Agency Rulemaking in a Separation of Powers System

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Abstract: Rulemaking gives agencies significant power to change public policy, but agencies do not exercise this power in a vacuum. The separation of powers system practically guarantees that, at times, agencies will be pushed and pulled in different directions by Congress and the president. We argue that these forces critically affect the volume of rules produced by an agency. We develop an account of agency rulemaking in light of these factors and test our hypotheses on a dataset of agency rules from 1995 to 2007. Our results show that even after accounting for factors specific to each agency, agencies do, in fact, adjust the quantity of rules they produce in response to separation of powers oversight. Further analysis shows that the president’s influence is limited to those agencies that he has made a priority.

Key Words: separation of powers, rulemaking, bureaucracy, agency
The U.S. Constitution assigns significant policymaking authority to each branch of government. The lion’s share of attention in the document goes to Congress, especially with regard to the breadth of its power and the processes by which it can create new laws. The Constitution also clearly provides the president with the tools to influence and set policy, both through the legislative process and through alternative methods, such as executive orders.¹

Yet the Constitution barely mentions the most active policymakers at the national level. Here we refer, of course, to the bureaucracy. For example, in 1999, Congress and the president passed 170 laws, while the president issued 35 executive orders. At the same time, national-level agencies issued 1,636 final rules, and considered thousands more. These rules have the potential to dramatically shift the course of public policy. To take one example, in the spring of 2011 the Department of Education (ED) issued final rules that placed restrictions on the recruitment practices of for-profit colleges and universities. The intent of these rules was to curb predatory practices by these organizations, which were suspected of targeting vulnerable populations and misrepresenting the value of their product. The rules, which were controversial in that they were a first step toward government oversight of the rapidly growing $40 billion for-profit college industry, were promulgated over the industry’s protests and in the absence of a congressional mandate.

ED’s use of rulemaking to precipitate a major policy shift was not unusual. During the Obama administration, for example, the Environmental Protection Agency (EPA) employed rulemaking as a vehicle to tackle climate change in the absence of decisive action from Congress. Similarly, at the tail end of the George W. Bush administration in late 2008, the Department of Interior (DOI) issued a controversial rule – over the vehement objections of
environmental groups – that relaxed restrictions on the disposal of rock and dirt debris from mountaintop coal mining.

As these examples illustrate, rulemaking is a major (and often controversial) avenue for policy change in the American system. Yet in spite of the prominence, effect, and durability of rules, little is known about the conditions under which agencies pursue policy change using rules or are constrained from doing so. In this paper we investigate these conditions and in so doing make several contributions. To begin, we add our analysis to the small but significant set of empirical studies of rulemaking (e.g., Boushey and McGrath 2015, 2016; MacDonald and McGrath 2016; O’Connell 2008, 2011; Potter 2017; Yackee and Yackee 2009). More specifically, we analyze the volume of rulemaking activity, with the goal of explaining the variation in volume across agencies and across time.

In addition, we contend that in order to understand when and why agencies engage in rulemaking, scholars need to consider not only the nature of the agency, but also the political forces—in particular those emanating from elected officials in political institutions that provide oversight—that can influence the frequency with which an agency engages in rulemaking. A focus on rulemaking thus allows us to contribute to the much larger literatures on policymaking in a separation of powers system and political influence over agencies. Rulemaking, we argue, uniquely allows us to investigate how agencies respond to separation of powers oversight generally – that is, by focusing not just on one agency (e.g., Olson 1996; Shipan 2004) or a small set of agencies (e.g., Wood and Waterman 1993), but looking instead at similar actions across a broad range of agencies (e.g., MacDonald 2010). In our investigation, we consider how the president and Congress affect agency policymaking, and do so while accounting for differences across agencies. The growth of the regulatory state is a frequent and heated subject of debate.
among politicians, and unraveling how political forces affect this type of policymaking has important public policy implications.

The Politics of Rulemaking

Until fairly recently, the study of rulemaking had, by and large, been the province of legal scholars who often focused on the normative implications of the notice-and-comment rulemaking process. Such studies, however, provided few insights about why some agencies engage in rulemaking with greater frequency than others, or why an agency finalizes many rules at some times but few at others.

Recently, however, notable exceptions to this pattern have emerged. Newer work has explored the role of interest groups in affecting regulatory outcomes (Balla 1998; Haeder and Yackee 2015) and the influence of the political environment – and in particular, the institutions of our separations of powers system – on agency rulemaking. O’Connell (2008), for example, analyzes the effect of political transitions in Congress and the White House on the volume of agency regulatory activity, while Boushey and McGrath (2015) and Yackee and Yackee (2009) explore the effect of divided government on the promulgation of agency rules.

By identifying noteworthy empirical patterns in rulemaking cycles, these studies contribute to our understanding of rulemaking as a political phenomenon. At the same time, they leave several important questions unanswered. Do other political institutions influence the incidence of rulemaking? If the president favors some agencies over others, do those favored agencies engage in more rulemaking? Do agencies fear being overturned by Congress and, if so, does this affect their level of policy activity? Although existing empirical analyses highlight
important patterns, in order to fully understand the implications for agency policymaking, it is necessary to have a firm understanding of when and why agencies engage in rulemaking.

**Theory and Hypotheses**

In order to understand why agencies either increase or decrease their production of rules, we need to begin by asking why agencies issue rules in the first place. After all, although at times statutes require agencies to engage in rulemaking, at other times the decision to utilize the rulemaking process is a conscious choice by the bureaucrats who work at agencies. In addition to rulemaking, there are a range of other tools that bureaucrats can employ to affect policy, including individual case adjudication, the issuance of guidance documents, direct interaction with citizens and groups, and adjustments to enforcement and implementation approaches. This means that the decision to pursue rulemaking must have some appeal to agencies. In other words, rulemaking can provide potential *benefits* to agencies and, more specifically, the bureaucrats that work within them.²

These potential benefits come in multiple forms. Perhaps most prominently, bureaucrats of course have policy preferences (e.g., Knott and Miller 1987), and the rulemaking process provides these bureaucrats with an avenue to realize these preferences. Some rules are legislative, or substantive, in nature, in which case the agency creates new policy; other rules are interpretive, where Congress has issued general guidelines and the agency explains what the law means and how it will be carried out (Kerwin and Furlong 2011). In the former case, the agency’s ability to create new policies – and the ability of bureaucrats to act on their policy preferences – is clear and direct. But even in the latter case, agency actions can have a dramatic effect on policy. During the Obama administration, for example, the EPA issued a new rule,
known as the “Waters of the United States” (WOTUS) rule, that clarified which streams and wetlands fell under federal clean water protections. In this case, the agency did not create a new law; rather, it interpreted an existing law from 1972, but in a way that clearly moved policy in a liberal direction.³

