Uncovering Presidential Bias toward Regulators: A Methodological Framework and an Application to Agency Politicization*

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Abstract

In this paper, I use a behavioral model of strategic auditing between a president and an agency to motivate a statistical methodology that uncovers the degree to which presidents exhibit a bias toward reviewing regulatory proposals from certain agencies. The method yields estimates both of a partisan, or ideological, bias, as well as a non-partisan bias, or bias that is shared irrespective of the president's party. I use the estimates to make two contributions. I first show that the dimension of ideological conflict in regulatory policymaking is largely driven by a conservative bias toward auditing health, safety and environmental regulation and a liberal bias toward agencies with close ties to industry. My second contribution is to use the estimates to draw attention to the relationship between regulatory auditing and politicization in the agencies. I find that *liberal* agencies, by my measure, have more appointees during Republican administrations and that *conservative* agencies have more appointees during Democratic administrations. Furthermore, I find that agencies subject to a non-partisan bias, again by my measure, are politicized more on average by both parties. Stepping back, the findings suggest that regulatory review (from which my estimates of ideological bias are derived) and politicization are potentially complements, whereby presidents deploy both strategies in tandem to manage troublesome agencies.

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1 Introduction

The demands for complexity and expertise in modern democracies require that lawmaking—once the exclusive domain of the legislature—be conducted overwhelmingly by regulatory agencies. While regulators may bring necessary tools to the lawmaking process, their inclusion has hardly been a panacea for politicians concerned with policy outcomes. Presidents in particular have persistently wrangled with agencies over the use and interpretation of delegated authority, as evidenced in high-profile controversies during President Reagan's strained relationship with the Environmental Protection Agency and the Federal Trade Commission (Harris and Milkis 1996), and President Nixon's efforts to bring agencies like the former Department of Health, Education and Welfare under an unprecedented level of political control (Nathan 1975). The history of contentious politics between regulators and the political branches raises a fundamental question about the extent to which particular agencies are constantly in conflict with their overseers, or whether conflict simply ebbs and flows with changes in the governing party.

The existing literature has shed light on this question by demonstrating that agencies appear to have distinct policy preferences—and perhaps even ideological orientations—that are driven by myriad considerations including the relevant policy area (Aberbach and Rockman 1976), idiosyncratic goals of careerist entrepreneurs (Carpenter 2001), the influence of appointees (Clinton, Bertelli, et al. 2012) and more intractable features concerning the agency's mission, enacting political coalition and enduring statutory authority (Clinton and Lewis 2008; Gilmour and Lewis 2006). However, existing studies of the tensions agencies have with their political overseers typically focus on narrow intervals of time (e.g. Harris and Milkis (1996)), often sidestepping counterfactual questions about how a different presidential administration, for example, would treat the same agency, or how that agency would shift behavior under a different administration.

In this paper, I analyze over-time patterns of conflict between presidents and regulatory agencies. I introduce a method for approximating an evolving preference gap between presidents and agencies by leveraging information about the proportion of an agency's annual regulatory agenda that is redirected to the White House for political review. I show how the same agency can be subjected to different (or similar) levels of White House scrutiny across presidential administrations. Underpinning the analysis is the fact that regulatory agencies collectively write many more policy proposals than presidents and their staff can realistically review. Therefore, like the Internal Revenue Service auditing tax payers (Reinganum and Wilde 1985) or the Supreme Court granting cert (Cameron, Segal, and Songer 2000), presidents resort to selectively reviewing only a subset of regulatory proposals put forward each year.

To motivate my method for approximating the preference gap between presidents and agencies, I start with a behavioral model of auditing. In equilibrium, a president is more likely to audit an agency that is distant from the president in an ideological sense, or that develops policies with insufficient levels of quality, or valence, relative to the preferences of the president.[1] Auditing is thus a mechanism for reigning in both ideological "drift" and bureaucratic "shirking." Because auditing is costly for the president, it is deployed sparingly. Presidents only find it worthwhile to audit a regulatory proposal when the severity of expected drift or shirking is sufficiently large, which occurs probabilistically in the model.

A key implication of the model is that an observed *audit rate*, or the proportion of an agency's regulatory proposals that is redirected to the White House for review each year, should provide information about the preference gap (related to either drift or shirking) between the White House and the agency. Using data from the Clinton and George W. Bush administrations, I calculate audit rates for all regulatory agencies that are subject to White

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[1]The valence dimension, as in Hirsch and Shotts (2012) for example, is assumed to be orthogonal to the policy dimension.

House review. By comparing audit rates from two different presidential administrations, I estimate the extent to which the same agency is targeted at different rates. By comparing two administrations I am also able to disentangle features of an agency that may induce audits but have little to do with partisan bias (e.g. low levels of competence and professionalism).[2] For each agency, the approach recovers an estimate of *partisan* bias, or the extent to which presidents of different parties treat the same agency differently, as well as an estimate *non-partisan* bias, or bias that presidents have toward the agency irrespective of their party.

Some advantages of the method include:

(1) It is derived from a theoretical model of behavior

(2) It can be easily replicated for new administrations

(3) It can recover bias estimates for any agency subject to White House review

(4) It implicitly incorporates information about the influence of appointees and careerists

(5) It can reliably recover estimates at the *bureau* level, not just at the department level

To preview the results, the recovered estimates show that health, safety and environmental regulators tend to be relatively liberal. In contrast, more conservative agencies tend to be those that have the potential to benefit specific industries, such as the Minerals Management Service for the extractive industries, or the General Services Administration for manufacturers and other suppliers of government wares. By and large, the estimates confirm anecdotal

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[2]Furthermore, the proposed method also separates out the effect of any rule-specific variable (e.g. economic significance, year of proposal etc.) that may also influence a president's decision to audit a rule, but have little to do with any particular bias toward the agency. For example, both liberal and conservative administrations may want to audit economically significant proposals because the stakes from getting such regulations "correct" (i.e. preventing errors) are sufficiently high.

suspicions that Democratic administrations have been relatively more supportive of social regulation whereas Republican administrations have been more supportive of business interests. Another way to interpret the results is that liberal agencies tend to represent diffuse interests such as workers, in the case of the Occupational Safety and Health Administration (OSHA), or individuals exposed to pollutants in the case of the Environmental Protection Agency. More conservative agencies tend to represent concentrated interests, like the extractives industry mentioned above or the aerospace industry in the case of NASA and the agribusiness in the case of the Agriculture Department's Farm Service Agency. I discuss these implications more in the sections below.

In order to provide additional external validity to the results, and to probe existing theories of politicization in regulatory agencies, I also analyze the relationship between the recovered measures of bias, both partisan and non-partisan, and the degree of politicization in the agencies. Consistent with an ally principle view of politicization, I find that the number of Schedule C appointees are increasing in agencies where there exists a larger partisan bias with the president. I also find that agencies with high levels of non-partisan bias, or bias that is shared by both parties, have more Schedule C appointees than other agencies. Among other implications, the results suggest that regulatory review and politicization, in practice at least, are complementary strategies rather than substitutes.

