87</td>
<td>-12.01**</td>
<td>-11.18</td>
</tr>
</tbody>
</table>

Number of Observations 1,398
Number of Rules 394
Number of Regulators 304

Note: Multinomial probit estimated on 5 possible outcomes, (1) regulator stays and work on rule continues; (2) regulator leaves rule before it is complete but stays in government; (3) regulator leaves rule before it is complete and leaves government; (4) rule is completed and regulator stays in government; (5) rule is completed and regulator leaves government. All coefficient estimates should be interpreted relative to base category of work on rule continuing with the same agency contact. **significant at the 0.05 level, * significant at the 0.10 level in two-tailed tests. Robust standard errors clustered on rule reported.