The ability to pursue policy preferences – and to lock in policy gains through a relatively durable policy instrument – suggests that bureaucrats can derive policy benefits from rulemaking. Another type of benefit comes from the possibility for individual advancement either within the organization or outside of it. As Downs (1964) observed long ago, although some bureaucrats are motivated strictly by policy concerns, others – whom he labeled “climbers” – are motivated by the possibility of career advancement (see also Dewatripont, Jewitt, and Tirole 1999a, 1999b).⁴ Sometimes this advancement occurs within an agency. Successful contributions to the creation and finalization of rules can provide bureaucrats with a strong reputation within an agency. For instance, the successful promulgation of a proposed or final rule is something that both an agency leader and a program manager can list as an “accomplishment” in their annual evaluation reports. Such concrete actions can increase the likelihood of internal promotion. However, bureaucrats also can achieve career advancement externally through the revolving door. Professionalism provides one such avenue, with bureaucrats using their management of (and participation in) the rulemaking process as a means to burnish professional credentials and standing. In other words, rulemaking can help bureaucrats to demonstrate field-specific prowess; this kind of commodity can then be leveraged for career gains at other agencies or in private sector firms that specialize in the bureaucrat’s field (see, e.g., Adolph 2013).

Although not all bureaucrats strictly pursue career goals (Teodoro 2013), rulemaking may even benefit those who are less ambitious. Another of Downs’s bureaucratic types –
“conservers” – may profit from rulemaking due to the stability and regularization it provides. That is, rulemaking is associated with organizational momentum, suggesting an agency that is healthy and able to function – key attributes to those who value security above all else.

Rulemaking thus offers a set of potential benefits to bureaucrats, giving them an incentive to engage in this activity. At the same time, however, bureaucrats must be wary of the potential costs of rulemaking. And while the benefits outlined above give them an incentive to produce rules, the potential costs may give them pause.

Some costs are internal. Foremost among these are the opportunity costs of engaging in rulemaking. Setting aside (for the moment) the potential reactions of external political actors, agencies will find rulemaking to be a burdensome process because engaging in rulemaking—developing rules, responding to comments, and so on—means foregoing the opportunity to engage in the other sorts of activities, identified earlier, that agencies either want or are expected to carry out. In addition, some agencies might not be as inclined as others to develop rules, due to structural or ideological factors. For example, because independent agencies are more likely than executive branch agencies to be created to balance opposing interests, they confront a regulatory process that is often long and controversial—in other words, a process with higher costs. These higher costs, combined with a natural lack of political support, predispose them to prefer adjudication to rulemaking (Meier 2000). In such cases, the rulemaking process is both less beneficial and more costly than it is for other agencies.

Although many costs are internal, others are external (Mashaw 1994). After all, rulemaking is situated within agencies; but agencies are situated within the broader separation of powers framework. And these externally imposed costs are arguably even more important. Agencies that propose rules that run counter to the wishes of elected politicians can quickly find
themselves the target of unwanted scrutiny and pressure. Such pressure can cause agencies to pursue policies different from ones they otherwise might prefer, resulting in a loss of policy utility. It could damage the careers of the bureaucrats who are involved in the process, diminishing their chances at promotions within the government or the possibility of attractive jobs outside government. It could also derail the rulemaking process entirely, with similar negative repercussions for the bureaucrats associated with what would be seen as a failed project. Finally, other political actors can overturn a new rule, either by striking it down or by enacting a new law that results in a less than ideal (from the bureaucrat’s perspective) policy outcome. And once again, the bureaucrats involved would suffer policy and career consequences. More generally, agencies that are subjected to close scrutiny, political pressure, and the prospect of having their actions overturned can suffer reputational losses, which in turn affect the overall trajectory of the agency and the career prospects of individual bureaucrats (Carpenter 2001).

We argue that bureaucrats continually evaluate the relative costs and benefits of producing rules, and that this calculation affects the volume of rules that an agency produces. To explore external costs in more detail, we turn now to a discussion of the roles that the president and Congress can play in influencing agencies’ views towards rulemaking. Before doing so, however, it should be noted that not only are these other institutions sources of potential costs; they are also sources of potential benefits.

*Presidents and Rulemaking*

As the Chief Executive, the president occupies a privileged position with respect to agencies. For executive branch agencies, the chain of command leads directly to him, giving these agencies a strong incentive to take actions that meet with the president’s
approval.  With respect to rulemaking, presidents have centralized review power over executive branch agencies, most notably through the Office of Information and Regulatory Affairs (OIRA), which reviews and approves executive branch rules and can, with some effort, coerce agencies into taking action (Heinzerling 2014; Sunstein 2012). More generally, presidents have a variety of tools that they can use to punish wayward agencies, including diverting funds from pet programs, firing key agency leaders, packing the agency with friendly appointees, or commanding expertise within agencies (LaRocca 2006). Many of these tools of influence also extend to independent agencies. For example, for some independent agencies, presidents retain the ability to limit an agency’s budget, rewarding those agencies they like and constraining those they do not. Presidents also have the ability to nominate the heads of these agencies, and to create a partisan balance of commissioners that favors their point of view (Devins and Lewis, 2008).

From the vantage point of agencies, then, these powers mean that presidents are a force to be reckoned with, as they can affect an agency’s rulemaking benefit-cost calculus. In particular, when the president favors an agency, bureaucrats will see that rulemaking is worth the time and effort that the process entails. To begin with, the president can state his unequivocal support for the agency’s approach, which can help to insulate it from criticisms. For example, groups that otherwise might attempt to slow down or even derail an agency’s rule might be less likely to do so if they know that the agency has the weight of the White House behind it. In addition, bureaucrats at a favored agency who successfully propose and finalize rules will see their career prospects improved – civil servants may see promotions, and political appointees may be elevated to higher positions. Finally, bureaucrats can rest assured that the president will not agree
to any laws that, in reaction to the rulemaking process, undercut the agency by limiting the agency’s jurisdiction or overturning its rule.

Just as presidents can increase the benefits of engaging in rulemaking for agencies that they favor, they can raise the costs of rulemaking to agencies that they view with disfavor. One primary way this occurs is through OIRA review. OIRA has the power to review agency rules and to require agencies to change, or even abandon, those rules; this power also might have a deterrent effect on rule production, as agencies might either revise or drop their rules in anticipation of running into difficulties with OIRA. Furthermore, the converse also holds true: when the president views agency rulemaking favorably, OIRA review can actually facilitate the issuance of rules (Potter 2017), meaning the centralization of review can benefit agencies (Sunstein 2012). Overall, then, the centralization of regulatory review in OIRA raises the costs of rulemaking to any agencies that the president views with disfavor.