This paper contributes to an evolving literature on the measurement of agency ideal points.[3] Some approaches use surveys to either ask experts how they would characterize an agency's ideological orientation (Clinton and Lewis 2008) or ask bureaucrats how they

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[3]I use the term "agency ideal points" loosely here. As will become clear, my estimates of *partisan bias* do not recover agency ideal points, which exist in my theoretical model, but are unidentified in my estimation strategy. Under minimal assumptions, however, my estimates of partisan bias are correlated with the ideal points. See Figure 3 and the related discussion.

would vote on a particular bill pending in Congress (Clinton, Bertelli, et al. 2012). Nixon (2004) looks at instances where an agency head also served as a member of Congress to "bridge" the ideology of the agency. Other methods infer the ideological preferences of bureaucrats by relying on actual behavioral patterns, such as prior campaign contributions by bureaucrats (Chen and Johnson 2014; Bonica, Chen, and Johnson 2012) or public statements from congressional testimony (Bertelli and Grose 2011).

While other behavioral models of agency ideology exist, the approach I outline here is arguably unique in that the estimates of agency "ideology" are derived from behavior that is actually connected to the policy-making activities of the agencies[4]. Due to its behavioral foundations, my method is not unlike existing approaches for estimating ideal points for legislatures, which are theoretically grounded in a random utility model where lawmakers choose between the status quo and an alternative (Poole and Rosenthal 2000). The institutional setting in regulatory politics is, of course, unique and I do not have data on votes but rather on a president's decision of whether or not to subject an agency's regulatory proposal to White House review.[5]

2 Background

2.1 Measuring Agency Ideology

Measuring agency ideal points is an active research area and there are several recent papers that offer summaries of the literature. See, for example, Clinton, Bertelli, et al. (2012) and

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[4]Though see Snyder and Weingast (2000) who focus on estimating the ideal points of commissioners based on their votes.

[5]Due to the data structure I analyze, my estimation strategy does not require the use of item-response theory.

Bonica, Chen, and Johnson (2012). My focus in this section is not to review the literature, but instead to emphasize one important aspect of estimating agency ideal points that still presents challenges. Critical to measuring agency ideology is to account for the preferences of both appointees and careerists and their shared influence in the development of policy.[6] Some measures have focused on only one or the other, while other measures have developed estimates for both. These latter approaches have been particularly innovative, but have struggled with how to weight the relative influence of appointees and careerists. In this paper, I sidestep this problem by implicitly using information about the combined contributions of both appointees and careerists, albeit without disentangling their individual contributions.

Table 1 summarizes the existing approaches, starting with the most recent, and includes a checkmark next to each to denote whether or not information about appointees, careerists or both are included in the measure. While the more recent studies include measures of bureaucrats and appointees, they leave open questions about how much of an agency's combined ideology can be attributed to one or the other. Clinton, Bertelli, et al. (2012) recognize this roadblock and develop of measure of agency ideology that weights the relative influence of careerists and appointee by perceptions within the agency about the relative influence of each. The studies that estimate agency ideal points using the campaign contributions face the same roadblock, but do not propose any solutions. This is less problematic for Bonica, Chen, and Johnson (2012), who focus their empirical setting on appointee ideology alone. Chen and Johnson (2014), however, incorporate information about both careerists and appointees without accounting for which group wields more influence in policymaking.[7]

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[6]See McGarity (1991) for survey study on the combined influence of careerists and appointees in the development of EPA regulations.

[7]They do put more weight on contributors that give more money, based on a conjecture that this would reflect higher salaries and thus capture upper-level careerists *and* appointees (i.e. the decion-makers in the agency).

Using audit rates to estimate agency ideology may offer a remedy in some applications. The audit rates that I estimate inherently provide information about the preference divide between the White House and the agency, inclusive of the influence of both careerists *and* appointees. On the downside, however, I cannot disentangle the relative influence of appointees, which likely vary within and between agencies as the number of appointees change and their ability to exert influence is conditional on the policy area at hand. For many applications, however, the quantity of interest concerns only agency preferences, not the disaggregated preferences of appointees and careerists. For these applications, the approach I outline here is arguably at an advantage.

2.2   Rulemaking

My approach for developing estimates of bias focus on the *rulemaking* process, which is the formal process by which agencies develop legally-binding regulations, or rules. While agencies develop rules according to the procedures defined in the Administrative Procedures Act of 1946, the most relevant procedure here was actually put in place by executive order during the Reagan administration. Since the Reagan administration, regulations proposed by executive branch agencies have been subject to review by the White House, where the president's Office of Information and Regulatory Affairs (OIRA) can effectively revise or veto agency policies.[8]

Due to the focus on rulemaking and regulatory review, estimates of bias are only avail-

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[8]My analysis here is focused on president Clinton's 1993 Executive Order 12,866 and its successors since these all empower OIRA to *selectively* audit rules. The predecessor executive orders to 12,866 required OIRA to review all rules, thus any "auditing," or OIRA's selective attention to particular rules, is undetectable to the empirical researcher. For a detailed overview of the rulemaking process see Copeland (2005).

	Description of Approach	Incorporates Appointees?	Incorporates Bureaucrats?
1	This paper: I compare agency audit rates across administrations	✓	✓
2	Both Chen and Johnson (2014) and Bonica, Chen, and Johnson (2012) scale the campaign contributions of agency employees	✓	✓
3	Clinton, Bertelli, et al. (2012) survey agency employees and ask them how they would have voted on legislation passed in a previous Congress	✓	✓
4	Bertelli and Grose (2011) use political appointees' congressional testimony that references legislative bills as a "vote" for or against the legislation and then scale the votes	✓	
5	Clinton and Lewis (2008) use IRT on a survey of experts asked to place agencies on a liberal-conservative scale		✓
6	Gilmour and Lewis (2006) use the partisanship of the enacting coalition that created the agency		✓
7	Both Nixon (2004) and Snyder and Weingast (2000) scale the votes of commission members who had served in Congress	✓	
8	Huber and Shipan (2002) use the party affiliation of the appointees	✓	

Table 1: Approaches to Measuring Agency Ideology

able for executive branch agencies that use the rulemaking process. Furthermore, estimates are only precise for agencies that are reasonably active "rulemakers." There are roughly 220 agencies with rulemaking authority that have issued at least one rule in my dataset.[9] Many of these agencies, however, write rules too infrequently. In order to recover accurate estimates, I include only those agencies that propose more than 15 rules during each of the two presidential administrations I analyze, the Clinton and George W. Bush administrations, which yields a total of 66 agencies. The results do not change much when including more agencies, although the confidence bands for the low-production agencies are large, making inferences unreliable.

