

Presidential Rulemaking

Tiberiu Dragu¹

Stanford University

Email: tdragu@stanford.edu

September 15, 2008

¹I thank Josh Cohen, Xiaochen Fan, Jim Fearon, John Ferejohn, Dan Ho, Simon Jackman, Tim Johnson, Karen Jusko, and Terry Moe for helpful comments and suggestions. All errors are mine.

Abstract

In this paper I empirically analyze the president's impact on agency rulemaking. I perform a Bayesian multilevel logistic regression on the outcome of presidential rulemaking review by using a new data set consisting of 1,984 major regulations reviewed between 1981 and 2007 by the Office of Information and Regulatory Affairs (OIRA), a unit within the Office of Management and Budget. I show that the probability of OIRA intervention in rulemaking increases (i) with the president's time in office (ii) in a presidential reelection year, (iii) if the president enjoys higher popularity, and (iv) if the rule being reviewed is more salient. Moreover, OIRA intervention is higher in the Clinton administration as compared to the Reagan administration. However, conditional on an intervention, the probability of OIRA blocking a rule from taking legal effect is lower in the Clinton administration as compared to any Republican administration. These findings suggest that all presidents, regardless of their partisanship, use OIRA review to control agency rulemaking, but the direction of OIRA intervention depends on the president's regulatory orientation. The empirical analysis illustrates the nature and scope of presidential intervention in rulemaking and contributes to studies of political control, administrative law, and regulation.

On March 13, 2008, the Environmental Protection Agency (EPA) reduced acceptable ozone levels from 84 parts per billion (ppb) to 75 ppb. The EPA estimated that this change would cost polluting industries \$7.6 billion to \$8.8 billion. However, under pressure from the White House, EPA Administrator Stephen L. Johnson made the standards significantly less restrictive than those recommended by scientists: the unanimous advice of the Clean Air Scientific Advisory Committee was to set the limit between 60 and 70 ppb.

The White House also instructed the EPA to remove a secondary ozone standard. Under the Clean Air Act, EPA could set a secondary standard to regulate the long-term effect of ozone on the environment. The EPA wanted to issue a secondary standard, which would have given the agency discretion in setting ozone limits in order to protect vegetation and wildlife from ozone exposure during seasonal cycles. However, Susan Dudley, the head of the Office of Information and Regulatory Affairs (OIRA), a unit within the Office of Management and Budget, communicated to EPA Administrator that “the president has concluded that consistent with administration policy, added protection should be afforded to public welfare by... setting [the secondary standard] to be identical to the new primary standard” (Office of Information and Regulatory Affairs 2008).

Presidential intervention in agency rulemaking such as the one described above is not exceptional. Rather, presidential intervention in rulemaking is a permanent part of the modern regulatory state. Since Ronald Reagan issued Executive Order 12291 in 1981, every president has required executive agencies to send their regulations to OIRA for review.¹ OIRA reviews regulations to determine if they are consistent with the president’s policies. If a rule is inconsistent, OIRA asks an agency to change the rule and the agency cannot publish the rule in the Federal Register until the agency makes the required changes.

Since its beginning, OIRA intervention in rulemaking has generated lively debates in the legal scholarship, debates about the role of economic analysis in rulemaking, the constitu-

¹Before Reagan, presidents have overseen the rulemaking process on an informal basis. President Nixon initiated the centralization of the rulemaking process through his “Quality of Life” program. The Nixon program served as a foundation for later efforts to build a stronger centralized presidential review system.

tionality of OIRA review, and its role in improving administrative efficiency (DeMuth and Ginsburg 1986; Morrison 1986; McGarity 1987; Percival 1991; Lessig and Sunstein 1994; Blumstein 2001; Kagan 2001; Croley 2003; Bagley and Revesz 2006; Bressman and Vandenberg 2006). Political scientists have also studied centralized presidential review and argued that OIRA review allows the president to monitor the substance of individual regulations; thus, rules issued under OIRA review are more consistent with the president's policies than rules issued in the absence of OIRA review (Cooper and West 1988; Moe and Wilson 1994; West 2005).

A key theoretical debate in the existing literature is whether OIRA review is an instrument that every president, regardless of his partisanship, uses to control agency rulemaking or whether OIRA review is a conservative instrument that Republican presidents use to curb the regulatory state. Some scholars argue that all presidents use OIRA review to influence rulemaking (Moe and Wilson 1994; Kagan 2001); other scholars argue that Republican presidents are more aggressive in using OIRA review to control agency rulemaking (Olson 1984; Percival 1991; Bagley and Revesz 2006). But, although both political scientists and legal scholars have been studying OIRA review since its inception, a rigorous empirical analysis of OIRA review of agency rulemaking is missing.²

In this paper, I provide the first rigorous empirical analysis of OIRA intervention in rulemaking. I argue that all presidents, regardless of their partisanship, use OIRA review to advance their policy objectives. All presidents face a constitutional constraint: the Constitution gives the president no independent legislative capacity. As a result, the president have to bargain with congressional members to achieve his policy objectives. A stylized fact is that over the course of a presidential administration, a president's influence in Congress decreases. In response, the president, regardless of his partisanship, turns to administration, a sphere in which he is formally independent of Congress.

To empirically assess the above argument, I use a new data set consisting of 1,984 eco-

²An exception is Croley (2003) who empirically studied OIRA review during Clinton years.

nominally significant rules that OIRA reviewed between 1981 and 2007. Consistent with the theory, the probability of OIRA intervention in a rule review increases by 22% for a president in the eighth year of his administration as compared to the first year of his administration. I also find that the average probability of OIRA intervention is higher in the Clinton administration as compared to the Reagan administration. However, conditional on an intervention, the average probability of OIRA blocking a rule from taking legal effect is lower during the Clinton administration as compared to any Republican administration. These findings suggest that all presidents, regardless of their partisanship, use OIRA review to control agency rulemaking, but the direction of OIRA intervention depends on the president's regulatory orientation.

In addition, the average probability of OIRA intervention increases (i) in a presidential reelection year, (ii) if the president enjoys higher popularity, and (iii) if the rule being reviewed is more salient. Moreover, OIRA intervention in rulemaking does not vary in accordance with congressional variables. The analysis illustrates the nature and scope of presidential intervention in rulemaking and shows that presidential variables strongly impact agency regulations.

This empirical analysis contributes to the literature on political control of bureaucracy. The political control literature has repeatedly shown that bureaucratic actions are correlated with political stimuli (Moe 1982; Moe 1984; Wood 1988; Wood and Waterman 1991; Balla 1998; Balla and Wright 2001). However, most empirical studies have analyzed a single agency or a few similar agencies and this focus might come at the cost of generality.³ This paper offers a comprehensive empirical analysis that allows us to make inferences about the scope of presidential control of executive agencies. Moreover, the presidential control literature has mainly analyzed bureaucratic enforcement activities. Most empirical works show that enforcement activities are correlated with presidential stimuli, such as presidential appointments or partisanship (Moe 1982; Moe 1984; Wood 1988; Wood and Waterman

³An exception is Wood and Waterman (1991).

1991; Wood and Waterman 1994). Although scholars have recognized the importance of centralized presidential review of rulemaking, presidential control of rulemaking has not yet been empirically analyzed.

The paper proceeds as follows. In section 1, I discuss the rulemaking process and the role of OIRA review. In section 1.1, I discuss the agency rulemaking that would result in the absence of any presidential influence, this discussion helps understanding the president's control problem. In section 1.2, I develop the argument for when the president intervenes in rulemaking. In section 2, I describe the data. In section 3, I present the estimation strategy and the empirical findings. In section 4, I conclude.

1 The Bureaucracy, the President, and OIRA Review

1.1 Rulemaking without Presidential Influence

Congressional statutes provide the legal basis for rulemaking. However, for a variety of reasons, Congress is unwilling or unable to write sufficiently specific laws (Fiorina 1984; Epstein and O'Halloran 1999). Congress establishes the goals of policy but delegates to agencies the decisions of how to achieve the goals. As a result, agencies have discretion, within bounds, in determining the distributive consequences of public statutes.

Rulemaking thus entails conflict about the allocation of gains and losses and involves political choices that clearly identify winners and losers. And just as lawmaking is the result of bargaining among congressional members with an eye toward their interests, rulemaking is the result of bargaining among executive branch actors with an eye toward their interests. But unlike congressional bargaining, executive branch bargaining is hierarchical and takes place between unequal actors: the president is the head of the executive office and has formal authority over executive agencies.

In spite of that, agencies might develop rules independently or with little concern for the president's interests (Nathan 1983). Although the usual scholarly assumption is that an

agency rule results from the choice of a unitary actor (“the Agency ”), agency rulemaking is the result of a complex bargaining process among career bureaucrats, congressional members, and affected interest groups.

First, intense political activity surrounds rulemaking since affected parties are the immediate losers and beneficiaries. Their motive is simple: losers want to minimize their costs and winners want to maximize their benefits (Harter 1982; Golden 1998). To this end, they invest resources, time, and effort to contact, lobby, and build coalitions with congressional members and bureaucrats inside the agency to get support for their cause.

Second, congressional members care about how a rule affects individuals and groups within their districts, for them influencing rulemaking is a type of constituency service. And they use their committee or subcommittee positions, budget riders, oversight hearings, as well as their informal relationship with agency officials to bend the bargaining outcome in favor of their constituencies (Kerwin 2003).