We identify two categories of agencies that presidents will view favorably. First, different presidents come into office with different policy priorities. If an agency’s jurisdiction matches with those of the president’s priorities, then that agency will find the environment a beneficial one in which to carry out rulemaking. A president who comes into office emphasizing the importance of, say, environmental regulation will produce an environment in which the EPA sees benefits to creating new rules. The agency knows that if it does so, it will receive support from the president, that bureaucrats involved in writing the rule will see the possibility of career advancement within the agency or the executive branch more broadly, and that OIRA will stand ready to help the agency create a workable and well-received rule. In other words, the agency will benefit from being one
of the president’s priorities. Conversely, if the agency does not work in an area that the
president prioritizes, it might suffer costs in the form of less support, less protection, and
fewer rewards for doing its job.

Second, agencies are more likely to see the benefits of rulemaking when they
share the president’s ideology. When presidents come into office, they can enlist agencies
to act on their behalf, especially agencies with which they share a general ideological
predisposition. As with shared priorities, agencies that share the president’s ideology see
that they are likely to benefit from engaging in rulemaking, while those that do not share
the president’s ideology are more likely to anticipate increased costs. Thus, we expect
agencies that share the president’s preferences to be more active and those with different
ideological leanings to be less active. We summarize this view in the following two
hypotheses:

**H1: Presidential Priority.** Agencies are more likely to engage in rulemaking when the
president places priority on the policy areas they address.

**H2: Aligned President.** Agencies are more likely to engage in rulemaking when they are
in ideological agreement with the president.

There is an additional way in which presidents can influence an agency’s production of
rules: he can coax them into action on short notice. In particular, there are two conditions under
which a president might push agencies to quickly increase their production of rules (O’Connell
2008). First, an outgoing Democratic president who is about to be succeeded by a Republican
president, or vice versa, will have an incentive to implement “midnight rules” in an attempt to
lock in certain policies before leaving office. Second, if an election produces a transition from
unified to divided government, the outgoing president will have a similar incentive. In both
cases, the president can encourage agencies to create new rules while they can, thereby increasing the benefits to agencies. Also in both cases bureaucrats at these agencies will see one final opportunity to get their policy preferences enacted. This combination of presidential support and a last chance to influence policy provides clear benefits to bureaucrats and agencies, giving them an incentive to engage in more rulemaking. We capture these two end-of-term effects in the following hypothesis:

\textit{H3: Midnight and Transition Rules.} Rulemaking will increase after a presidential election if the current president will be succeeded by a new president from the other party or if government will switch from unified to divided control.

\textbf{Congressional influence on rulemaking}

Just as the president can raise either the costs or benefits that will accrue to an agency as a result of rulemaking, so too can Congress. Indeed, as two close observers of the rulemaking process have noted, “when delegating the power to interpret and prescribe law, Congress does it in the secure knowledge that it retains sufficient power and opportunity to redirect rulemakings that go astray” (Kerwin and Furlong 2011, 30). Congress can thus draw on its powers to increase or decrease the likelihood of agency rulemaking by making such action either more beneficial or more costly to an agency.

Broadly speaking, Congress’s abilities to increase the costs of rulemaking for agencies come in two forms: statutory powers and non-statutory powers. Within the category of statutory powers, Congress has several approaches it can take. First, it can simply pass a new law that overturns a rule by creating a new policy. Second, a slightly easier variant of this first approach is that Congress can utilize the Congressional Review Act, which allows it to overturn rules in a way that avoids being stymied by a filibuster. Third, Congress can pass laws that do not directly
attack a specific rule, but that affect the ability of an agency to engage in rulemaking in the future. For example, Congress can remove certain policy areas from an agency’s jurisdiction or can place limits on the agency’s rulemaking authority. Finally, members of Congress can pass appropriations riders, which are attachments to appropriations bills that can be used to prevent funds from being directed toward the proposal or implementation of specific rules (MacDonald 2010).8

These statutory actions have the potential of increasing the costs of engaging in rulemaking. They can increase policy costs by putting a new policy in place or by simply striking down the policy and moving policy back to whatever reversion point exists. In either case, the agency, after expending much effort, ends up with a less-preferred policy. Or they can increase policy costs by preventing agencies from creating new policies via rulemaking in the future. In addition, there are the opportunity costs of having worked on a rule that is either changed or eliminated, or that leads to other adverse consequences. Finally, agencies—and the bureaucrats within them who worked on the rules—suffer reputational costs if the policies they produced are overturned, or if those policies redound to the future detriment of the agency.

Of course, many of these actions are rare. Still, overturns do occur (e.g., Kaiser 1979). In the 114th Congress, for example, the seemingly dormant Congressional Review Act morphed into the tactical tool that its supporters originally envisioned. Furthermore, Congress regularly passes laws that affect the jurisdiction and powers of agencies. Appropriations riders also have been used at surprisingly high rates (MacDonald 2010). Although the odds that some of these statutory approaches will impose costs may be low, the odds that others will do so are not; and when taken in combination, the potential costs are high enough that agencies will pay attention and try to avoid antagonizing Congress.
Non-statutory approaches represent a second way that Congress can impose costs on agencies. Even if Congress does not pass new laws, it can make life difficult for an agency that is intent on taking actions that it dislikes. For example, agency leaders can be called to appear before a hostile committee, which both increases the costs to the agency of doing business and potentially imposes a reputational cost on the political appointees or civil servants who have to testify. Congress also can threaten to slash an agency’s budget, can conduct additional monitoring (e.g., requesting investigative reports by the Government Accountability Office), can spur inspectors general to conduct time-consuming investigations of agency actions, can pressure agencies through informal means (e.g., via staff-to-staff interactions), or can institute onerous reporting requirements. When Congress opposes an agency, it has no shortage of tactics it can use to make life difficult for that agency (Shipan 2005).