Is the focus on rulemaking an advantage or limitation of the study? Clearly the focus on rulemaking narrows the scope of agencies analyzed and, within agencies, discounts a number of important agency functions.[10] Other studies have focused on more holistic measures of agency ideology, which may have advantages, but can raise challenges for interpretation. What does it mean to say that the Army is more conservative than the Broadcasting Board of Governors if we do not know the relevant task being measured? Perhaps the Army wages conservative wars and the Broadcasting Board of Governors produces liberal programming. While this may be true (a holistic measure is agnostic about the output), the comparison is arguably apples to oranges. By narrowing in on rulemaking, the interpretation of liberal and

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[9]Throughout I refer to "agencies" generically without specifying whether this is a subunit of a larger agency or department or whether it is a stand alone agency. In practice, the analysis that follows disaggregates agencies by their unique four-digit code that is attached to each Regulatory Identification Number. See Table 7 in the appendix for a list of all the agencies.

[10]Other functions that federal agencies perform include inspections, procurement, data collection and the delivery of a whole host of services including national security protection, delivering the mail, allocating grants etc.

conservative agencies is straightforward, both for the obvious reason that the policy outputs are comparable and because writing rules has a parallel in the familiar legislative setting, where lawmakers and bills have ideological orientations just as agencies and regulations do.

3 Theoretical Framework

In order to establish a theoretical foundation for my bias estimates, I analyze a simple auditing model with a President and an Agency.[11] The Agency proposes a regulation with content that is hidden from the President. The President can pay a cost to audit the regulation, learn the content and threaten to veto the regulation. Conditional on an audit, the Agency can change the content of the regulation in order to satisfy the President, or the Agency can allow the regulation to be vetoed. Each actor has known ideal points (or policy preferences), x_A and x_P, on a one-dimensional policy space $X \subset \Re$. Each actor receives spatial utility according to the loss function $\lambda(x_i - x)$, where x is the spatial location of the policy. The President's cost of auditing k is distributed uniformly on the range $k \sim [0, 1]$. Without loss of generality, I assume that the status quo $x_0 = 0$ and I focus on the case where $x_0 < x_P < x_A$.

In addition to a spatial component, each proposal also has a quality component $q \in \Re^+$. Each actor has an ideal level of quality for the regulation. I use the notation $r(x, q)$ to refer to a regulation of spatial location x and quality q. The Agency must internalize the cost of producing quality and thus chooses q to maximize $b_A q - c(q)$, where $c(q)$ is the cost of producing the policy and is increasing and twice differentiable.[12] The President does not

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[11]The Agency can be thought of as composed of careerists and appointees, and the ideal point of the Agency will be the result of this composition.

[12]The exogenous parameter b_A could capture a number of characteristics related to culture, professionalism, task difficulty et cetera, all of which might lead the Agency to shirk.

internalize the cost of producing quality, but has an ideal amount of quality according to the loss function $\phi(q_P - q)$.[13] The President naturally prefers the Agency to produce a high-quality regulation, but the President understands that too much quality invested into one regulation may undermine investments elsewhere.[14]

Given the ideological and quality components, the utility function for the President is

$$u_P = -\lambda(x_P - x) - \phi(q_P - q) \tag{1}$$

and the utility function for the Agency is given by

$$u_A = -\lambda(x_A - x)^2 + b_A q - c(q) \tag{2}$$

Define q^* as the q that maximize (2) with respect to q. The game is sequential and can be solved by backward induction. I state the pure strategy equilibrium here and prove it in the appendix.

Lemma 1 *In equilibrium*

(a) A proposal strategy for the Agency $s_A^1(x, q; x_A, x_P, \beta_A)$ consists of:

    (i) $r(x_0, q_0)$ if expected utility of proposing a rule is too low

    (ii) $r(x_A, q^*)$ if expected utility is sufficiently high

(b) An auditing strategy for the President $s_P(a; x_A, x_P, \beta_A, k)$ consists of:

    (i) $a = 0$ if $u_A(r(x, q)) > u_A(x_0, q_0)$

    (ii) $a = 1$ if $u_A(audit) > u_A r(x_A, q^*, k)$

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[13]Assume that without the rule (if it were vetoed, the default q_0 would be 0.

[14]Interesting cases arise, however, when the President demands more quality than the Agency will optimally supply.

(c) If $a = 1$, a reset strategy for the Agency $s_A^2(x', q'; x_A, x_P, b_A, c(q))$ consists of:

    (i) $r(x', q')$ such that $U_A(r(x', q')) \geq U_A(x_0, q_0)$

By Lemma 1, the Agency always proposes a regulation $r(x, q)$ with policy bias $x = x_A$ and quality bias $q = q^*$. The President will only audit the Agency when the President can commit to vetoing the proposal: when the President prefers the status quo to the Agency's proposal. When the veto is credible, the probability of an audit is increasing in the distance between x_P and x_A and the distance between q_A and q_P. The probability of an audit increases in the degree to which the Agency would change the policy after an audit.

Proposition 1 *Conditional on the President being able to commit to a veto, the probability that the President audits the Agency is increasing in:*

  (i) The policy gain for the President: $\lambda(x_A - 2x_P)$

  (ii) The quality gain for the President: $\phi(q_P - q^*)$

And decreasing in k.

Using Proposition 1, I turn to a method for estimating the auditing bias that Presidents exhibit toward agencies.

4 Bias Estimates

The theoretical model introduced in the previous section can be used to inform a method for estimating presidential bias toward regulatory agencies. I outline the method in this section and show how it recovers (like the model) two sources of bias, namely a *partisan* bias (the ideological bias along x) and a *non-partisan* bias (quality bias along q). I start by defining a reduced-form version of the theoretical model and then outline a procedure for estimating these reduced-form parameters.

Bias Parameters. Proposition 1 makes clear that the president's incentives to audit a proposal are driven by three factors: 1) the policy bias toward the Agency, 2) the divergence of preferences over the optimal quality investment and 3) the cost of auditing the proposal. I define a reduced-form policy bias parameter as $\pi = \lambda(x_A - 2x_P)$, which is the potential ideological gain the president can achieve from auditing the Agency. I define the quality bias as $\rho = \phi(q_P - q^*)$. I divide the cost of auditing the proposal into two components: an unobservable, stochastic elements of cost κ (e.g. the opportunity costs) and an observable element of cost k that may vary systematically with features of individual regulations. Thus, there are three unobserved parameters (π, ρ and κ) and one observed parameter (k) that define the relative benefit of auditing a proposal compared to not auditing.