Finally, career bureaucrats want to achieve their agency’s statutory mission (Wilson 1988). To do this, career bureaucrats have important informal and formal powers: they have more knowledge about the agency and its political environment, they enjoy continuity in office, and, more importantly, they remain the delegees of congressional authority (Rourke 1969).

However, within the same agency, bureaucrats have different perspectives on how to achieve statutory objectives. Drafting a rule is the result of interactions among individuals with different policy views. The scientists pay attention to the technical aspects, the policy analysts to the welfare implications, and the lawyers to the legal implications and potential litigation (West 1988). Also, writing and publishing a rule is not an end in itself; the bureaucrats charged with implementation pay attention to the enforcement aspects (Kerwin 2003).

So when all these are taken into account, a portrait of agency rulemaking emerges. Agency rulemaking is a costly and lengthy bargaining between groups and individual with

different policy views, different interests, and different bargaining powers. As a result, rule-making is a compromise, a compromise that in the absence of presidential intervention may not reflect the president's policy objectives.

1.2 Presidential Influence in the Rulemaking Process

To control the bureaucracy, the president can select presidential appointees that share his ideology (Nathan 1983; Moe 1985). Appointees are nominally in charge of the agency decision-making but their influence in rulemaking is limited. For one, their time horizon is limited and, second, they must act in a given political context.

First, the political appointees are short-term oriented whereas the bureaucrats, the affected groups, and congressional members have cultivated a long-term relationship (Hecklo 1977). The average length of stay for an appointee in an executive department is less than three years (Wood and Marchbanks 2007), whereas the average length of writing a major regulation is more than three years (Kerwin 2003). Given the length of time required to promulgate rules the most salient impact of political appointees is not necessarily on rule-making, but rather in other areas of bureaucratic activities such as enforcement or agency budget.

Second, the political context in which the appointees operate makes their influence in rulemaking unlikely. Without much of independent staff, the political appointees do not have the resources to solely determine the content of a rule. For example, in the Environmental Protection Agency, in 2004 there were 64 political appointees and 17,933 career bureaucrats (Lewis 2008).

More importantly, no political appointee is likely to consider being the chief executive of a federal agency the peak of her career. As a result, political appointees care not only about controlling agency decisions but also about their future career opportunities (Rourke 1969). To this end, they depend on career bureaucrats for information, advice for interacting in the Washington community, and for everything that increases the appearance of a

successful manager. In exchange, the appointees might 'go native' and advocate rulemaking compromises suggested by long-term administrative actors (Hecklo 1977).

Since 1981, the presidents have overcome the limitations of the appointment strategy by centralizing regulatory review in the Executive Office of the President and putting OIRA in charge of reviewing regulations issued by executive branch agencies. At the end of the rulemaking process, OIRA checks that rules are consistent with the president's objectives on a case-by-case basis. Before the agency can publish a rule (either proposed or final) in the Federal Register, OIRA reviews the rule, identifies changes (if necessary), and then notifies the agency (usually the agency head) about the necessary changes.

More importantly, OIRA review is a structure that allows other White House offices and EOP units to get involved along with OIRA bureaucrats in monitoring rulemaking. For example, in the Reagan administration, the Task Force for Regulatory Relief was actively involved in OIRA review (Olson 1984). Also, in the first Bush administration, the Council for Competitiveness and the Council for Economic Advisers were involved in reviewing regulations (Blumstein 2001). Likewise, in the Clinton administration, the Council on Environmental Quality and the Council of Economic Advisers paid close attention to rulemaking (Kagan 2001).

Along the same lines, Lisa Bressman and Michael Vandenbergh document that more than 19 White House Office and EOP units were involved along with OIRA in reviewing agency rulemaking (Bressman and Vandenbergh 2006). Likewise, Sally Katzen, the administrator of OIRA for most of the Clinton years argues that OIRA and other White House units were all engaged in reviewing regulation on behalf of the president, in her own words, "we were all in it together" (Katzen 2007). Also, Donald Arbuckle, who worked at OIRA from 1981 to 2006 and served as its career Deputy Administrator from 1996 to 2006, documents that White House participation in regulatory review is routine (Arbuckle 2008). For example, White House and EOP units potentially involved in reviewing EPA rules include Council of Economic Advisers, Office of Science and Technology Policy, Council of Environmental

Quality, Domestic Policy Council, Office of the Vice-President, Office of Legislative Affairs, and the White House Counsel (Arbuckle 2008).

But monitoring rulemaking is costly. Rules that take years to write are technical and the president's agents have to work through such technicalities to identify how the provisions in a rule affect the president's policy objectives. And if necessary changes in a rule are identified during OIRA review, such changes have to be fashioned in a technocratic language. That is, if the agency adopts the required changes, parties unhappy with the rule are likely to challenge it in courts; the courts review the rule on the basis of the "hard look" review doctrine, which requires an agency to rationally justify its decisions (Breyer et. al 1998). If the provisions in a rule cannot be rationally justified, the courts will likely overturn the rule and all centralized presidential review work would be in vain.

Presidential review of rulemaking is selective and depends on the institutional resources the president allocates to the OIRA review process. But presidential resources are scarce: the president has to allocate limited White House institutional and staff resources to legislative affairs, international politics, public appearances, administration, and so on.

The president would ideally want to enact his policy agenda through legislation rather than rulemaking, because laws are more durable than regulations. But the Constitution gives the president no independent legislative capacity: the president has to bargain with congressional members to achieve his policy objectives. Bargaining with Congress, however, is difficult and requires allocation of time, staff and institutional resources (Dickinson and Lebo 2007).

A stylized fact is that over the course of a presidential administration, regardless of its partisanship, the president's influence in Congress decreases (Bond and Fleisher 1990; Mayhew 1991; Jones 1994; Krehbiel 1999; Light 1999; Grossman, Kumar, and Rourke 2000; Rudalevige 2002; Barrett and Eshbaugh-Soha 2007). Mayhew shows that on average 3.5 fewer major laws are enacted during the second two years rather during the first year of a presidential term (Mayhew 1991). Also, Paul Light notes that new legislation peaks early,

typically during an administration's first hundred days then presidential influence in Congress declines (Light 1999). Along the same line, Krehbiel finds that the start of a presidential term has a strong effect on changes in legislative productivity (Krehbiel 1999). Barrett and Eshbaugh-Soha also show that the president achieves the highest rate of legislative success during a short honeymoon period in his first year and as his term progresses he gets less and less in Congress (Barrett and Eshbaugh-Soha 2007).

The president achieves even less in Congress in his second-term. Then congressional members give the president no honeymoon period and they increasingly ignore second-term lame-duck presidents (Grossman, Kumar, and Rourke 2000). To this point, Charles Jones studies the legislative histories of twenty-one landmark laws initiated by presidents between 1947 and 1990 and second-term presidents have launched only three of these laws (Jones 1994).

In response, to such "cycle of decreasing influence" (Light 1999) in Congress, the president, regardless of his partisanship, turns to administration, a sphere in which he is formally independent of Congress' willingness to go along. The president is not going to achieve through administrative rulemaking the same he can achieve through legislation but rule-making is appealing given the president's formal control over the executive branch. More White House and EOP staff and institutional resources are available for reviewing regulation and, therefore, OIRA intervention in rulemaking likely increases with the president's time in office.

One point to note is that parties who bargain at the agency level and who will lose from a president's intervention in rulemaking might anticipate an increased presidential intervention in rulemaking. If this is the case, empirically we are likely to underestimate the effect of presidential intervention in rulemaking with the president's time in office. In the appendix, I develop a simple game-theoretic model to show that we can obtain the comparative statics result that OIRA intervention in rulemaking increases with a president's time in office even when we take into account anticipated reactions.

2 Data

To empirically analyze presidential influence on agency rulemaking, I use an original data set consisting of 1,984 economically significant reviews that OIRA had reviewed between 1981 and 2007. These rules come from executive agencies (such as Environmental Protection Agency); OIRA review does not extend to the independent agencies (such as Federal Trade Commission). An important difference between executive and independent agencies is the type of regulations they issue. Executive agencies typically issue social regulations that address environmental, health or workplace safety concerns. Independent agencies typically issue economic regulations that address price fixing, information-sharing, and market-allocation schemes (Rabin 1986).

An economically significant rule is defined as a rule that has estimated annual compliance costs of \$100 million or more. Also, since the beginning of OIRA review, each president has required agencies to accompany this type of rule with a cost-benefit analysis (or cost effectiveness analysis) and a regulatory impact analysis. The regulatory impact analysis must identify several regulatory alternatives, their estimated costs and benefits, and a justification for why a certain regulatory alternative is preferred over others.

An economically significant rule carries important distributive consequences. The decision to initiate these major regulations, or to time their implementation, is not at the discretion of a bureaucrat in the agency. First, the statutes establishing major programs of social regulation have mandated that specific actions have to be carried in specific areas (for example by listing the hazardous substance to be regulated). Also, most of the social regulation statutes contain mandatory deadlines⁴. In addition, courts have also imposed judicial deadlines on agency actions. For example, between 1988 and 2003, the Environmental Protection Agency alone faced 1,342 statutory and judicial deadlines (Gersen and O'Connell 2008).