Agencies are aware that Congress always has these statutory and non-statutory tools at hand. But they also know that Congress is more likely to utilize these tools, and to increase the costs of rulemaking to an agency, when it opposes the agency’s actions. More specifically, when congressional opposition to an agency is both strong (i.e., in terms of size) and unified (meaning that Congress more capable of overcoming its collective action problems), it will be more likely to utilize one or more of these tools and, in so doing, raise the costs of rulemaking to an agency. Therefore, we would expect the agency to be less likely to engage in rulemaking when those conditions are met; and more likely to do so when those conditions are not met. This leads to our final hypothesis:

**H4: Congressional Opposition.** Rulemaking will decrease when the agency’s congressional opponents are relatively strong and in a position to impose costs on the agency.
Data

The creation of a rule via the notice-and-comment process is a technical and lengthy process requiring substantial agency resources.\textsuperscript{10} The process is not speedy; the average duration between the issuance of a proposed rule and the publication of the final rule is just under two years (O’Connell 2008; Potter 2017). However, despite the numerous requirements and potential obstacles associated with the production of rules, agencies engage in a substantial amount of rulemaking. During the period under study, there is significant variation in the number of final rules produced each year. For instance, while the mean number of final rules issued per quarter for all of the agencies in our dataset is 1.08 (s.d. = 1.92), the EPA issued far more rules on average (mean = 4.98, s.d. = 3.22) and the Department of State issued far fewer (mean = 0.25, s.d. = 0.71).\textsuperscript{11}

Our data on federal rulemaking come from the Unified Agenda of Federal Regulatory and Deregulatory Actions (“\textit{Unified Agenda}”),\textsuperscript{12} a semi-annual report on agency rulemaking activity that is published in the \textit{Federal Register}. It includes a list of completed rules for the previous period, including the dates of publication as well as a number of other attributes. Since 1995, agencies have reported on which of their rules in the \textit{Unified Agenda} are “significant.” Because we are interested in rules that move the substantive policy needle, rather than those rules that deal with mundane administrative activities, we rely on indications of a rule’s significance to create two dependent variables. \textit{Proposed Rules} is a count of all significant proposed rules issued by agency $i$ in quarter $t$, for each quarter from 1995-2007,\textsuperscript{13} while \textit{Final Rules} represents the same counts for significant final rules.\textsuperscript{14} Since we are interested in how agencies strategically adjust the volume of proposed and final rules produced in light of separation of powers oversight, as a first cut we exclude any rule with an associated statutory or judicial deadline from
our counts. Agencies have considerably less discretion over these two types of rules and therefore will be more constrained in their choice about the timing of the rule or whether to issue it at all.

**Explanatory Variables**

To test our hypotheses, we include a number of explanatory variables, starting with those that allow us to assess our hypotheses. We begin with our *Presidential Priority* hypothesis (*H1*), which focuses on the extent to which the president has made a particular agency or its policy a key part of his policy agenda. To do this, we follow Bolton, Potter, and Thrower (2016) by focusing on presidential rhetoric and, in particular, presidential priorities as expressed in State of the Union (SOTU) speeches. We start by matching each agency with its primary policy area according to the Policy Agendas Project and then identify how often that policy area was mentioned in a given year’s SOTU. From there, *Priority* is a dichotomous variable that takes on a value of “1” if the agency’s policy area exceeds the mean number of mentions across all agencies in that year, and “0” otherwise.

Next, the variable *Aligned President* allows us to test our hypothesis that an agency is more likely to engage in rulemaking when its ideology is similar to the president’s, and less likely when it differs (*H2*). To operationalize this concept, we use Clinton and Lewis’s (2007) measures of agency ideology based on expert surveys. More specifically, we first classify each agency as liberal or conservative. Next, we create a dichotomous variable that takes a value of 1 either if the president is a Democrat and the agency is liberal, or if the president is a Republican and the agency is conservative. Although imperfect, this measure captures a broad sense of where an agency stands vis-à-vis the president.
We also include two additional measures that allow us to test our other presidential hypothesis (H3). The first variable, *Midnight*, represents the desire of outgoing presidential administrations to lock in their preferred policies through rulemaking when the recent presidential election has produced an incoming president from the other political party. The second variable, *Transition*, captures a similar effect for transitions of power after an election where the government shifts from unified to divided control. We expect both of these variables to have a positive effect on the production of agency rules.

Next we create a variable to test the *Congressional Opposition* hypothesis (H4). To capture agency expectations about congressional opposition, we follow Potter (2017) and create an *Opposition Size Unity* measure by taking the following steps. First, we create a size-unity component for each party by multiplying the size of that party’s contingent in the chamber by the cohesion of that party. Second, we again separate agencies by ideological orientation based on their Clinton and Lewis score. Third, for liberal agencies we divided the Republican size-unity component by the Democratic size-unity component, and do the inverse for conservative agencies. The resulting measure takes on values greater than one when the agency's partisan opposition is strong, and values less than one when the opposition is weak. Thus, this value is larger when agencies are more concerned about the costs that the opposition party might impose (due to its larger size and unity) and smaller when they are less concerned. Overall, *Congressional Opposition* is ideal for our analyses since it addresses congressional actors’ capability to overcome collective action problems and sanction agencies.
Considering the Agency

As outlined in the preceding sections, agencies pay close attention to the president and Congress when deciding whether to create new rules. Thus, in our tests we account for the influence of these external factors. At the same time, it would be a mistake to ignore the importance of internal factors, since features of agencies themselves will affect how costly rulemaking will be. After all, agencies are unique in their histories, locations, missions, cultures, and capacities (Wilson 1989) and consequently may differ systematically in their pursuit of new rules. Accordingly, we control for three key agency attributes: ideology, capacity, and structure.²⁰

First, because rulemaking is a resource-intensive process, agencies need sufficient personnel both to create a rule and also to implement and enforce it once it is officially on the books. More specifically, the larger the agency, in terms of the number of employees, the more likely it will have the capacity to devote personnel to developing rules and seeing them through to fruition (Skryzcki 2003). Hence, we expect larger agencies to propose and finalize more rules. To create Employees (\(\text{ln}\)), which is the logged number of employees in an agency, we rely on annual counts of employees by agencies as collected by the Office of Personnel Management.

Second, because more liberal agencies may be more activist, and because rulemaking often can increase the regulatory burden on an agency’s constituency, we control for agency ideology. Although rulemaking can move policy in either a liberal or conservative direction, our expectation is that because more liberal agencies will derive more benefits from rulemaking, they will be more likely to engage in this activity. The variable Agency Ideology addresses the agency’s overall ideological predisposition (Agency Ideology), using the aforementioned Clinton and Lewis (2007) agency ideology scores, which take on positive values for more conservative agencies and negative values for more liberal agencies.
Third, as previously explained, rulemaking may be costlier for independent agencies than for executive branch agencies. Accordingly, we control for whether agencies are independent or located within the executive branch using the binary variable Independent. Our expectation is that independent agencies will be less likely to engage in rulemaking.

Finally, we control for one other factor that scholars have suggested might influence the extent of agency rulemaking: Divided, a dummy variable indicating whether control of government is unified or divided. We do not have strong prior expectations about the effect of this variable, since one could argue that divided government might decrease rulemaking because such a condition makes it hard for agencies to satisfy political principals (Bertelli 2016; Yackee and Yackee 2009), or conversely that it might increase rulemaking since agencies are less fearful that political principals will be able to coordinate their efforts to reign in an agency (Boushey and McGrath 2015).