As suggested by Proposition 1, in equilibrium the President's utility from auditing increases when the Agency is ideologically distant (high π), produces low-quality regulations (high ρ) and makes a proposal that is cost effective to audit (low κ, low k). The reduced-form version of the President's net utility for auditing the Agency can be defined as

$$V_p = \pi + \rho - (\kappa + k) \tag{3}$$

The President will audit if

$$\kappa \leq \pi + \rho - k \tag{4}$$

the probability of an audit can be defined as:

$$Pr(Audit = 1) = \Phi(k) \tag{5}$$

where Φ is the cumulative density function. This requires the assumption that the unobservable variables are entered into a latent variable framework where $\eta \sim N(0,1)$ and

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Figure 1: Steps to Recover Bias Estimates

(1) Select two presidential administrations $i = R, D$

(2) For each administration:

   (i) Regress audit data on observable rule characteristics k_{ar} using Probit (Eq. 6)

   (ii) Collect "residuals" (Probit's latent variable η_{ra})

   (iii) Regress residuals on agency indicators to recover average agency audit rates α_a^i

   (iv) Define $\alpha_a^i \equiv \pi_a^i + \rho_a$, where π_a^i is party i's partisan bias and ρ_a is non-partisan bias

(3) Estimate *relative* partisan bias $\pi_a = \alpha_a^D - \alpha_a^R$

(4) Make identifying assumption to estimate non-partisan bias $\rho_a = \dfrac{\alpha_a^D + \alpha_a^R}{2}$

$\eta \equiv \pi + \rho + \kappa$.

Estimation. While equation (5) estimates the probability of an audit, it does not recover estimates of the parameters of interest, namely the partisan π_a and non-partisan ρ_a biases associated with each agency a. In this section I outline a procedure for disentangling estimates of π_a and ρ_a. The essence of the approach is to compare two presidential administrations and estimate the extent to which they audit the same agency with different intensities. Partisan bias is the difference in the intensity that the two administrations audit the same agency, whereas non-partisan bias is the average intensity of auditing across the two administrations.

I outline the procedure for estimating the partisan and non-partisan bias for each agency in Figure 1. For each administration, the method requires two steps.[15] The first step is to

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[15]For clarity of presentation, I first describe how to estimate π_a^R and π_a^D separately on each administration $i = R, D$ in order to recover π_a, although it is possible to estimate both

net out the observable features of a regulation and recover a latent auditing variable. Using equation (5), I estimate the probability of an audit for one administration (R in this case) using the probit model

$$Pr(Audit_{ra} = 1) = Pr(\eta_{ra} < k_{ra}\beta)$$
$$= \Phi(k_{ra}\beta) \tag{6}$$

where η_{ra} is an error term for each agency-rule disturbance and β is a vector of coefficients corresponding to the observable features of each rule r. To identify the model, I use the standard probit assumption that the latent variable η_{ra} has mean 0 and variance 1.[16] Recall from the previous section that the latent variable includes party R's partisan bias π_a^R, non-partisan bias ρ_a and the random auditing cost parameter κ_{ra} such that: $\eta_{ra} \equiv \pi_a^R + \rho_a + \kappa_{ra}$.

The second step in the estimation procedure is to break up the latent variable by agency averages and net out the random component of the auditing cost. To do this, I regressed the recovered latent variable η_{ra}, on a set of indicators for each agency

$$\eta_{ra} = \alpha_a^R + \kappa_{ar} \tag{7}$$

to recover an average agency effect α_a^R. Each agency parameter, or fixed effect, is theoretically composed of two parts: $\alpha_a^R \equiv \pi_a^R + \rho_a$.[17]

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simultaneously, although there are drawbacks. See section B of the appendix for a discussion.

[16]This is the formulation of the probit model where the latent variable is the error term, though probit is sometimes motivated by using a continuous version of the binary dependent variable as the latent variable. See Freedman (2009) for a relavant discussion.

[17]Note that while it would be feasible to include these indicators in equation (6), the motivation for the two-step procedure is that including agency effects in (6) will not allow for the identification of the omitted agency. However, by decomposing the disturbances (or

Finally, the two-step procedure can be repeated with the second administration D and the relative partisan bias can be identified by taking the difference in "total bias" for each administration

$$\pi_a = \alpha_a^D - \alpha_a^R \tag{8}$$

which cancels out the non-partisan bias ρ_a shared by both administrations.[18] The resulting estimate π_a can be interpreted as the difference in auditing behavior between the two administrations, after controlling for the unobserved agency characteristics that lead to audits (ρ_a) and the observed rule-specific characteristics that lead to audits (k). If D and R are Democrats and Republicans, respectively, then "conservative" agencies have positive values because they are targeted more by party D than party R and "liberal" agencies have negative values because they are targeted more by party R than party D. "Moderate" agencies that are targeted equally by both administrations will have values around 0.

Panel A in Figure 3 presents a graphical representation for the measure of ideological bias π_a. in the Figure, Party D and R are denoted by their ideal points x_D and x_R and by their respective auditing strategies α_a^D and α_a^R. By Proposition 1, the audit rate for each party is increasing in the distance between the party's ideal point and the ideal point of the agency. The partisan bias for an agency with ideal point x_A is determined by taking the

latent variable) in step two, I am able to identify each α_a^R. Of course, this means that each α_a^R is orthogonal to the rule-specific regressors k_{ra}.

[18]This requires the assumption that non-partisan bias is time-invariant. This is potentially a strong assumption. As I discuss more in the next section, one option when implementing this procedure is to include year dummies in k_{ra} in the first stage. These dummies should control for changes in the types of rules proposed over time that could contribute to variations in auditing.

vertical difference between the two auditing strategies at x_A: $\pi_a = \alpha_a^D - \alpha_a^R$.[19]

Up to now, my focus has been on estimating partisan bias. With an added assumption, it is also possible to identify the non-partisan bias ρ_a. Start with the identity $\alpha_a^i = \pi_a^i + \rho_a$ and note that with two administrations the system of equation yields two equations and three unknowns

$$\begin{aligned} \alpha_a^R &= \pi_a^R + \rho_a \\ \alpha_a^D &= \pi_a^D + \rho_a \end{aligned} \tag{9}$$

In order to identify ρ_a, I assume that it is the midpoint between the α_a^i's

$$\rho_a = \frac{\pi_a^D + \pi_a^R}{2} \tag{10}$$

In practice, this assumption is innocuous because the location of the ρ_a's does not matter. What is important is the relative location of the ρ_a's, which is not disrupted by assuming (10) since it is order-preserving. In general, any measure of ρ_a simply needs to move in lockstep with α_a^D and α_a^R.[20] Panel B of Figure 3 provides a graphical representation of ρ_a, which is portrayed as the midpoint between the auditing strategies of R and D. In this panel, the non-partisan bias is *constant* for all agencies that have an ideal point between the ideal points of the two parties. In practice, non-partisan bias is highly variable, which I

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[19]While the method recovers an estimate of the difference between α_a^D and α_a^R, it cannot identify these parameters. It also cannot identify the agency's ideal point x_A, or the ideal points of the two parties: x_D and x_R. For a given agency, $\pi_a = \lambda(x_A - 2x_P)$, which yields two unknowns for one equation. Adding an additional agency will add a new equation, but will not solve the problem because each agency introduces an additional unknown, x_A.