⁴Moreover, these regulations also come with hammers: statutes specify regulatory provisions that take effect if a rulemaking is not finished by a certain date.

The agencies also have to comply with a variety of procedural and legal requirements before initiating an economically significant rule. In addition to the Administrative Procedure Act, Congress has imposed other procedural requirements on agencies conducting rulemaking. For instance, the National Environmental Policy Act requires agencies to include in their regulatory proposals a detailed environmental impact statement. The Paper Work Reduction Act requires agencies to justify the burden imposed by information collection requirements. The Regulatory Flexibility Act requires agencies to analyze the impact of their regulations on small businesses. The Unfunded Mandates Reform Act requires agencies to assess the impact of their rules on state and local governments (Lubbers 1998).

Presidents have also imposed additional procedural requirements on agency rulemaking. Beyond the cost-benefit and regulatory impact analyses, executive orders on federalism, tribal government, takings of private property, energy effects, family, environmental justice, and the protection of children from environmental health risk require agencies to analyze their rulemaking's impact in particular areas (Lubbers 1998).

These congressional and presidential procedural requirements ensure the participation of multiple bureaucrats in drafting a major rule. And since the expected compliance cost of these economically significant rules exceeds \$100 million, parties affected by these rules are likely to get involved and lobby their cause to congressional members and bureaucrats inside the agency. As a result, the bargaining over the content of economically significant rules is likely to be a costly bargain between groups and individual with different interests and policy views.

The source of these data is the Regulatory Information Services Center (RISC). RISC maintains on behalf of OIRA a computer log for the rules reviewed by OIRA since 1981. To obtain the sample of economically significant regulations, I have used RISC comprehensive log that generates the list of economically significant reviews performed by OIRA between 1981 and 2007.

Moreover, the RISC information for each rule review is sparse, but contains a crucial

piece of information: whether OIRA had or had not intervened in a rule review. For each rule in the sample, the outcome of OIRA review is one of the following categories: “consistent without change”, “consistent with change”, “returned”, “suspended”, or “withdrawn”⁵. If the OIRA outcome is “consistent without change”, it means that OIRA did not intervene at all during the review process; the rule after OIRA review is exactly the rule sent by the agency. If the outcome is not “consistent without change”, an OIRA intervention occurs.

To note one limitation of the data: The RISC coding of the category “consistent with change” contains no information on the changes made in a rule as a result of OIRA intervention. Although various public and private actors during the tenure of the Reagan-Bush administrations have sought to make publicly available the type of changes in a rule due to OIRA review, this kind of information is not publicly available mainly due to considerations of protecting the internal deliberations of the executive branch. The courts have also ruled to protect the privacy of executive branch internal deliberations. The District of Columbia in *Wolfe versus Department of Health and Human Services* held that deliberative process privilege protects “inter-agency or intra-agency memorandums and letters which would not be available to a party other than the agency in litigation with the agency” (D.C. Circuit 1988).

Dependent Variable. The dependent variable is binary and measures whether OIRA intervenes or not in a rule review: the first category consists of those reviews for which outcome is “consistent without change” and the second category consists of those reviews for which the outcome is not “consistent without change.” I code the dependent variable as 1 if an OIRA intervention occurs and 0 if no OIRA intervention occurs. The variation in OIRA intervention is the following: no intervention in 38% and intervention in 62% of the reviews performed.

The data have a multilevel structure. The unit of analysis is an OIRA review (the level at

⁵And 55% of the reviews are in the category “consistent with change”, 38% of the reviews are in the category “consistent without change”, 5% in the category “withdrawn”, 1% in the category “returned”, and 1% in the category “suspended.”

which OIRA intervention outcome is measured) but these units are clustered by agency, by the year of OIRA review outcome, and by the presidential administration in office. Moreover, years are nested within presidential administrations.

First, the rules review come from 11 executive agencies and departments⁶. These departments and agencies are: the Department of Agriculture (DOA), the Department of Transportation (DOT), the Department of the Interior (DOI), the Department of Labor (DOL), the Department of Health and Human Services (HHS), the Department of Housing and Urban Development (HUD), the Department of Energy (DOE), the Department of Commerce (DOC), the Environmental Protection Agency (EPA), the Small Business Administration (SBA), and the Social Security Administration (SSA). Some of these agencies produce more regulation than other. Figure 1 shows the proportion of rules review from each agency:

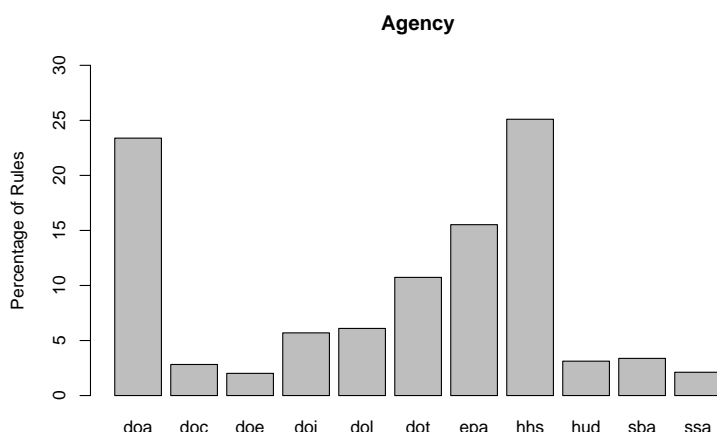


Figure 1: This figure reports the proportion of reviews (out of 1,984 reviews) from each of the 11 executive agencies.

Also, the reviews are clustered by the year of OIRA review outcome. Figure 2 shows the clustering by year:

⁶The 1984 rules reviewed in the data set represent approximately 91% of all economically significant regulations reviewed by the OIRA between 1981 and 2007. I have included all executive agencies that have had, on average, at least a rule review per year (thus at least 27 rules reviewed by OIRA since 1981) and have had a rule review during the tenure of each presidential administration in office since 1981. For example, I excluded the rules from the Department of Homeland Security, which did not exist until 2002.

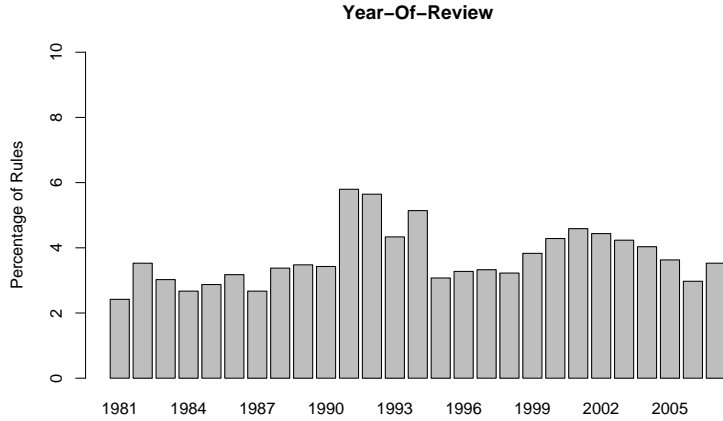


Figure 2: This figure reports the proportion of reviews (out of 1,984 reviews) from each year since 1981.

Finally, the reviews are clustered by the presidential administration in office. Four presidential administrations have been in office between 1981 and 2007, three Republican presidents: Ronald Reagan, George H.W. Bush and George W. Bush, and one Democratic president: Bill Clinton. OIRA has performed on average 59 economically significant reviews per year during the Reagan administration, 76 per year during Clinton administration, 78 per year during George W. Bush administration, and 91 per year during George H.W. Bush administration.

3 Empirical Analysis

3.1 Estimation Method

I have argued that OIRA intervention increases with the president’s time in office. I measure the president’s time in office as a discrete variable: *presidential time* that takes the value of the president’s year in office in the year of review outcome for an individual review (for example, it takes values from 1 to 8 for a two-term president)⁷.

⁷In the robustness section, I show that the analysis is robust to using an alternative measure, *presidential term*, an indicator variable that measures whether the rule is reviewed in the president’s first or second term.

To empirically analyze OIRA intervention in rulemaking, I use a latent variable transformation. That is, we have a continuous variable, but we only observe a binary variable, in our case such as whether OIRA intervenes or not in a review performed.

As mentioned, the individual observations are clustered by agency, by year, and by presidential administration. Moreover, years are clustered by presidential administration. In a preliminary analysis, I have estimated the degree of clustering by unit of aggregation. I have measured the intraclass correlation coefficient (ICC)⁸ and found that presidential administration represents the most important level of clustering, agency comes second, and year comes third. The intraclass correlation can be interpreted as the expected correlation between two randomly chosen individual units within the same group. The following table presents the result of this preliminary analysis:

Table 1: Intraclass Correlation Coefficient Estimates:

	Year	Agency	President
ICC	0.03	0.17	0.36

The table shows clearly that heterogeneity is present in the data and thus the independence assumption is violated. As a first cut it might seem reasonable to estimate a traditional fixed effect model to control for individual unit heterogeneity. However, such an approach is not feasible for these data. We need to control for both presidential administration and year heterogeneity but a model with fixed effects for both groups cannot be estimated since years are nested within presidential administrations. To take into account the nested structure in the data, I estimate a multilevel logistic regression model with presidential administration indicators and varying intercepts⁹ for the agency and year groups.¹⁰

⁸Defined as $ICC = (\text{between cluster variance}) / (\text{total variance})$ in which total variance = between cluster + within cluster variances. I calculated the intraclass correlation in an varying intercept-only model fitted in a Bayesian framework.