Analysis

Because our dependent variables are constituted as counts of rules and their distributions are highly non-normal, standard OLS models are not appropriate. Accordingly, we rely on negative binomial models, an approach that accommodates the presence of overdispersion. Importantly, we include random effects at the agency level to address unobserved heterogeneity. Finally, to account for time trends, we include time and time-squared.

Table 1 presents the results for both Proposed Rules and Final Rules. Overall, the results provide strong support for the role of Congress and mixed support for the role of the president. First, consider our presidential support variables, Priority and Aligned President. Priority is not significant for either proposed rules (Model 1) or final rules (Model 2). The results for Aligned
President, however, do provide some support for our theoretical proposition in H2 that agencies that share an ideological affiliation with the president are likely to capitalize on that support by increasing their rulemaking output – at least for proposed rules. Table 2 shows the substantive effect of these results. Compared to a quarter where the agency is not aligned with the president, aligned agencies will propose 0.12 more rules, which implies that over the course of one presidential term aligned agencies will propose two additional significant rules. Meanwhile, although the effect is positive (as expected) for final rules, the coefficient does not achieve statistical significance.

[Insert Tables 1 and 2 about here]

Unexpectedly, the results suggest that agencies are less likely – and not more likely, as we predicted – to issue final rules during periods of transition from unified to divided government. We do, however, find the anticipated effect for Midnight, at least for final rules. Agencies are more likely to finalize midnight rules during the period before a president of a new party takes office, to the tune of 6.1 more final rules during midnight quarters than during non-midnight quarters. The fact that Midnight is significant for final rules but not for proposed is unsurprising; agencies that are part of an outgoing administration seek to lock in policy with a final rule, rather than propose new policies, which they could not possibly hope to finalize during the midnight period.

To assess the Congressional Opposition hypothesis (H4), we turn to the Opposition Size Unity variable, which we predict to be negative, indicating that agencies that face a larger and more cohesive congressional opposition are more likely to hold back on rulemaking activities. Here we see that rulemaking is indeed decreasing in the strength of the agency’s congressional opposition. The results indicate that as the opposition party becomes stronger, agencies become
more cautious and less likely to complete the rulemaking process. Substantively, this means that moving from one standard deviation below the mean value to one standard deviation above the mean produces a decrease of 0.28 proposed rules or 0.17 final rules in a given quarter. These results provide a measure of support for the theoretical argument regarding the effect of separation of powers on agency rulemaking activity.

Importantly, these factors matter even when we control for an agency’s characteristics, which also influence the level of rulemaking activity. To begin with, the positive and significant coefficient for Employees (ln) demonstrates that agency rulemaking is, at least in part, a function of the agency’s internal characteristics. Although the effect of Independent is not significant, Agency Ideology is significant and negative. Given that this variable is coded such that more conservative agencies take on higher values, the negative coefficients in Models 1 and 2 indicate that, all else equal, conservative agencies issue fewer rules (both proposed and final) than more liberal agencies. Taken together, these two results about agency size and ideology provide some affirmation for our argument about bureaucratic motivations. That is, as Teodoro (2011) argues, agencies that are larger (and govern more turf) may attract more ambitious leaders, which may in turn result in more rulemaking. Additionally, there may be a selection effect regarding the type of people who choose to work in an agency of one ideological bent rather than another. Those that choose more conservative agencies may share conservative professional backgrounds (Adolph 2013) and choose to demonstrate their career bona fides in ways other than rulemaking, since regulation is often associated with more liberal policy goals.

Finally, consistent with Yackee and Yackee (2009), our results show that periods of divided government are associated with fewer rulemakings. Models 1 and 2 thus show the influence of both separation of powers factors and an agency’s type on an agency’s rule output.
Specifically, agencies are more likely to increase their production of final rules and significant final rules when Congress is capable of taking action to sanction them, when they are in general ideological agreement with the president (for proposed rules), when it is a transition or a midnight period (for final rules) and when they have greater capacity (as measured by the number of employees).

In addition to the models presented here, we also conduct a number of robustness checks, which we explain in greater detail and present in the Appendix. To begin with, we re-estimate Models 1 and 2 in several ways. First, we include rules that have a deadline (Table A4). Second, we aggregate data by year rather than by quarter (Table A5). Third, we use an alternative estimation technique, Poisson Pseudo-Maximum Likelihood (PPML, Table A6), to demonstrate that our results are not dependent on the particular modeling approach. Next we employ an alternative measure of our congressional opposition variable that takes into account agenda-setting powers of the majority party (Table A7). We also consider the role of congressional committees in providing oversight (Table A8). And, lastly, we take a more nuanced approach to considering agency ideology (Table A9). None of these changes affect the substantive takeaways of the results presented above.

Our next set of checks extends the model’s theoretical reach. We start with a placebo test of sorts: we consider tests of separate sets of proposed and final rules that agencies deemed as “insignificant” in the Unified Agenda. Table A10 shows predominantly null results for our key theoretical variables, suggesting that political effects are targeted at significant rules and not insignificant ones. This finding is consistent with our expectations that political factors affect substantive issues, but that they matter little for the sorts of mundane rules that fly beneath the radar. Last, in Table A11 we consider the effect of a different institution – the courts – on agency
rule production. Although we find little by way of a systematic influence of the judiciary on proposed or final rules, we do not view this as dispositive, a point to which we return in the conclusion.

**Presidential Influence in Context**

Although the results in Table 1 provide compelling evidence of agencies adjusting rulemaking output in response to separation of powers oversight, the results for whether the president prioritizes an agency are somewhat puzzling. In the literature, presidents are presumed to play a critical role in the rulemaking process. Yet our results indicate that Priority does not affect the production of either proposed or final rules. These results, however, assess only whether Priority has a *direct* effect on the production of rules, so we now check to see whether it has an *indirect* affect – is, whether it modifies the effect of our other main variables. To do this, we separately consider the effects of each of our covariates for non-priority agencies and for priority agencies.\(^2\) Table 3 presents these results, using the same modeling approach as before, and Table 4 presents the changes in predicted values associated with each of the models.

[Insert Tables 3 and 4 about here]

Overall, the results provide support for the idea that presidential prioritization of an agency magnifies the effects of other factors. We start by focusing on Aligned President, with the goal of discerning whether the ideological differences between a president and an agency matters for rulemaking both when the agency is a presidential priority and when it is not. As shown in Models 4 and 6, we find strong evidence that such alignment leads to a significant increase in both proposed and final rules when the agency is a presidential priority, but also that alignment does not produce an increase in rulemaking in agencies that are not presidential.
priorities (and indeed is significant in the opposite direction for final rules). More specifically, agencies increase the number of rules produced per quarter by 1.01 proposed rules (Model 4) and 0.44 final rules (Model 6) when they are a presidential priority and they share the president’s ideological orientation. Thus, we find that Priority has an indirect effect on rulemaking by modifying the effects of Aligned President.