[20]Note that there may be a correlation between partisan and non-partisan bias. If, for example, α_a^D increased unilaterally, this would increase both π_a and ρ_a.

provide evidence for in the next section.[21]

5 Application: Clinton and Bush II Administrations

For the remainder of the paper, I use auditing data from the Clinton and George W. Bush (Bush II) administrations. I use this section to discuss the technical details of the results and leave the remaining sections to discuss the substantive implications. Using the steps outlined already, each administration was analyzed separately to get estimates of $\alpha_a^{Clinton}$ and α_a^{Bush}. I took the difference of these two quantities to obtain an estimate of partisan bias $\pi_a = \alpha_a^{Clinton} - \alpha_a^{Bush}$ and I used the maintained assumption that $\rho_a = \frac{1}{2}(\alpha_a^{Clinton} + \alpha_a^{Bush})$ to obtain an estimate of non-partisan bias ρ_a.[22]

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[21]For extreme agencies, a potential concern with interpreting ρ_a as non-partisan bias arises. In such cases, both parties have high levels of partisan bias toward the agency, but the method recovers partisan bias as unchanging and non-partisan bias as growing. As will become clear in the next section, however, such extreme agencies do not appear to be present in the data. Another concern is that moderate agencies (located at $\pi = 0$ in Panel B) may have higher levels of non-partisan bias because they are targeted for ideological reasons by both administrations. It is possible to estimate ρ_a by regressing it on the absolute value of π_a and using the residuals from that regression as the measure of non-partisan bias. This ensures that non-partisan bias is not artificially increasing as agencies move to the midpoint of the ideology distribution. However, with the data I analyze here, the correlation between ρ_a and an alternative measure using the residuals is .95.

[22]In the first-stage, I estimated equation (6) by using probit to regress the probability of an audit on all rule-specific covariates listed in the Unified Agenda, including indicators for each year. I show the results from these regressions in Table 6 in section B in the Appendix, as well as a description of all the covariates included in the vector k_{ar}.
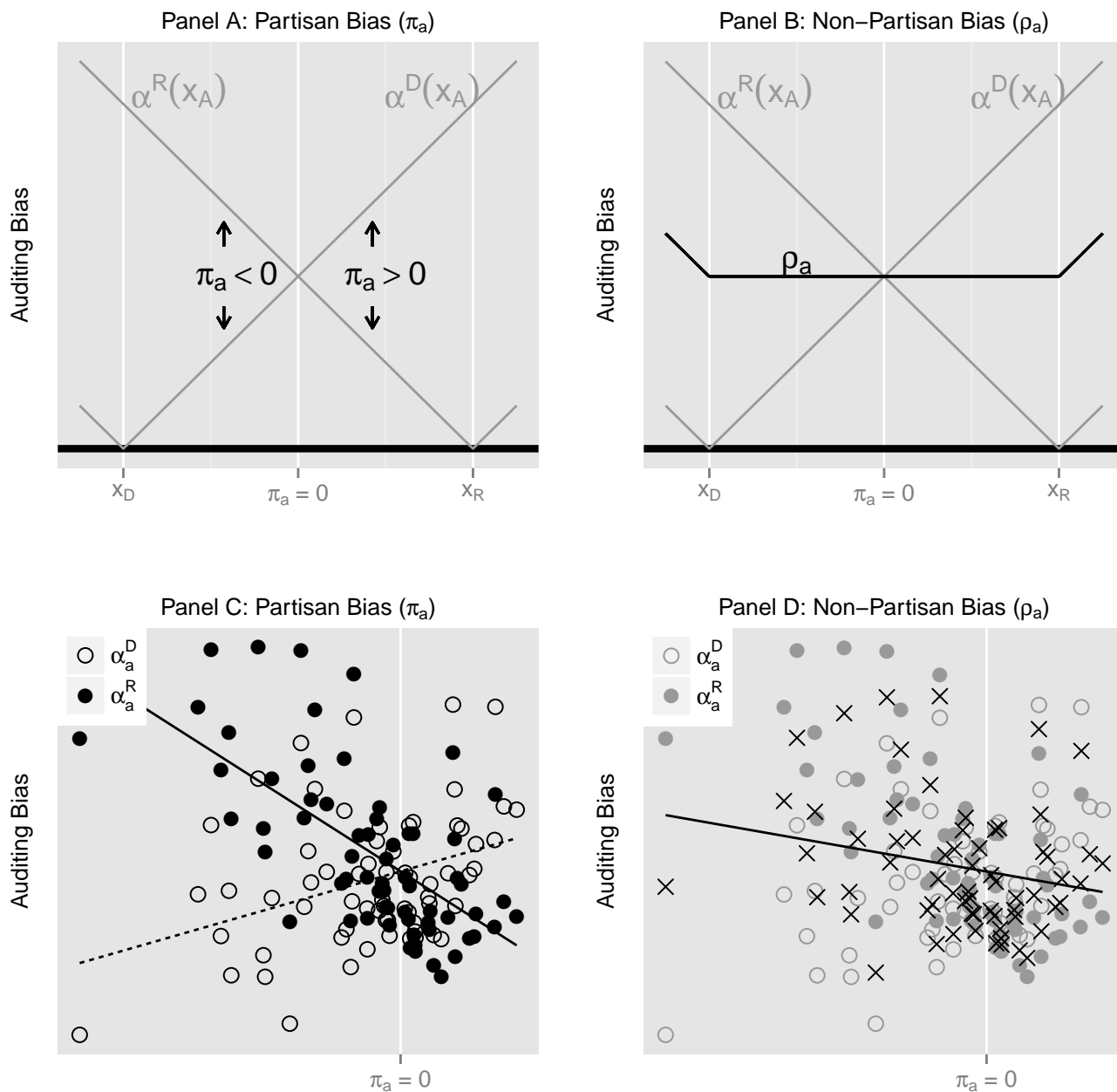
Figure 2: (Panel A) Each grey line represents the theoretical audit rate for each administration as a function of the ideal point of the agency. The vertical distance between the two grey lines is the measure of partisan bias; (Panel B) The midpoint between the two grey lines is the measure of non-partisan bias, which in this example is constant in the region between x_D and x_R; (Panel C) Each agency is represented by a pair of points: a black point for the Republican audit rate and an open point for the Democrat. Partisan bias is captured by the distance between these two points. Each line is a linear trend through the respective points; (Panel D) Each "×" is the midpoint between a pair of open and closed points. The ×'s are fit with a linear trend.

One concern is that the measure of partisan bias is driven overwhelmingly by one administration. For example, Republicans may audit agencies at different rates, whereas Democrats may audit each agency at the same rate. This would imply that α_a^R changes with a and that α_a^D is flat across all a. More troubling, this would make both parties appear partisan, when in fact the Democrats deploy a *neutral* auditing strategy. To the contrary, Panel C in Figure 3 demonstrates that both parties exhibit partisan bias. Agencies are ordered along the x-axis according to their partisan bias π_a. A neutral strategy would require that the regression line running through the Republican points (solid circles, solid line) or the Democratic points (open circles, dashed line) to be flat, which is not the case.[23] Both lines have slopes that reflect changing auditing strategies as a function of partisan bias, although the Republican slope (solid line) is steeper than the Democratic slope (dashed line). Thus, both parties deploy partisan auditing strategies, but Republican auditing is more sensitive to the particular agency.