⁹For a discussion about this terminology see Gelman and Hill 2007.

¹⁰In the robustness section, I also estimate the model with presidential administration varying intercepts but it does not change anything since, in the estimation, we have no variables measured at the presidential administration level to reduce the variability at this level of analysis. Also, presidential administration coefficients are of substantive interest since much of the existing literature has focused on how different presidential administrations have used OIRA review to advance their goals.

I fit a Bayesian multilevel model with non-informative priors. In a multilevel model with nested and non-nested components (such as our model), we get more precise estimates using a Bayesian estimation rather than a maximum likelihood estimation (Gelman and Hill 2007). In addition, in the robustness section, I fit the model in a maximum likelihood framework and compare the results of the two estimation procedures. I provide the details of the Bayesian estimation and the WinBUGS code in the appendix. The logistic regression at the individual level data is the following:

$$Pr(y_i = 1) = \text{logit}^{-1}(\alpha_0 + \alpha_{k[i]}^{\text{agency}} + \alpha_{j[i]}^{\text{year}} + \beta_p \text{presidential administration indicators}_i + X_i \beta), \text{ for } i = 1, \dots, 1984;$$

where $k[i]$ and $j[i]$ indicate the agency and the year associated with observation i , and X is a matrix of individual-level covariates, β is the vector of coefficients for the individual-level regression, and β_p is the vector of coefficients for presidential administration indicators. The agency-level model is the following:

$$\alpha_k^{\text{agency}} \sim N(U_k \gamma, \sigma_{\text{agency}}^2); \quad k = 1, \dots, 11 \text{ indexes agency groups};$$

where U is a matrix of agency-level covariates, γ is the vector of coefficients for the agency-level regression, and σ_{agency} is the standard deviation of the unexplained agency-level errors. And the year-level model is the following:

$$\alpha_j^{\text{year}} \sim N(\beta_T \text{presidential time}_j + V_j \kappa, \sigma_{\text{year}}^2); \quad j = 1, \dots, 27 \text{ indexes year groups};$$

where V is a matrix of year-level covariates, κ is the vector of coefficients for the year-level regression, β_T is the coefficient for the presidential time variable, and σ_{year} is the standard deviation of the unexplained year-level errors.

The individual level control variables are: duration of OIRA review, rule type, and transfer regulation. The year level control variables are: presidential reelection year and presidential approval. And the agency level includes one variable: agency ideology. I describe

these control variables and how they are measured in the appendix. The results of the multilevel estimation for the average probability of OIRA intervention are the following:

–Table 2 about here–

Table 2 contains three models. The model in column 2 estimates the average probability of OIRA intervention controlling for the data structure and including only the variable of theoretical interest: presidential time. The model in column 3 includes the control variables and the model in column 4 includes both controls and interactions between the presidential time variable and presidential administration indicators.

3.2 Estimation Results

3.2.1 The Effect of Presidential Time

The variable presidential time has the expected sign and is significant at conventional levels. The model in column 2 shows that the effect of presidential time holds regardless of any other control variables. In fact there is little difference in the point estimate (and the standard error) of the presidential time variable in the model with or without control variables. For the model in column 3, holding all other variables constant to their mean values, the average probability of OIRA intervention increases by 22% for a president in the eighth year of his administration as compared to the first year of his administration.

The model in column 4 also estimates the interactions between presidential time and presidential administration indicators. I have argue that all presidents, regardless of their partisanship, are likely to turn to administration as their time in office increases. Thus we want to check whether my argument holds or whether the previous result is the product of some idiosyncrasies of a particular presidential administration. The estimation shows that the effect of presidential time is not the product of a particular presidential administration. Moreover, none of these interactions adds anything to explaining the variation in the dependent variable.

3.2.2 Presidential Administration

The coefficients for the presidential administration indicators are also of theoretical interest. Holding all other variables constant to their mean values, the average probability of OIRA intervention is 22% higher in the Clinton administration as compared to the Reagan administration. Also, the average probability of OIRA intervention is 12% higher in the Clinton administration as compared to the George H.W. Bush administration. Finally, the average probability of OIRA intervention is 25% higher during the George W. Bush administration as compared to the Clinton administration. Moreover, the differences between the Clinton and the Republican administrations are statistically significant at conventional levels.

These results show that there is no systematic correlation between OIRA intervention in rulemaking and a president's partisan affiliation: OIRA review is not a Republican instrument, as commonly presumed in the existing scholarship (Olson 1984; Percival 1991; Bagley and Revesz 2006). This finding generates additional support for the argument that OIRA review is a presidential instrument and that all presidents, regardless of their partisanship, use OIRA review to advance their rulemaking objectives (Moe and Wilson 1994; Kagan 2001).

3.2.3 Control Variables

The average probability of OIRA intervention is higher in a presidential reelection year. Holding all other variables constant at their mean values, the average probability of OIRA intervention increases 12% in a presidential reelection year. One possible explanation for this finding is the following: The president has to ask the coalition that put him in office one more time for its support. As a result, the president pays more attention to the distributive aspects of rulemaking for core constituencies in a reelection year.

Also, the average probability of OIRA intervention increases by 7% if the president's public approval increases from 40% to 60%. This empirical finding shows a connection between the public standing of a president and a president's administrative strategy. It

suggests that it might be worthwhile to investigate the mechanisms through which public approval impacts the politics of administrative rulemaking. As Cane-Wrone argues, “as a field we know little about how public relations affect administrative politics ”(Cane-Wrone 2008).

Finally, OIRA intervention increases with the salience of a rule. For one, the average probability of OIRA intervention increases if the rule review is an unfunded mandate regulation rather than a transfer regulation¹¹. The result is intuitive since agencies have more discretion in deciding the distributive consequences of unfunded mandate regulations and, therefore, intense political conflict surrounds these regulations. Also, the unfunded mandate regulations are more costly. Second, OIRA is more likely to intervene if the rule review comes from a liberal agency rather than a conservative agency¹². The finding also might capture how OIRA intervention varies with the salience of the rule review since liberal agencies issue controversial and costly social regulations. Third, OIRA is more likely to intervene if the duration of OIRA review of a rule increases. As well, this finding likely captures how OIRA intervention varies with the salience of the rule review since more complex and technical rules that take longer to review are also likely to have a bigger impact on the regulated parties.

3.2.4 Year and Agency Heterogeneity

I find little variation among the year groups after controlling for other variables: the estimated standard deviation of the unexplained year-level errors is $\sigma_{year} = 0.16$. Also, the analysis suggests that the year intercept estimates have been shrunk considerably toward the overall mean (their value is almost 0) and that there is no trend. There is almost no difference between different years in term of the average probability of OIRA intervention.

¹¹In the case of a transfer regulation, Congress specifies the costs of the rule in the budget but leaves to agencies to determine how to distribute the money. For example, Congress specifies Medicare or Medicaid costs in the budget but the HHS writes rules about who qualifies for the benefits. In the case of a unfunded mandate regulation, Congress does not specify the costs of the rule in the budget, only the statutory goals. For example, environmental regulation, or any social regulation, is an unfunded mandate regulation.

¹²I use the Clinton-Lewis index to measure agency liberalism, a time invariant score for each executive agency in the sample (Clinton and Lewis 2008).

The next figure shows the results:

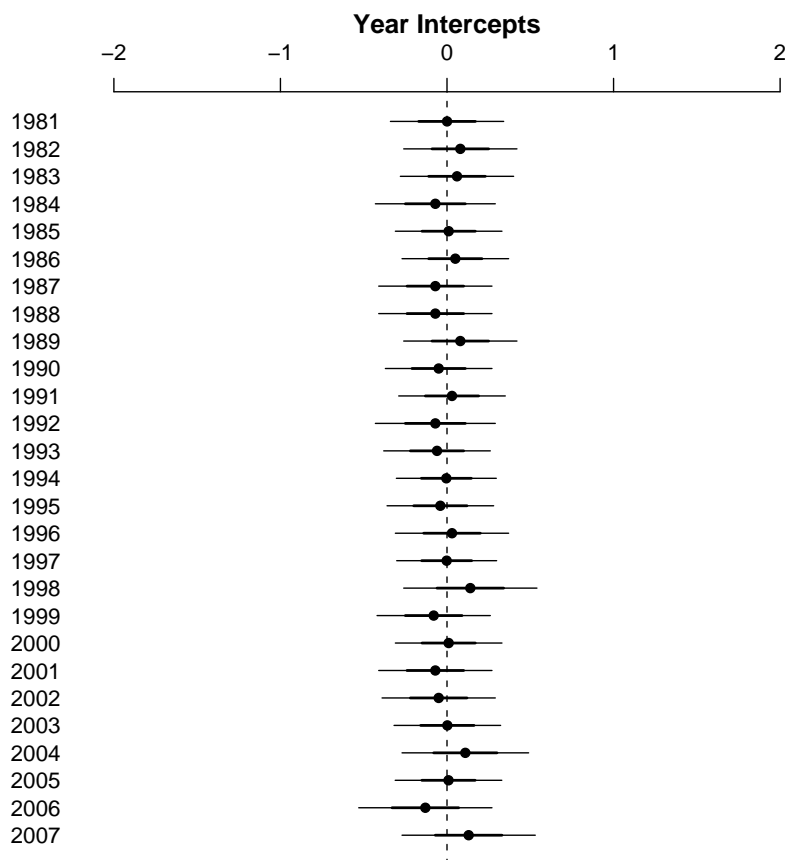


Figure 3: Estimates and 95% and 50% confidence intervals for the year intercepts estimated in the model in table 1, column 3. The estimates are on the logit scale.