Agency responses to presidential prioritization are also evident with respect to midnight rulemaking, at least for Final Rules. First, Midnight has a positive and statistically significant effect for final rules in both non-priority and priority agencies. Second, as shown in Table 4, the size of the effect of Midnight on Final Rules is considerably magnified in priority agencies; while non-priority agencies are predicted to produce an additional two final rules in a midnight quarter, priority agencies are predicted to issue 22 more final rules as compared to a non-midnight quarter.

Finally, we find no moderating effect of Priority on either Transition or Opposition Size Unity. Transition is insignificant across all four models in Table 3, regardless of whether the agency is a priority. For Opposition Size Unity, we find that the effect of Congress is negative (as expected) in all of the models and significantly different from zero in three of them. However, the differences between the relevant pairs of coefficients are statistically and substantively insignificant – that is, the coefficients for Opposition Size Unit in Model 3 (Non-priority) and Model 4 (Priority) are statistically indistinguishable, as they are for Models 5 and 6. This finding suggests that Congress is unaffected by the president’s prioritization of specific agencies.

Overall, we take these results on the moderating effect of Priority to speak to the comparative influence of Congress and the president. While other studies suggest that the
president has a comparative advantage in influencing bureaucratic action (e.g., Clinton, Lewis, and Selin 2014), we find that the president’s influence is limited to those agencies that he has made a priority. More specifically, we observe stronger effects for *Aligned President* and *Midnight* if the president prioritizes those agencies. Furthermore, *Midnight* also highlights a distinction between proposed rules (which it does not influence) and final rules (which it does). These results are also consistent with recent work by Bolton, Potter, and Thrower (2016), which suggests the president’s influence in rulemaking is much weaker than scholars sometimes posit. Although those authors focus on how presidential influence is constrained by resources, we find that limits on presidential attention may also affect the president’s ability to influence agency rule production. Congress’s influence, however, is not conditional on the president. Hence, our results reinforce Kerwin and Furlong’s (2011, p. 30) contention that “in the battle for influence over bureaucracy, congressional powers are at least as substantial as those of the president.”

**Conclusion**

Rulemaking is an extraordinarily important political activity, touching on many of the most prominent and controversial policies in American politics. Aside from a few pioneering studies (e.g., O’Connell 2008, 2011; Yackee and Yackee 2009), political scientists have paid little systematic attention to its root causes. Our study adds to this growing literature in a number of significant ways. Most basically, our results indicate that agencies take other institutions into account when deciding whether to engage in rulemaking. This finding suggests that the volume of rules issued each quarter is not merely the product of administrative needs, agency capacity, or statutory demands, but rather is the result of a deliberate calculation on the agency’s part. In particular, we find that to the extent that agencies share ideological similarities with the
president, they are more likely to engage in rulemaking. In addition, we find that agencies, recognizing the myriad ways in which Congress can make their lives difficult, produce fewer rules when faced with strong opposition forces.

Our results also speak to the balance between Congress and the president in overseeing rulemaking, albeit in a limited way. We find that agencies are most able to realize benefits from presidential favor when presidents have explicitly prioritized them; meanwhile, Congress’s power to serve as a deterrent in rule production persists regardless of the president’s orientation of the agency. While these obviously are not apples-to-apples comparisons, we believe they suggest that scholars should continue to seriously consider the role that Congress plays in affecting agency rule production.

Although these are important findings, they also leave us with a number of questions. First, the count aspect of our data has forced us to combine two distinct types of rules in our analysis: rules that are regulatory and rules that are deregulatory. Analyzing the content of the rules under study is of course beyond the scope of this analysis, but we think it is a worthy pursuit for future research. Second, we briefly considered the influence of the courts on agency rulemaking decisions without detecting any systematic effects. However, we recognize that the courts are important institutional actors and that agencies are likely to be sensitive to the predilections of judicial overseers (Shipan 2000; Canes-Wrone 2003; Hume 2009). In light of this, we encourage future researchers to consider the nuanced relationship between agencies and courts, and perhaps how these relationships may be specific to particular policy areas and legal doctrines.

Even allowing for these questions, our study contributes to an evolving view of agencies as strategic actors in the rulemaking game. Although ideas and arguments that long have been
central to the voluminous legal literature on rulemaking, such as on the proper scope of rulemaking, the legitimacy of legal foundations for rulemaking, and the consequences of rulemaking activity, will continue to be important, they should be considered in light of the findings that emerge here. In particular, patterns of agency rulemaking activity clearly demonstrate the influence of other political actors in the separation of powers system.
References


Table 1. Counts of Proposed Rules and Final Rules by Quarter

<table>
<thead>
<tr>
<th></th>
<th>Model 1 Proposed Rules</th>
<th>Model 2 Final Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>-0.002</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>(0.108)</td>
<td>(0.116)</td>
</tr>
<tr>
<td>Aligned President</td>
<td>0.118*</td>
<td>0.060</td>
</tr>
<tr>
<td></td>
<td>(0.062)</td>
<td>(0.068)</td>
</tr>
<tr>
<td>Transition</td>
<td>-0.216</td>
<td>-0.376</td>
</tr>
<tr>
<td></td>
<td>(0.248)</td>
<td>(0.285)</td>
</tr>
<tr>
<td>Midnight</td>
<td>-0.549</td>
<td>2.050**</td>
</tr>
<tr>
<td></td>
<td>(0.493)</td>
<td>(0.436)</td>
</tr>
<tr>
<td>Opposition Size Unity</td>
<td>-0.865**</td>
<td>-0.563*</td>
</tr>
<tr>
<td></td>
<td>(0.303)</td>
<td>(0.317)</td>
</tr>
<tr>
<td>Employees (ln)</td>
<td>0.323**</td>
<td>0.367**</td>
</tr>
<tr>
<td></td>
<td>(0.079)</td>
<td>(0.072)</td>
</tr>
<tr>
<td>Agency Ideology</td>
<td>-0.341**</td>
<td>-0.673**</td>
</tr>
<tr>
<td></td>
<td>(0.136)</td>
<td>(0.130)</td>
</tr>
<tr>
<td>Independent</td>
<td>-0.309</td>
<td>-0.097</td>
</tr>
<tr>
<td></td>
<td>(0.364)</td>
<td>(0.337)</td>
</tr>
<tr>
<td>Divided</td>
<td>-0.160*</td>
<td>-0.206**</td>
</tr>
<tr>
<td></td>
<td>(0.073)</td>
<td>(0.082)</td>
</tr>
<tr>
<td>Time</td>
<td>-0.009</td>
<td>-0.039**</td>
</tr>
<tr>
<td></td>
<td>(0.008)</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Time²</td>
<td>0.0002*</td>
<td>0.001**</td>
</tr>
<tr>
<td></td>
<td>(0.0001)</td>
<td>(0.0002)</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.067</td>
<td>-1.999**</td>
</tr>
<tr>
<td></td>
<td>(0.901)</td>
<td>(0.829)</td>
</tr>
</tbody>
</table>