Another concern is that the validity of the distinction between partisan and non-partisan bias depends on whether or not there are extreme agencies, i.e. those agencies that sit to the left of the Democrats or to the right of the Republicans. Such extreme agencies will be targeted, presumably for ideological reasons, at high rates by both parties. However, since the measure of non-partisan bias is the midpoint between these audit rates, extreme agencies will certainly have the effect of increasing non-partisan bias, which is misleading. Panel C provides suggestive evidence that there are no such extreme agencies in the data, as they would be apparent by their maximal partisan bias (assuming linear loss functions, as panels A and B do) and relatively high non-partisan bias.[24]

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[23]These lines are the emirical counterpart to the theoretical lines in Panels A and B.

[24]Clinton, Bertelli, et al. (2012) find in their study of agency ideology that all agencies fall *within* the ideal points of the two parties. That is, the ideal points of the president (Bush II in this case), the Republicans in both chambers, and the Democrats in both chambers are

One final concern is that the theoretical model predicts no relationship between partisan and non-partisan bias (the dimensions of x and q are assumed to be orthogonal). Contrary to this theoretical prediction, Panel D shows a slight correlation (.22) between partisan bias (the x-axis) and non-partisan bias (the y-axis). The solid line is a regression running through each measure of non-partisan bias, denoted by "$\times$" in the figure. Non-partisan bias is, of course, the midpoint between the solid circles (α_a^R) and closed circles (α_a^D) for each agency. The correlation suggests that there is more non-ideological bias centered on the liberal agencies.

## 5.1 Substantive Implications: Liberal Agencies and Conservative Agencies

I now discuss the substantive implications of the results in terms of which agencies are estimated to be liberal or conservative. Estimates of π_a for the 66 different agencies in the sample are shown in Figure 3. The 95-percent confidence intervals were calculated by simulating the procedure using the standard errors associated with $\alpha_a^{Clinton}$ and α_a^{Bush}. The results appear to confirm some commonly held assumptions about the ideology of agencies. Agencies like OSHA and the EPA's Office of Air are ranked as liberal, and more business friendly agencies like the General Services Administration and the Department of Commerce's Bureau of Industry and Security are ranked as the most conservative.

In Table 2, I provide more detail on the 15 *liberal* agencies and 8 *conservative* agencies that have estimates of π which are statistically different from 0. In order to compare the groups of liberal and conservative agencies, I hand coded them as to whether they are: 1) health, safety or environmental regulators, 2) tasked with regulating or interacting with a particular industry and 3) whether their potential beneficiaries are diffuse, i.e. not concentrated on

all more extreme than the 28 agencies they analyze.

Figure 3: Partisan Bias (by Agency)
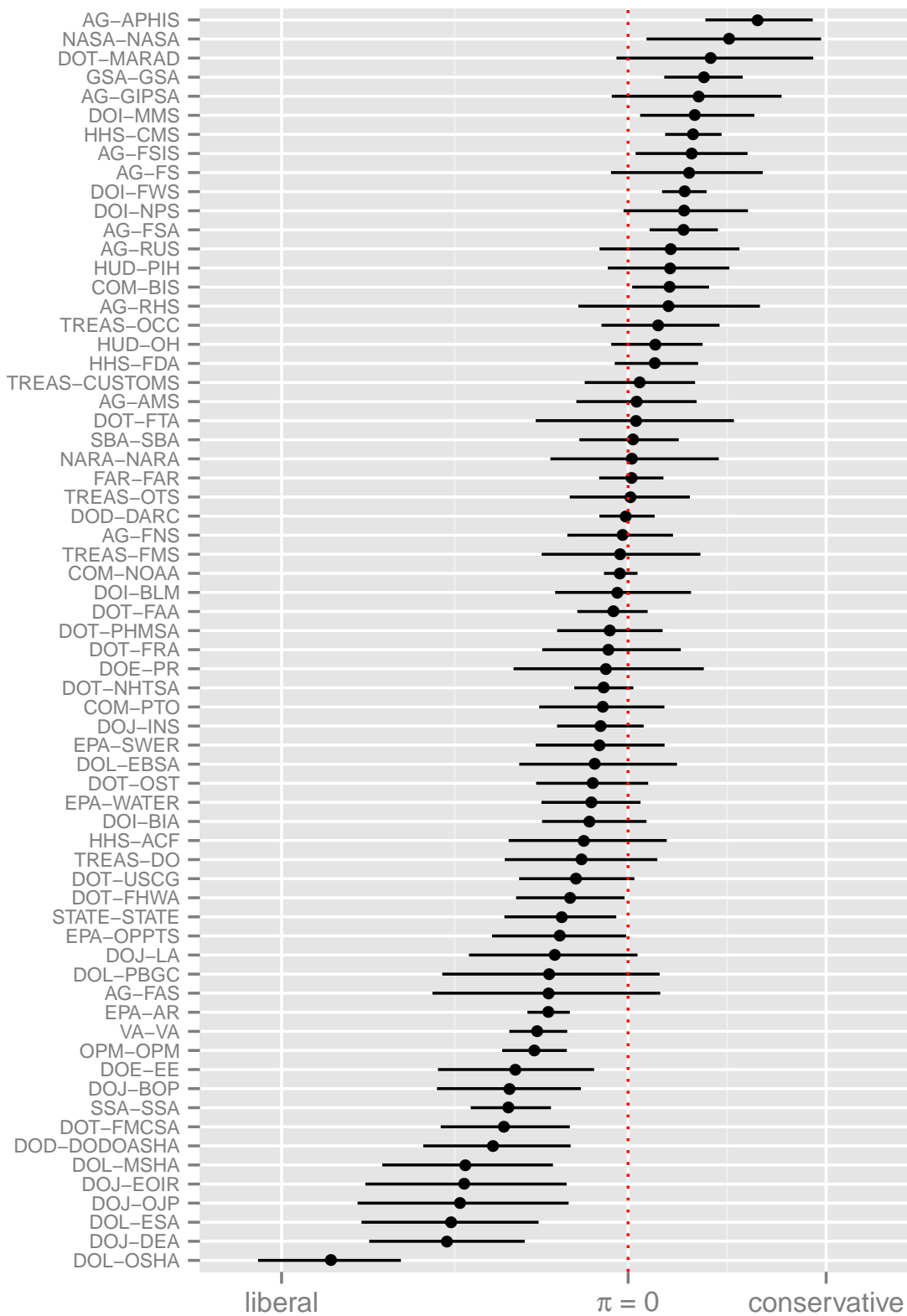
a particular industry or organization. Table 2 shows that two-thirds of the most liberal agencies (10 out of 15) are health, safety or environment regulators, compared to only 1 in 8 amongst the most conservative agencies. The liberal and conservative agencies also differ with respect to the organizational structure of their likely beneficiaries. All of the most liberal agencies have a *diffuse* constituency of beneficiaries compared with only three of the most conservative agencies. On the other hand, most of the conservative agencies have a single industry beneficiary associated with the agency. Typically the beneficiary is a well-organized industry group, such as the extractives industry for the Minerals Management Service or the defense industry in the case of the Bureau of Industry and Security.