Also, the estimated standard deviation of the unexplained agency-level errors is $\sigma_{agency} = 0.57$. In addition, the estimates for the agency intercepts suggest that the probability of OIRA intervention is the highest if a rule review comes from EPA as compared to any other executive agency. The results is not too surprising since the EPA issues the most costly regulations. The next figure shows the estimates for agency intercepts:

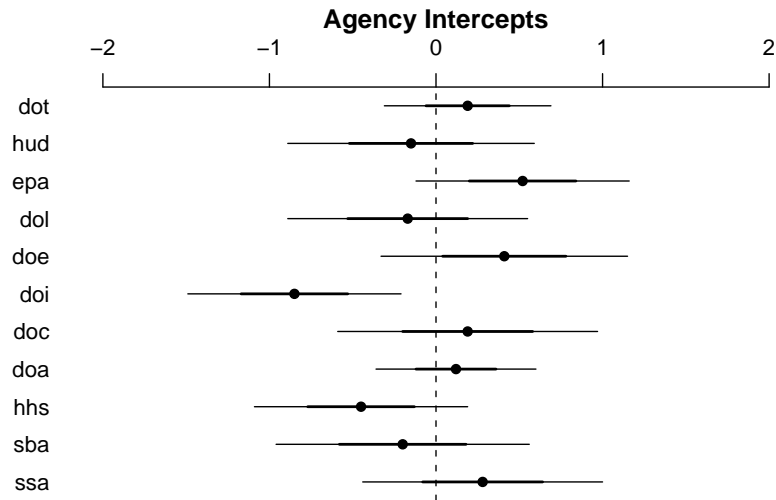


Figure 4: Estimates and 95% and 50% confidence intervals for the agency intercepts estimated in the model in table 1, column 3. The estimates are on the logit scale.

3.3 The Direction of OIRA Intervention

I have argued that OIRA is the president’s agent and as such OIRA review reflects the president’s regulatory philosophy. As mentioned, OIRA routinely interacts with other White House and EOP units. Also, the presidents have used formal ways to state their rulemaking objectives. For example, President Reagan in his executive order 12291 directed OIRA to ensure that rules review represent the least costly way to achieve statutory goals¹³. This criterion fitted with Reagan’s pro-market regulatory orientation and also with the industry and the business’s interests, which are core Republican constituencies.

On the other hand, President Clinton, a president with a pro-regulatory orientation, directed OIRA in the executive order 12868 to ensure that rules being reviewed maximize regulatory benefits and equity considerations¹⁴. Also, consistent with the President Clinton’s policies, two other executive orders asked agencies to evaluate in their regulations the health and environmental effects on minority and low-income groups and also to evaluate in their

¹³See Executive Order No. 12291

¹⁴See Executive Order No. 12866

regulations the environmental and safety effects on children¹⁵.

The RISC coding contains some additional information when OIRA intervenes in a rule review, information that allows a test for whether the direction of OIRA intervention in rulemaking varies in accordance with the president’s regulatory orientation. To estimate the direction of OIRA intervention, I exclude all reviews for which the OIRA outcome is “consistent without change” from the sample. I create a binary variable by separating the remaining reviews (about 1221 out of 1984) into two categories: the first category includes those reviews for which the OIRA intervention outcome is “consistent with change”, and the second category consists of those reviews for which the OIRA intervention outcome is “returned”, “suspended”, or “withdrawn”.

The rationale for creating this binary variable is the following: if the outcome of OIRA intervention is “consistent with change”, it means that the rule, is altered during the OIRA review process but the rule is published in the Federal Register afterward. On the other hand, if the outcome of OIRA intervention is either “returned”, “suspended”, or “withdrawn”, the rule is not published yet in the Federal Register and thus is blocked from taking legal effect.

Thus, this dichotomous variable measures whether, conditional on an intervention, OIRA blocks or not a rule from taking legal effect.¹⁶ Numerous scholars have argued that blocking a rule has an anti-regulatory orientation (Olson 1984; Percival 1991; Gatusso 2002). As such, the hypothesis is whether the average probability of OIRA intervention blocking a rule from taking legal effect is higher during the tenure of a Republican administrations as compared to a Democratic administration.

In this estimation, the variables of interest are the presidential administration indicators. I estimate a Bayesian multilevel logistic regression (with non-informative priors) that includes presidential administration indicators and varying intercepts for the agency and year groups.

¹⁵See Executive Order No. 12898 and Executive Order No. 13045

¹⁶I am interested in estimating a reduced form logit model: conditional on an OIRA intervention what is the probability that OIRA blocks a rule from publication in the Federal Register.

I code the dependent variable y_i as 1 if OIRA blocks a rule and 0 otherwise. The variation in the dependent variable is no blocking in 89% of OIRA interventions and blocking in 11% of OIRA interventions. Thus, I estimate the following model:

$$Pr(y_i = 1) = \text{logit}^{-1}(\alpha_0 + \alpha_{k[i]}^{\text{agency}} + \alpha_{j[i]}^{\text{year}} + \beta_p \text{presidential administration indicators}_i), \text{ for}$$

$$i = 1, \dots, 1221;$$

$$\alpha_k^{\text{agency}} \sim N(0, \sigma_{\text{agency}}^2); \quad k = 1, \dots, 11 \text{ indexes agency groups};$$

$$\alpha_j^{\text{year}} \sim N(0, \sigma_{\text{year}}^2); \quad j = 1, \dots, 27 \text{ indexes year groups},$$

where $k[i]$ and $j[i]$ indicate the agency and the year associated with observation i , β_p is the vector of coefficients for presidential administration indicators, σ_{agency} is the standard deviation of the unexplained agency-level errors, and σ_{year} is the standard deviation of the unexplained year-level errors. The results of estimation regarding the average probability of OIRA blocking a rule are presented in table 3:

–Table 3 about here–

The estimation shows that the average probability of OIRA blocking a rule from taking legal effect is lower during the Clinton administration as compared to any Republican administration. Moreover, the differences between the Clinton and the Republican administrations are statistically significant at conventional levels. The probability of OIRA blocking a rule is 11% higher in the Reagan administration or the George W. Bush administration as compared to the Clinton administration and 32% higher in the George H.W. Bush administration as compared to the Clinton administration. Thus, I find strong empirical evidence for the claim that OIRA is the president’s agent: the direction of OIRA intervention varies in accordance with the president’s partisanship.

Criticism of centralized presidential review, so pronounced in the Reagan-Bush era, quieted under the regulatory friendly Clinton administration (Blumstein 2001). Although President Clinton maintained centralized presidential review of regulations, most observers considered that the Clinton administration has weakened the aggressive approach to centralized

presidential oversight of administration taken in the Reagan and Bush administrations (Gattuso 2002). Our estimation shows that these arguments are correct as the average probability of OIRA blocking a rule from taking legal effect sharply drops after Clinton came to power. But the exclusive focus on the direction of the OIRA intervention in rulemaking has missed a very important aspect of centralized presidential review of rulemaking. Although the Clinton OIRA had blocked less rules, OIRA intervention in rulemaking was higher during the Clinton administration as compared to the Reagan-Bush era.

3.4 The President, Congress, and OIRA review

Another important scholarly debate in bureaucratic politics is whether the President or Congress has the upper hand in controlling the bureaucracy (McCubbins, Noll and Weingast 1987; Moe and Wilson 1994; Hammond and Knott 1996). To check whether the relationship between Congress and the President influences OIRA intervention in rulemaking, I also estimate the average probability of an OIRA intervention by including several congressional-related variables such as divided government, presidential vetoes, or whether Congress is under Republican or Democratic control. I describe these variables and how they are measured in the appendix. The results of this estimation are presented in the following table:

—Table 4 about here—

Congressional-related variables are not important in explaining the variation in OIRA intervention. The finding is not too surprising since OIRA's only client is the president and thus it is unlikely to find direct congressional influence on OIRA decisions. But even though Congress has no direct effect, Congress does have an indirect effect on OIRA intervention. I have argued that OIRA is more likely to intervene as the president's time in office increases since the president's influence in Congress decreases.

Both Congress and the president exercise control over rulemaking, but their strength varies depending on the stage in the rulemaking process. Rulemaking originates in congress-

sional statutes and, therefore, Congress determines the contours of rulemaking: the quantity of regulation, its timing, and how much discretion the agency has in writing the rule. But once Congress delegates rulemaking authority to an executive branch agency, the president likely has more influence over the content of an individual rule through OIRA review. The Government Accountability Office (GAO), the congressional watchdog states clearly this fact: “efforts to enhance presidential oversight of agencies’ rulemaking appear to have been more significant and widely employed in recent years than similar efforts to enhance congressional oversight ”(GAO 2003).