N = 1924 1924 1924

Note: Table entries are maximum likelihood coefficients obtained from negative binomial models, with random effects at the agency-level and standard errors clustered on the agency. The agency-quarter is the unit of analysis. One-tailed tests: * p < .05, ** p < .01.
Table 2. Predicted Changes in Proposed and Final Rule Volume

<table>
<thead>
<tr>
<th>Variable</th>
<th>Proposed Rules</th>
<th>Final Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Aligned President</td>
<td>0.12</td>
<td>-</td>
</tr>
<tr>
<td>Transition</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Midnight</td>
<td>-</td>
<td>6.18</td>
</tr>
<tr>
<td>Opposition Size Unity</td>
<td>-0.28</td>
<td>-0.17</td>
</tr>
</tbody>
</table>

Note: Table entries are predicted changes in the number of rules produced per quarter for Proposed Rules (Model 1) and Final Rules (Model 2) for independent variables that are statistically significant in the predicted direction. Calculations assume a change from 0 to 1 for dichotomous variables and a change from one standard deviation below the mean to one standard deviation above the mean for continuous variables. All other variables held constant at their mean values.
Table 3. Proposed Rules and Final Rules for Priority and Non-Priority Agencies by Quarter

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aligned</strong></td>
<td>-0.123</td>
<td>0.564**</td>
<td>-0.217**</td>
<td>0.316**</td>
</tr>
<tr>
<td><strong>President</strong></td>
<td>(0.083)</td>
<td>(0.116)</td>
<td>(0.095)</td>
<td>(0.123)</td>
</tr>
<tr>
<td><strong>Transition</strong></td>
<td>-0.164</td>
<td>-0.410</td>
<td>-0.327</td>
<td>-0.484</td>
</tr>
<tr>
<td></td>
<td>(0.292)</td>
<td>(0.436)</td>
<td>(0.331)</td>
<td>(0.503)</td>
</tr>
<tr>
<td><strong>Midnight</strong></td>
<td>-0.398</td>
<td>-1.447</td>
<td>1.341**</td>
<td>2.842**</td>
</tr>
<tr>
<td></td>
<td>(0.554)</td>
<td>(1.049)</td>
<td>(0.559)</td>
<td>(0.689)</td>
</tr>
<tr>
<td><strong>Opposition Size</strong></td>
<td>-0.613*</td>
<td>-1.131*</td>
<td>-0.178</td>
<td>-0.980*</td>
</tr>
<tr>
<td><strong>Unity</strong></td>
<td>(0.362)</td>
<td>(0.540)</td>
<td>(0.377)</td>
<td>(0.589)</td>
</tr>
<tr>
<td><strong>Employees (ln)</strong></td>
<td>0.402**</td>
<td>0.552**</td>
<td>0.421**</td>
<td>0.514**</td>
</tr>
<tr>
<td></td>
<td>(0.100)</td>
<td>(0.125)</td>
<td>(0.094)</td>
<td>(0.116)</td>
</tr>
<tr>
<td><strong>Agency Ideology</strong></td>
<td>-0.394*</td>
<td>-0.669**</td>
<td>-0.618**</td>
<td>-0.857**</td>
</tr>
<tr>
<td></td>
<td>(0.205)</td>
<td>(0.161)</td>
<td>(0.212)</td>
<td>(0.146)</td>
</tr>
<tr>
<td><strong>Independent</strong></td>
<td>-0.225</td>
<td>-0.531</td>
<td>-0.156</td>
<td>-0.351</td>
</tr>
<tr>
<td></td>
<td>(0.439)</td>
<td>(0.549)</td>
<td>(0.408)</td>
<td>(0.455)</td>
</tr>
<tr>
<td><strong>Divided</strong></td>
<td>-0.129</td>
<td>-0.328**</td>
<td>-0.195*</td>
<td>-0.392**</td>
</tr>
<tr>
<td></td>
<td>(0.087)</td>
<td>(0.134)</td>
<td>(0.098)</td>
<td>(0.152)</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>-0.0001</td>
<td>-0.024</td>
<td>-0.028**</td>
<td>-0.055**</td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td>(0.015)</td>
<td>(0.012)</td>
<td>(0.017)</td>
</tr>
<tr>
<td><strong>Time²</strong></td>
<td>0.0001</td>
<td>0.001**</td>
<td>0.001**</td>
<td>0.001**</td>
</tr>
<tr>
<td></td>
<td>(0.0002)</td>
<td>(0.0003)</td>
<td>(0.0002)</td>
<td>(0.0003)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-1.666</td>
<td>-3.916**</td>
<td>-2.564**</td>
<td>-3.408**</td>
</tr>
<tr>
<td></td>
<td>(1.102)</td>
<td>(1.508)</td>
<td>(1.049)</td>
<td>(1.452)</td>
</tr>
</tbody>
</table>

*N* 1448  476  1448  476

*Note:* Table entries are maximum likelihood coefficients obtained from negative binomial models, with random effects at the agency-level and standard errors clustered on the agency. The agency-quarter is the unit of analysis. One-tailed tests: * p < .05, ** p < .01. * indicates significance at the .05 level in the direction opposite from the prediction.
Table 4. Predicted Changes in Proposed and Final Rule Volume, Non-Priority and Priority Agencies

<table>
<thead>
<tr>
<th></th>
<th>Proposed Rules</th>
<th></th>
<th>Final Rules</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Priority</td>
<td>Priority</td>
<td>Non-Priority</td>
<td>Priority</td>
</tr>
<tr>
<td>Aligned President</td>
<td>-</td>
<td>1.01</td>
<td>-</td>
<td>0.44</td>
</tr>
<tr>
<td>Transition</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Midnight</td>
<td>-</td>
<td>-1.45</td>
<td>2.28</td>
<td>21.77</td>
</tr>
<tr>
<td>Opposition Size</td>
<td>-0.18</td>
<td>-0.68</td>
<td>-</td>
<td>-0.45</td>
</tr>
<tr>
<td>Unity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Table entries are predicted changes in the number of rules produced per quarter for Proposed Rules (Models 3 and 4) and Final Rules (Model 5 and 6) for independent variables that are statistically significant in the predicted direction. Calculations assume a change from 0 to 1 for dichotomous variables and a change from one standard deviation below the mean to one standard deviation above the mean for continuous variables. All other variables held constant at their mean values.
The courts similarly receive policymaking authority, in particular through the power of judicial review that is drawn (indirectly) from the Constitution. Because judicial oversight takes such different forms and is largely reactive, here we focus primarily on Congress and the president. In the Appendix we do, however, consider the empirical effects of the courts.