At first glance, the results in Table 2 are not surprising. Agencies that are typically thought to be liberal or conservative appear to be appropriately grouped. Indeed, the results are positively correlated (.3, p ¡ .05) with the agency ideology estimates of (Clinton and Lewis 2008), which are designed to reflect the enduring mission of the agency.[25]

However, the results are surprising in light of the fact that they are inclusive of an appointee effect. As a result, conservative presidents should pack consistently liberal agencies (like OSHA) with appointees in order to pull the agency's ideology toward the president. Politicization should reduce the need for auditing, and a reduction in the audit rate should make an agency more "moderate." This creates a paradox if we believe appointees are effective agents of the president: truly "liberal" agencies (perhaps by the Clinton-Lewis measure) should not actually show up as liberal in my auditing data if they are sufficiently politicized.

Appointees, however, may simply not be effective agents of the president, as suggested by many accounts in the literature, including a recent survey (Clinton, Bertelli, et al. 2012), and an in-depth study of the shared influence of careerists and appointees in EPA rulemaking (McGarity 1991). In the next section I demonstrate that political auditing and politicization

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[25]See Figure 4 in the appendix for a scatterplot of the two measures.

go hand-in-hand, as liberal agencies are politicized more by Republican presidents and vice versa.[26]

6   Agency Ideology and Politicization

In this section I look at relationships between the recovered estimates of π_a and ρ_a and data on agency politicization. The purpose of this section is both to provide insights about the nature of politicization by building on previous research (e.g. Lewis 2008) and to provide some added validity to the bias measures.

Lewis (2008) argues that politicization should increase in agencies that are ideologically distant from the president. The estimate π_a from the previous section allows for a straightforward test of this conjecture since I can evaluate whether liberal agencies, by my measure, have more political appointees during Republican administrations than Democratic ones and, conversely, whether conservative agencies have more appointees during Democratic administrations.

I use data from Lewis (2008) to estimate

$$\log \left(\frac{D_a}{R_a} \right) = \beta_0 + \beta_1 \pi_a + \epsilon_a \tag{11}$$

where π_a is the ideological bias for agency a, D_a is the mean number of appointees in the agency during the Clinton administrations and R_a is the mean number of appointees during

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[26]This finding also hints that politicization may be an imperfect tool of political control. Although, as I discuss more in the next section, the upcoming analysis cannot identify changes in politicization and auditing *within* agencies, only between agencies. Thus the counterfactual audit rate for a non-politicized agency is not observed. I will look at this more in future drafts.

Table 2: Ideologically Extreme Bureaus

	Agency	Bureau	Clinton-Lewis Ideology	Hlth/Sfty/Env Regulator	Regulated Industry	Diffuse Beneficiaries
Liberal						
1	Labor	Occupational Safety & Health	-1.43	yes		yes
2	Justice	Drug Enforcement	0.37			yes
3	Labor	Employment Standards	-1.43	yes		yes
4	Justice	Office of Justice Programs	0.37			yes
5	Justice	Immigration Review	0.37			yes
6	Labor	Mine Safety & Health	-1.43	yes	Mining	yes
7	Defense	Health Affairs	2.21	yes		yes
8	Transportation	Motor Carrier Safety	0.07	yes		yes
9	Justice	Bureau of Prisons	0.37			yes
10	Social Security	Social Security	-1.32	yes		yes
11	Energy	Energy Efficiency & Renewables	0.35	yes		yes
12	Personnel	Personnel Management	0.24			yes
13	Veterans	Veterans Affairs	0.23	yes		yes
14	Environment	Air & Radiation	-1.21	yes		yes
15	Environment	Pesticides, Toxic Substances	-1.21	yes		yes
Conservative						
1	Agriculture	Animal & Plant Health Inspection	0.16		Agriculture	yes
2	Aeronautics & Space	Aeronautics & Space Admin.	-0.07		Aerospace	
3	General Services	General Services Admin.	0.26		Manufacturing	
4	Interior	Minerals Management Service	0.47		Extractives	
5	Health & Human	Centers for Medicare & Medicaid	-1.32	yes	Healthcare	yes
6	Interior	United States Fish & Wildlife	0.47			yes
7	Agriculture	Farm Service Agency	0.16		Agriculture	
8	Commerce	Bureau of Industry & Security	1.25		Security/Defense	

Note: Larger numbers on the Clinton-Lewis scale are more conservative agencies. Under the regulated industry column, an industry is entered only if there is a single industry regulated.

the Bush II administration.[27] Thus, the dependent variable captures a measure of *relative* politicization in an agency across parties. I estimate (11) on the three subsets of political appointees: Schedule C, non-career senior executive service (SES) and Senate confirmed (PAS) appointees.

Table 3: Ideological Bias and Relative Politicization

	Dependent variable:		
	Schedule C	Non-Career SES	PAS
	(1)	(2)	(3)
Ideological Bias π_a	0.340*	−0.031	0.046
	(0.163)	(0.110)	(0.092)
Constant	−0.066	0.030	0.002
	(0.057)	(0.038)	(0.032)
Observations	53	53	53
Adjusted R^2	0.060	−0.018	−0.015

Note:	*p<0.05; **p<0.01; ***p<0.001

The results from Table 3 show that liberal agencies are subject to more politicization during Republican administrations and vice versa. First recall that π_a is positive for conservative agencies and negative for liberal agencies and that it is normalized with mean 0 and standard deviation 1. Thus, the interpretation of ideological bias (the coefficient on π_a) in column 1 is that a standard deviation shift in the conservative direction for agency ideology (partisan bias) is associated with a 34 percent increase in the ratio of Democratic to Republican appointees. In other words, more conservative agencies are more politicized during Democratic administrations and more liberal agencies are more politicized during Republican administrations.

The results from Table 3 are, however, only robust to schedule-C appointees, not PAS or

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[27]For robustness, I found similar results when the dependent variable was measured as the difference in the number of appointees, though not logged.

SES appointees. It may be easier for presidents to pack agencies with Schedule C appointments since there is no limit to the number of appointees. With SES and PAS appointments, the president is bound by statute to a certain number. Furthermore, the president needs Senate approval for each PAS appointee. Lewis (2008:88) also finds that changes in Schedule C appointees have the greatest shift in politicization (and the SES and PAS to a lesser extent).

My analysis so far has been focused on how the two parties politicize agencies differently. The theoretical model allows for auditing to be motivated by more than just ideological considerations—some agencies are targeted by both parties equally. I now turn to investigating whether the appointment process works in a similar way, whereby some agencies are assigned more appointees regardless of the party in power. Specifically, I look at the relationship between *non-partisan* bias ρ_a and measures of politicization.