Although most of the existing literature posits the relationship between the president and Congress as a zero-sum game, the more accurate description is one in which OIRA intervention might benefits both the president and some parts of Congress (Wiseman 2007). Congress is not a unitary actor: congressional members have divergent preferences regarding rulemaking. Even if OIRA intervention reflects the president’s policy goals it does not necessarily imply that no congressional member benefits from it (Wiseman 2007). For example, congressional members with an anti-regulatory agenda benefit from OIRA intervention during the tenure of Republican presidents. Likewise, congressional members with a pro-regulatory agenda benefit from OIRA intervention during the tenure of Democratic presidents.

3.5 Robustness of the Estimation

I also estimate the multilevel model in a Maximum Likelihood (MLE) framework in order to compare the results with the Bayesian estimation¹⁷. The MLE and Bayesian estimates for the coefficients and their standard errors are similar (with the MLE giving slightly lower standard errors). However, the MLE gives significantly lower standard errors for the agency and year groups. The result is consistent with previous studies showing that MLE produces lower estimates for the group level standard error. The rationale is that with a small number of groups, there might not be enough information to estimate the group-level variances

¹⁷To do so, I use the `lmer` function of the `lme4` package in R (Bates and Sarkar 2007).

parameters precisely (Gelman and Hill 2007). The estimates for the group level variances are more reliable in the Bayesian framework. The table 5 shows the comparison between MLE and the Bayesian estimation:

–Table 5 about here–

Finally, the effect of presidential time in office on OIRA intervention in rulemaking is robust to an alternative measurement of the variable presidential time. I also measure the president’s time in office as a dichotomous variable indicating the president’s first or second term in office. Given this measure, the probability of OIRA intervention in rulemaking is 16% higher for a president in the second term as compared to a president in the first term. Also, the effect of all other control variables is unchanged. However, I prefer the initial measure since it takes into account information from the George H.W. Bush administration, a one term administration, and also takes into account the honeymoon effect during a president’s first term. The next table shows the estimate and standard error for the presidential term variable (coded 0 for the president’s first term and 1 for the president’s second term):

Table 6: Estimation for the Presidential Term:

Method of Estimation	Estimate	Standard Error
Bayesian	0.7	0.17
Maximum Likelihood	0.68	0.14

I also estimate a model with presidential administration varying intercepts, agency varying intercepts, and year varying intercepts. The results of this estimation are the same as the results of the estimation in table 2 since, in the estimation, we have no variables measured at the presidential administration level to reduce the variability at this level of analysis. In addition, I estimate a model with presidential administration and agency fixed effects. The results are similar with the ones in table 2.¹⁸

¹⁸As mentioned it is not possible to estimate fixed effects for years but this is not a problem since I have shown that there is no year heterogeneity in the data after controlling for the variables in our model. I also

4 Conclusion

In this paper, I have empirically analyzed the president's influence on agency rulemaking by using a new data set consisting of economically significant regulation reviewed between 1981 and 2007 by OIRA. I have argued that all presidents, regardless of their partisanship, use OIRA review to advance their policy objectives. The president's influence in Congress decreases over the course of his tenure, and in response, the president turns to administration. As a result, presidential intervention in rulemaking increases with the president's time in office.

Consistent with the argument, the empirical estimation shows that the average probability of OIRA intervention increases by 22% for a president in the eighth year as compared to the first year of his administration. I have also found that OIRA intervened more in rulemaking during the Clinton administration as compared to the Reagan or first Bush administration. However, conditional on an intervention, OIRA was less likely to block a rule from taking legal effect during the Clinton administration as compared to any Republican administration. These findings suggest that all presidents, regardless of their partisanship, use OIRA review to control agency rulemaking, but the direction of OIRA intervention depends on the president's regulatory orientation.

In addition, I have found that OIRA intervention is higher in a presidential reelection year, if the president's popularity is higher, and if the rule being reviewed is more salient. Moreover, congressional variables do not affect OIRA intervention in rulemaking. The empirical analysis illustrates the nature and scope of presidential intervention in rulemaking and shows that presidential variables strongly impact agency regulations.

estimate a model with presidential administration and agency fixed effects and varying intercepts for years and the results are the same as the results of the estimation in table 2.

5 Appendix 1: A Simple Model

The parties that bargain at the agency level and will lose from the president's intervention in rulemaking might anticipate increasing presidential monitoring with the president's time in office and adjust their strategy accordingly. I develop a simple game-theoretic model to take into account this logic of anticipated reactions. The model that follows is intentionally set as minimally as possible in order to illustrate a mechanism of how OIRA intervenes more in rulemaking with the president's time in office even when taking into account the logic of anticipated reactions.

Two players, a coalition C and OIRA bargain over a pie, which I normalize to size 1. The coalition C represents the bureaucrats, the interests groups, and congressional members that lose from OIRA intervention. For example, the bargaining is over an environmental regulation, the president is a Republican president who wants less stringent regulation, and the coalition C represents, say, environmentalist groups and their allies in Congress and inside the agency. Or the president is a Democratic president who want a more stringent regulation, and the coalition C represents the regulated industries and their allies in Congress and inside the agency.

In the first stage, the coalition C acquires a fraction $t \in [0, 1]$ of the pie at a cost $c(t) = \frac{1}{2} \cdot t^2$. The cost represents how much time, resources, lobbying, or effort the individuals and groups in the coalition C allocate to rulemaking bargaining.

In the final stage, OIRA acquires a fraction $p \in [0, 1]$ from the share of the pie t that the coalition C has expropriated in the previous stage. This assumption implies that, for example, OIRA intervention makes the rule more lax or more stringent, the direction depends on the ideology of president that OIRA serves. This sequence of play represents OIRA's last mover advantage.

OIRA intervention is costly and the cost is given by the function $c(p, \theta) = \theta \cdot (p^2 + p)$. The parameter θ is a function of the president's time in office. I assume that $\theta(\textit{presidential time})$

decreases with the president's time in office and, as a result, OIRA's cost for intervention decreases as well.

I solve the game by backward induction. In the last stage, for any size of the pie t that C obtains in the first stage, OIRA gets $p \cdot t$ of the pie at the cost $c(p, \theta)$ and thus OIRA's decision is:

$$\operatorname{argmax}_p \{p \cdot t - \theta \cdot (p^2 + p)\} \quad (1)$$

The solution to this maximization problem is $p(t) = \frac{t-\theta}{2\theta}$.

Now, for any t that C chooses in the first stage, its payoff is $t \cdot (1 - \frac{t-\theta}{2\theta}) - c(t)$ and thus its decision is:

$$\operatorname{argmax}_t \{t \cdot (1 - \frac{t-\theta}{2\theta}) - \frac{1}{2} \cdot t^2\} \quad (2)$$

The solution to this maximization problem is $t^* = \frac{3\theta}{2\theta+2}$. Also, OIRA's equilibrium choice is $p^* = \frac{1-2\theta}{4\theta+4}$. And we can see that depending on how θ impacts the intervention cost, OIRA might or might not intervene in a rule review, that is $p(t) \gtrless 0$. We have the following result:

Proposition. *The game has a unique subgame perfect Nash equilibrium. In equilibrium the optimal actions are: $t^* = \frac{3\theta}{2\theta+2}$ and $p^* = \frac{1-2\theta}{4\theta+4}$.*

For one, t^* increases in θ and thus t^* decreases with the president's time in office. Substantively, the observable implication is that in anticipation of OIRA's decreasing intervention cost, the rule that comes from the agency is more conservative if OIRA serves under a conservative president. And likewise, the rule that comes from the agency is more liberal if OIRA serves under a liberal president.

Moreover, p^* decreases in θ , and thus p^* increases with the president's time in office. Substantively, the observable implication is that OIRA intervenes more in rulemaking as the president's time in office increases.

6 Appendix 2

6.1 Variables Included in the Estimation

I include the following variables in estimations:

Presidential Administration Indicators. I include a set of dummy variables for each presidential administration in office since 1981: Ronald Reagan, George H.W. Bush, Bill Clinton, and George W. Bush administration. **Agency Ideology:** This variable is the Clinton-Lewis scores of agency liberalism, a time invariant index. Higher values imply a more conservative agency (Clinton and Lewis 2008). This variable is measured at the agency level. **Presidential Approval:** This variable measures the presidential public approval in a year using the Gallop rating. **Proposed Rule:** This is a dummy variable that takes the value 1 if the rule review is a proposed rule and the value 0 if the rule review is a final rule. **Duration of OIRA Review:** This variable measure the number of days since a rule was sent to OIRA until OIRA completed the review. **Transfer Regulation:** This is a dummy variable and takes the value 1 if the rule review is a transfer regulation and the value 0 if the rule review is an unfunded mandate regulation. In the case of a transfer regulation, Congress specifies the costs of the rule in the budget but leaves to the agencies to determine how to distribute the money. In the case of a unfunded mandate regulation, Congress has not specify the costs of the rule in the budget, only the statutory goals.

Congressional-related variables. In the estimation in table 4, I use the following additional variables, all measured at the year level. **Presidential Vetoes:** This variable measures the numbers of vetoes the president issues in the year of the outcome of OIRA review. **Divided Government:** This variable takes the value 0 if divided government exists and the value 1 if the same party controls both the White House and Congress. **Opposite Party Control:** This variable takes the value 1 if Congress is controlled by one party and the Presidency by the other party and the value 0 otherwise. **Democratic Control:** This variable takes the value 1 if both Congress and the Presidency are controlled by the

Democratic party and the value 0 otherwise. **Republican Control:** This variable takes the value 1 if both Congress and the Presidency are controlled by the Republican party and the value 0 otherwise.