In this section, we alternate between discussing the motivations of bureaucrats and agencies. We do so not to reify agencies, but rather because it is reasonable to assume that individual incentives within agencies will aggregate to form shared goals. A separate analysis that identifies and unpacks situations in which such aggregation does not occur would be a welcome addition to the literature on agency policymaking.

Notably, the opportunity for bureaucrats to use rulemaking to enact their preferred policies exists whether those policy preferences are liberal or conservative. In the example of the WOTUS rule, the agency was able to implement its more liberal preferences. But in other cases, agencies have enacted rules that move policy in a conservative direction. For example, the aforementioned mountaintop coal mining rule issued by the DOI during the George W. Bush years steered policy in a direction that was seen as more friendly toward business interests and less in line with the views of environmentalists.

For a brief discussion of the benefits and costs of rulemaking to different types of bureaucrats, see Kerwin and Furlong (2011, 35-36), which we build upon here.
Media accounts often suggest that the president is the primary initiator of rulemaking activity; this was particularly true of President Obama, who was often credited with using rulemaking to accomplish actions unilaterally. However, this perspective is misleading. Presidents do not write rules; instead they must convince bureaucrats to create rules that align with their policy agendas. Because bureaucrats can be a president’s “worst enemies” (Neustadt 1990[1960]), this is never guaranteed, as our argument highlights.

Many scholars have noted this potential chilling effect (e.g., Croley 2003; Anonymous 2011). However, Acs and Cameron (2013) find no evidence that anticipation of OIRA review causes agencies to engage in less rulemaking.

In addition to expecting more rulemaking from all agencies under conditions of midnight and transition, one might reasonably expect to find that priority agencies are especially likely to produce more rules under these conditions. We return to this point later in the paper.

Since these riders are tacked on to “must pass” legislation, they do not suffer nearly the same level of veto threat as other forms of statutory action.

The majority of rulemaking sanctions for agencies originate with the actions of the collective body of Congress (e.g. use of the Congressional Review Act or overwriting a rule through legislative action), but committees also can serve as an important source of congressional oversight of agencies. While our theoretical focus is on broader congressional powers, we consider the role of committee oversight later in the robustness section. Essentially, we use
Marvel and McGrath’s (2016) measures of the number and content of oversight hearings to examine whether this sort of committee pressure either reduces rulemaking overall or has an effect on any of our main variables. It does neither.

10 Agencies first draft a Notice of Proposed Rulemaking, or proposed rule, and publish it in the Federal Register. The public is then invited to comment on the proposal, and some agencies hold public hearings in conjunction with the comment period. Next, the agency considers the feedback it received in drafting a final rule. The final rule, also published in the Federal Register, must either incorporate the changes suggested by commenters or explain why the agency refrained from adopting the suggestions. We explore the effects of our independent variables on both proposed and final rules; we do not make predictions about how these effects should vary across the two types of rules, but instead allow the data to speak to these differences.

11 Table A1 in the Appendix lists the 24 executive branch and 15 independent agencies covered in our analyses. Because some agencies were created or moved during the course of our study, not every agency is included in every quarter.

12 We thank Anne O’Connell for generously sharing these data with us.

13 Our focus on the quarter level is a compromise approach; none of our variables vary at the month level, but some do vary within year. The quarter level allows us to capture this variation without artificially inflating our sample size.
14 We include only final rules that have an associated proposed rule listed in the *Unified Agenda*. Although this truncates our dataset, it ensures that we examine only meaningful policy changes (Yackee and Yackee 2009). In addition, it excludes interim final and direct final rules, which follow a separate process than the rules in our dataset and may respond differently to the factors under study here.

15 Table A2 of the appendix summarizes all of the variables included in the empirical analysis. Table A3 provides descriptive statistics.

16 These scores place agencies on a left-right continuum and are representative of the agency’s broad mission, since they are time-invariant. We count an agency as liberal if its Clinton and Lewis score is below zero, and conservative if that score exceeds zero.

17 This is, admittedly, a rather blunt approach. As Clinton and Lewis (2007) themselves note, relying on the judgment of experts to evaluate agency ideology inherently encompasses the agency’s mission, as well as the things it does, such as rulemaking. Nevertheless, because the ideology estimates are time-invariant, they are independent of variation in rulemaking volume, which is what we aim to explain here.

18 We generally follow Yackee and Yackee (2009) in creating and coding these variables, albeit with two changes. Whereas they treat *Transition* as a dummy variable that equals 1 during the months of November, December, and January, but *Midnight* as a dummy variable that takes a value of 1 during only December and January, we use November through January for both
variables. In addition, because our data are quarterly (rather than monthly), we average these monthly values over a quarter. Thus, for example, $\text{Midnight} = 0.66$ during the fourth quarter of an outgoing administration that is being replaced by an incoming administration of the opposing party (because two of the three months in the quarter take place after the election) and 0.33 during the first quarter of the next year.

19 The size-unity ratio is substantively similar to the “Legislative Potential for Policy Change” measure (Hurley, Brady, and Cooper, 1977), but is easier to interpret. For a liberal agency it is calculated by determining the scores for the House and the Senate, as follows:

$$
\text{Opposition Size Unity}_{\text{liberal}} = \frac{\text{Republican size} \times \text{Republican cohesion}}{\text{Democrat size} \times \text{Democrat cohesion}}
$$

and then averaging the result across the two chambers.

20 Our econometric approach allows us to control for other unobserved agency characteristics.

21 In addition to known problems with the use of fixed effects in negative binomial models (Allison and Waterman 2002), the use of random effects has an additional advantage in our case as two of our agency variables, Agency Ideology and Independent, do not vary within panel.

22 Results using time, time-squared, and time-cubed (following Carter and Signorino 2010) are virtually identical in terms of substance and significance to those obtained using time and time-squared. Thus, we present the simpler models here.

23 We note that although the effect sizes in Table 2 may not appear large, they are based on quarterly changes, and may aggregate up to larger effects over longer periods of analysis.
For simplicity and ease of interpretation, we present the results as a split sample of non-priority and priority agencies. The results are unaffected by interacting priority with each of the measures in a full model; see Table A12 in the appendix for this specification.

The coefficients for *Midnight* are statistically indistinguishable from zero for proposed rules, regardless of whether the agency is a priority. In addition, the coefficients for *Midnight* in Models 3 and 4 (i.e., the effect on proposed rules for non-priority agencies versus the effect on proposed rules for priority agencies) are statistically indistinguishable from each other, indicating that priority status does not modify the effects of *Midnight* for proposed rules.

In addition to being substantively large, this difference is statistically significant.