Table 7: Descriptive Statistic for the Variables in the Models

Variable	Mean	Standard Deviation	Min	Max
OIRA Intervention	0.38	0.49	0	1
Presidential Time	3.95	2.18	1	8
Presidential Reelection Year	0.16	0.36	0	1
Ronald Reagan	0.23	0.43	0	1
George H.W. Bush	0.18	0.39	0	1
Bill Clinton	0.3	0.46	0	1
George W. Bush	0.27	0.45	0	1
Duration of OIRA review	42	56	1	784
Proposed Rule	0.48	0.5	0	1
Agency Ideology	-0.5	0.84	-1.43	1.25
Presidential Approval	55	11	33	72
Transfer Regulation	0.4	0.5	0	1
Presidential Vetoes	5.91	6	0	21
Divided Government	0.24	0.43	0	1
Opposite Party Control	0.49	0.5	0	1
Republican Control	0.15	0.36	0	1
Democratic Control	0.09	0.29	0	1

6.2 Bayesian Model and WinBUGS code

I estimate the multilevel Bayesian logistic model in WinBUGS. I assign non-informative priors to the regression coefficients and the hyperparameters. The regression coefficients are

given normal prior distributions with mean 0 and standard deviation 100 (and thus they have inverse-variance $\frac{1}{100^2} = 10^{-4}$). This states that we expect these coefficients to be in the range $(-100, 100)$ and if the estimates are in this range the prior distribution provide little information in the inference. For example, the WinBUGS code for the prior distribution for the presidential time variables is written as:

$$b.presidential.time \sim dnorm(0, .0001).$$

Also, I define the inverse-variances, τ_{agency} and τ_{year} in terms of the standard deviation hyperparameters.: σ_{agency} and σ_{year} . The standard deviations for the two groups are given uniform prior distributions on the range $(0, 100)$. For example, the WinBUGS code for the prior distribution of σ_{year} is:

$$sigma.year \sim dunif(0, 100).$$

The model is on the logit scale and thus constraining the absolute values of the group level standard deviations to be less than 100 is not informative. The full WinBUGS code for the model estimated in table 2 column 3 is the following:

```

model{
  for (i in 1 : n){
    y[i]~ dbern(p[i])
    logit(p[i])← mu[i]
    mu[i]← b.0+b.presidential.approval*approval[i]+b.presidential.time*presidential.time[i]+
    b.presidential.reelec*reelec[i]+b.reagan*reagan[i]+b.bush1*bush1[i]+b.bush2*bush2[i]+
    b.transfer.regulation*transfer[i]+b.duration.of.OIRA.review*duration[i]+b.proposed.rule*
    proposed[i] + b.agency.ideology * agency.ideology[i] + b.year[year[i]] + b.agency[agency[i]].

    b.0~ dnorm(0, .0001)
    b.presidential.approval~ dnorm(0, .0001)
  }

```

```

b.presidential.time~ dnorm(0, .0001)
b.presidential.reelec~ dnorm(0, .0001)
b.reagan~ dnorm(0, .0001)
b.bush1~ dnorm(0, .0001)
b.bush2~ dnorm(0, .0001)
b.transfer.regulation~ dnorm(0, .0001)
b.duration.of.OIRA.review~ dnorm(0, .0001)
b.proposed.rule~ dnorm(0, .0001)
b.agency.ideology~ dnorm(0, .0001)

for(j in 1 : J){b.agency[j]~ dnorm(0, tau.agency)}
for(j in 1 : T){b.year[j]~ dnorm(0, tau.year)}

tau.agency← pow(sigma.agency, -2)
tau.year← pow(sigma.year, -2)
sigma.agency~ dunif(0, 100)
sigma.year~ dunif(0, 100)
.

```

I run three parallel chains, each chain with 11,000 simulations. For each chain, I discard the first 1000 simulations and thus the inferences are based on approximately 30,000 iterations. The chains have mixed well and also they have converged, the potential scale reduction factor, \widehat{R} is less than 1.1 for all parameters.

References

- [1] Arbuckle, Donald. 2008. OIRA and Presidential Regulatory Review: A view from Inside the Administrative State. working paper.

- [2] Bagley, Nicholas and Richard Revesz. 2006. Centralized Oversight of the Regulatory State. 106 Columbia Law Review.
- [3] Balla, Steven. 1998. Administrative procedures and political control of the bureaucracy. American Political Science Review 92(3): 663.
- [4] Balla, Steven and John R. Wright. 2001. Interest Groups, Advisory Committees, and Congressional Control of the Bureaucracy. American Journal of Political Science. 45 (4): 799-812.
- [5] Barrett, Andrew and Matthew Eshbaugh-Soha. 2007. Presidential Success on the Substance of Legislation. Political Research Quarterly 60 (March): 100-112.
- [6] Bates Douglas and Deepayan Sarkar. 2007. lme4: Linear Mixed-Effects Models Using S4 Classes. R package version 0.9975-12, URL <http://CRAN.R-project.org/>.
- [7] Blumstein, James. 2001. Regulatory Review by the Executive Office of the President: An Overview and Policy Analysis of Current Issues. 51 Duke Law Journal 3
- [8] Bond, Jon, and Richard Fleisher. 1990. The president in the legislative arena. Chicago: University of Chicago Press.
- [9] Bressman, Lisa Schultz and Michael P. Vandebergh. 2006. Inside the Administrative State: A Critical Look at the Practice of Presidential Control, 105 Michigan Law Review 47.
- [10] Breyer, Stephen. 1982. Regulation and Its Reform, Cambridge, Harvard University Press.
- [11] Breyer, Stephen, Richard Stewart, Cass R. Sunstein, and Matt Spitzer. 1998. Administrative Law and Regulatory Policy: Problems, Text, and Cases, Fourth Edition, Aspen Publishers.

- [12] Canes-Wrone, Brandice. 2008. Administrative Politics and the Public Presidency. Forthcoming. *Presidential Studies Quarterly*
- [13] Clinton, Joshua and David Lewis. 2008. Expert Opinion, Agency Characteristics, and Agency Preferences. *Political Analysis* 16(1):3-20
- [14] Croley, Seven. 2003. White House Review of Agency Rulemaking: An Empirical Investigation. *The University of Chicago Law Review*, 70(3): 821-885.
- [15] Dickinson, Matthew and Matthew Lebo. 2007. Reexamining the Growth of the Institutional Presidency, 1940-2000. *Journal of Politics*, 69(1): 206-219
- [16] Epstein, David and Sharyn O'Halloran. 1999. *Delegating Powers: A Transaction Cost Politics Approach to Policy Making Under Separate Powers*. Cambridge University Press, 1999.
- [17] Executive Order No. 12,291 pmb., 3 C.F.R. 127, (1982).
- [18] Executive Order No. 12,498 pmb., 3 C.F.R. 323, (1986).
- [19] Executive Order No. 12,612 pmb., 3 CFR, 252, (1987)
- [20] Executive Order No. 12630, 53 FR 8859, (1988)
- [21] Executive Order No. 12606, C.F.R, (1987).
- [22] Executive Order No. 12,866, 3 C.F.R. 638 (1994).
- [23] Executive Order No. 13045, 62 C.F.R,19 885, (1997).
- [24] Executive Order No. 12898, 24 C.F.R ,58.5 (1994).
- [25] Fiorina, Morris P. 1982. Legislative Choice of Regulatory Forms: Legal Process or Administrative Process? *Public Choice* vol.39 no.2.

- [26] General Accounting Office. 2003. Rulemaking: OIRA's Role in Reviews of Agency' Drafts Rules and the Transparency of those Reviews.
- [27] Gersen, Jacob and Anne Joseph O'Connell. 2008. Deadlines in Administrative Law. 156 University of Pennsylvania Law Review 923.
- [28] Golden, Marrisa. 1998. Interest Groups in Rulemaking Process: Who Participates? Where Voices Get Heard? *Journal of Public Administration Research and Theory* 8.
- [29] Grossman, Michael, Martha Kumar , and Francis Rourke. 2000. Second-Term Presidencies: The Aging of Administrations, in *The Presidency & The Political System*, ed. Michael Nelson, pp. 223-246.
- [30] Hammond, Tommas and Jack Knott. 1996. Who Controls the Bureaucracy?: Presidential Power, Congressional Dominance, Legal Constraints, and Bureaucratic Autonomy in a Model of Multi-Institutional Policymaking. *Journal of Law, Economics, and Organization*, 12(1): 119-166
- [31] Harter, Philip. 1982. Negotiating Regulations: A Cure for Malaise. 71 *Georgetown Law Journal* 17
- [32] Heclo, Hugh. 1977. *A Government of Strangers: Executive Politics in Washington*. Brookings Institution.
- [33] Jones, Charles. 1994. *The presidency in a separated system*. Washington, DC: Brookings Institution Press.
- [34] Kagan, Elena. 2001. 114 *Presidential Administration*, *Harvard Law Review* 2245
- [35] Katzen, Sally. 2007. A Reality Check on An Empirical Study: Comments on "Inside the Administrative State", 105 *Michigan Law Review* 1497.
- [36] Kerwin, Cornelius. 2003. *Rulemaking: How Government Agencies Write Law and Make Policy*. Congressional Quarterly Press.

- [37] Kerwin, Cornelius, and Scott Furlong. 1992. Time and Rulemaking: An Empirical Test of Theory. *Journal of Public Administration Research and Theory*, 2(2): 113-138.
- [38] Krehbiel, Keith. 1998. *Pivotal Politics*. Chicago, The University of Chicago Press.
- [39] Lessig, Laurence and Cass Sunstein. 1994. The President and the Administration. 94 *Columbia Law Review* 1
- [40] Lewis, David. 2008. *The Politics of Presidential Appointments*. Princeton, Princeton University Press.
- [41] Light, Paul C. 1999. *The President's Agenda: Domestic Policy Choice from Kennedy to Clinton* Johns Hopkins University Press.
- [42] Lubbers, Jeffrey. 1998. *A Guide to Federal Agency Rulemaking*. Chicago, American Bar Association.
- [43] Mayhew, David R. 1991. *Divided we govern: Party control, lawmaking, and investigations, 1946-1990*. New Haven, CT: Yale University Press.
- [44] McCubbins, Mathew D., Roger Noll and Barry Weingast. 1987. Administrative Procedures as Instruments of Political Control. *Journal of Law, Economics, and Organization* 3: 243-7
- [45] McGarity, Thomas O. McGarity. 1987. Presidential Control of Regulatory Agency Decision-making. 36 *American University Law Review* 443.
- [46] Moe, Terry. 1982. Regulatory Performance and Presidential Administrations. *American Journal of Political Science*. May.
- [47] Moe, Terry. 1984. Control and Feedback in Economic Regulation: The Case of the NLRB. *American Political Science Review* 79(4): 1094-1116.

- [48] Moe, Terry and Scott A. Wilson. 1994. Presidents and the Politics of Structure. *Law and Contemporary Problems* 57(1): 1-44.
- [49] Morrison, Alan B. 1986. OMB Interference with Agency Rulemaking: The Wrong Way to Write A Regulation, 99 *Harvard Law Review* 1059.
- [50] DeMuth, Christopher C. and Douglas H. Ginsburg. 1986. White House Review of Agency Rulemaking. 99 *Harvard Law Review* 1075.
- [51] Nathan, R.P. 1983. *The Administrative Presidency*. Wiley.
- [52] Office of Information and Regulatory Affairs. 2008. Letter from Susan Dudley, OIRA administrator to Hon, Stephen L. Johnson, Administrator, Environmental Protection Agency, March 12, 2008, available at <http://www.reginfo.gov/public/jsp/EO/postReviewLetters.jsp>.
- [53] Olson, Erik D. 1984. The Quiet Shift of Power: Office of Management & Budget Supervision of Environmental Protection Agency Rulemaking under Executive Order 12,291. *Virginia Journal of Natural Resources* 4: 1
- [54] Percival, Robert V. 1991. Checks without Balance: Executive Office Oversight of the Environmental Protection Agency. 54 *Law and Contemporary Problems* 127
- [55] Pildes, Richard and Cass R. Sunstein. 1995. Reinventing the Regulatory State. 62 *University of Chicago Law Review* 1.
- [56] Rabin, Robert. 1986. Federal Regulation in Historical Perspective. 38 *Stanford Law Review* 1189.
- [57] Rudalevige, Andrew. 2002. *Managing the president's program: Presidential leadership and legislative policy formation*. Princeton, NJ: Princeton University Press.
- [58] Rourke, Francis. 1969. *Bureaucracy, Politics, and Public Policy*, Boston, Little Brown and Company.

- [59] West, William. 1988. The Growth of Internal Conflict in Administrative Regulation. *Public Administration Review*, 48(4): 773-782.
- [60] Wiseman, Alan. 2006. Delegation and Positive Sum Bureaucracies. working paper.
- [61] Wilson, James. 1989. *Bureaucracy: What Government Agencies Do and Why They Do It*. New York. Basic Books, Inc., Publishers.
- [62] Wood, B. Dan. 1988. Bureaucrats, Principals, and Responsiveness in Clean Air Enforcements. *American Political Science Review* 82(1): 215-34
- [63] Wood, B. Dan and Richard W. Waterman, The Dynamics of Political Control of the Bureaucracy. *American Political Science Review* 85 (1991), 801-828
- [64] Wood, B. Dan and Richard W. Waterman. 1994. *Bureaucratic Dynamics: The Role of Bureaucracy in a Democracy*. Boulder, CO: Westview Press.
- [65] Wood, B. Dan, and Miner P. Marchbanks, III. 2007. What Determines How Long Political Appointees Serve? *Journal of Public Administration Research and Theory*, doi: 10.1093/jopart /mum019.

Table 2: OIRA Intervention in Agency Rulemaking 1981-2007

Dependent Variable: Pr(OIRA Intervention =1)			
	(1)	(2)	(3)
Presidential Time	0.16*** (0.03)	0.16*** (0.03)	0.15*** (0.06)
Presidential Administration			
Bill Clinton	Omitted Indicator	Omitted Indicator	Omitted Indicator
Ronald Reagan	-1.34*** (0.22)	-1.00*** (0.18)	-0.67** (0.38)
George H.W. Bush	-0.55*** (0.21)	-0.51*** (0.21)	-0.47 (0.61)
George W. Bush	0.73*** (0.25)	1.25*** (0.19)	0.71 (0.53)
Control Variables			
Transfer Regulation	-	-0.65*** (0.16)	-0.65*** (0.16)
Agency Ideology	-	-0.62*** (0.2)	-0.62*** (0.2)
Presidential Reelection Year	-	0.44** (0.2)	0.54** (0.22)
Presidential Approval	-	0.01* (0.007)	0.02* (0.01)
Proposed Rule	-	0.17 (0.12)	0.17 (0.12)
Duration of OIRA review	-	0.02*** (0.002)	0.02*** (0.002)
Interactions			
Reagan & Presidential Time	-	-	-0.06 (0.07)
George H.W. Bush & Presidential Time	-	-	-0.04 (0.17)
George W. Bush & Presidential Time	-	-	0.15 (0.13)
Constant	-1.39*** (0.52)	-1.48*** (0.5)	-2.00*** (0.61)
N	1984	1984	1984

Note: Standard errors are given in parentheses. * Significant at the .10 level; ** significant at the .05 level; *** significant at the .01 level (two tail test).

Table 3: The Direction of the OIRA Intervention in Rulemaking

Dependent Variable: Pr(OIRA Blocking a Rule =1)		
	Estimate	S.E.
Presidential Administration		
Bill Clinton	Omitted Indicator	Omitted Indicator
Ronald Reagan	0.98**	0.53
George H.W. Bush	2.12***	0.57
George W. Bush	1.06**	0.52
Constant	-3.11***	0.51
N	1221	

* Significant at the .10 level; ** significant at the .05 level; *** significant at the .01 level (two tail test).

Table 4: OIRA Intervention in Rulemaking and Congress

Dependent Variable: Pr(OIRA Intervention =1)					
	(1)	(2)	(3)	(4)	(5)
Presidential Time	0.16*** (0.04)	0.15*** (0.04)	0.15*** (0.05)	0.16*** (0.03)	0.14*** (0.04)
+ the other control variables and interactions estimated in table 2					
Presidential Vetoes	-0.007 (0.02)	-	-	-	-
Divided Government	-	0.08 (0.23)	-	-	-
Opposite Party Control	-	-	0.08 (0.26)	-	-
Republican Control	-	-	-	0.03 (0.3)	-
Democratic Control	-	-	-	-	-0.23 (0.34)
Constant	-1.39*** (0.52)	-1.35*** (0.64)	-1.48*** (0.52)	-1.47*** (0.52)	-1.16** (0.65)
N	1984	1984	1984	1984	1984

Note: Standard errors are given in parentheses. * Significant at the .10 level; ** significant at the .05 level; *** significant at the .01 level (two tail test).

Table 5: Comparison between Bayesian and MLE Estimation

Dependent Variable: Pr(OIRA Intervention =1)		
	Bayesian Estimation	MLE Estimation
Presidential Time	0.16*** (0.03)	0.15*** (0.03)
Presidential Administration		
Bill Clinton	Omitted Indicator	Omitted Indicator
Ronald Reagan	-1.00*** (0.18)	-0.99*** (0.15)
George H.W. Bush	-0.51*** (0.21)	-0.51*** (0.17)
George W. Bush	1.25*** (0.19)	1.22*** (0.16)
Control Variables		
Transfer Regulation	-0.64*** (0.16)	-0.63*** (0.15)
Agency Ideology	-0.62*** (0.2)	-0.61*** (0.15)
Presidential Reelection Year	0.44** (0.2)	0.42** (0.17)
Presidential Approval	0.01* (0.007)	0.01* (0.006)
Proposed Rule	0.17 (0.12)	0.16 (0.11)
Duration of OIRA review	0.02*** (0.002)	0.02*** (0.002)
Group Level Variance		
σ_{agency}	0.57 (0.2)	0.4
σ_{year}	0.13 (0.1)	0.000023
Constant	-1.48*** (0.5)	1.5*** (0.4)
N	1984	1984

Note: Standard errors are given in parentheses. * Significant at the .10 level; ** significant at the .05 level; *** significant at the .01 level (two tail test).