Using the estimated value of ρ_a, the relationship of interest is

$$\log \left(\frac{A_a}{M_a} \right) = f(\rho_a) \tag{12}$$

where ρ_a is the non-ideological bias for agency i and A_a is the mean number of appointees in the agency across all administrations and M_a is the mean number of managers. Thus, the dependent variable works as a proxy for *absolute* politicization in an agency, as opposed to the *relative* politicization between different administrations. I rearrange equation (12) and estimate

$$\log(A_a) = \beta_0 + \beta_1 \log(M_a) + \beta_2 \rho_a + \epsilon_a \tag{13}$$

The results from estimating (13) are shown in Table 4. The coefficient on ρ_a in Column 1 shows that a standard deviation shift in non-ideological bias is associated with nearly a 120 percent increase in the number of schedule C political appointees in an agency. As in the

previous model, variations in the non-ideological bias are only associated with schedule C appointees at the .05 level. There is a weaker association with the non-career SES appointees at the .1 level and no relation with the PAS appointees. This is to be expected for reasons mentioned previously.

Table 4: Non-Ideological Bias and Absolute Politicization

	Dependent variable:		
	Schedule C	Non-Career SES	PAS
	(1)	(2)	(3)
Non-Ideological Bias ρ_a	1.198*	0.782	0.337
	(0.501)	(0.426)	(0.336)
Logged Number of Managers (M_a)	0.068	0.148	0.053
	(0.094)	(0.080)	(0.063)
Constant	1.206*	0.348	0.383
	(0.576)	(0.490)	(0.386)
Observations	53	53	53
R^2	0.117	0.130	0.036
Adjusted R^2	0.081	0.096	-0.002
Note:			*p<0.05; **p<0.01; ***p<0.001

For robustness, I also estimated equation (13) and substituted $\log(A_a)$ with the dependent variable from equation (11). These results are shown in Table 5. I find that there is no relationship between non-ideological bias and changes in *relative* politicization by one of the parties. This provides more confirmation that the measure of ρ_a is actually capturing non-ideological bias since it is correlated with more appointees in an agency, on average, but not correlated with changes in relative politicization between the two parties.

Table 5: Non-Ideological Bias and Relative Politicization

	Dependent variable:		
	Schedule C	Non-Career SES	PAS
	(1)	(2)	(3)
Non-Ideological Bias ρ_a	−0.076	0.078	0.148
	(0.217)	(0.140)	(0.116)
Constant	−0.103	0.040	0.011
	(0.061)	(0.039)	(0.032)
Observations	53	53	53
R^2	0.002	0.006	0.031
Adjusted R^2	−0.017	−0.013	0.012

Note: $^*p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$

7 Discussion

7.1 Auditing and Politicization

In the previous section, I find a positive relationship between both partisan and non-partisan bias and politicization. While the results make intuitive sense, they raise questions about the dynamics between auditing and politicization.

1) My bias measures are functions of the president's auditing strategy, which is a function of the ability of the president to use appointees to close the preference gap between agencies. If appointees are effective agents of the president, why would increasing the number of appointees increase the audit rate? More appointees should decrease the audit rate.

2) What direction does the causal arrow go? Data on appointees could be a "right-side" variable and the audit rate could be a "left-side" variable, whereby increases in the number of appointees decreases the audit rate.

I plan to explore these dynamics in future drafts. Note, however, that these are within-agency effects and may require further theoretical exploration. The regressions above es-

timate *between* agency effects. Thus, while auditing and politicization may be substitutes within agencies, between agencies they are complements and appear to go hand-in-hand.

7.2 External Validity

The analysis raises some questions about the external validity of the estimates:

1) What can these measures of bias—specific to rulemaking—say about agency ideology more broadly? Does a "liberal" rulemaker also enforce its rules in a "liberal" way?

2) What do the measures of bias tell us about the enduring features of ideology within an agency? As stated, the measures are inclusive of both appointees and careerists and thus are technically specific to moments in time.

3) Can these measures of agency bias be linked up with other institutions, e.g. presidents and Congress? The theoretical model presented here assumes an ideal point for the president, which as discussed is not identified. If an external estimate of presidential ideal points were used, such as Bailey (2007), then the ideal points of the agencies could be pinned down and the estimates would have more comparability across branches. If the ideal points of the president were pinned down, then the ideal points of the agencies could be pinned down as well. Note that the recovered estimates of partisan bias are *not* the ideal points of the agency, though they should be correlated with the ideal points in the range $x_A \in [x_D, x_R]$. See Figure 3 and the related discussion for a more formal depiction of the difference between bias and ideal points.

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A Proofs

Proof of Lemma 1:

(a)

(b)

(c)

The Agency must make the President indifferent between the proposal (after the reset) and the status quo. In principle, the Agency can change proposals policy location, its quality or both. The Agency will choose whichever combination of changes offers the least cost.

The proof will rely on the marginal cost of changing policy and quality for the agency and on the single-crossing property.

Proof of Proposition 1:

B   Estimation

B.1   Clinton and Bush Data

From the Unified Agenda, 9 covariates specific to each regulation were collected. Agencies are required to record whether each regulation: (1) will cost more than 100 USD annually (economically significant), (2) will impose a significant burden on society but cost less than 100 USD annually (significant) (3) requires a "regulatory flexibility" analysis (4) imposes unfunded costs on state and local government (5) is under legal deadline. In addition, the UA data also lists (6) whether the agency issued an Advanced Notice of Proposed Rulemaking (ANPRM) for a particular rule and (7) whether the rule is proposing to undergo a notice-and-comment period. Finally, there are two additional categories of rules known as (8) Direct Final and (9) Interim Final rules that may also influence auditing strategies since these rules are typically on an expedited track. Each of these nine variables constitute a plausible indicator for the intensity, or impact, of a regulation and thus a cue for regulatory auditing.[28]

Results from estimating equation (6), the first step, are shown in Table 6. Many of the covariates have a statistically significant association with the probability of an audit. For example, *economically significant* and *significant* rules dramatically increase the probability of an audit relative to the base category of *substantive* rules. This finding is not surprising given that the executive orders that have governed regulatory review have emphasized the need to review economically significant rules.[29]

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[28]I discarded rules that fell into the "Administrative" or "Other" categories in the Unified Agenda.

[29]There is arguably more ambiguity about the need to review significant rules.

Table 6: First-Stage, Rule-Specific Regression

	Dependent variable:	
	Audit Probability	
	Clinton	Bush43
	(1)	(2)
Econ. Significant	1.700***	2.400***
	(0.100)	(0.091)
Significant	1.300***	1.800***
	(0.042)	(0.042)
Government Affected	−0.070	−0.230***
	(0.044)	(0.046)
Regulatory Flexibility Required	−0.066	−0.032
	(0.067)	(0.092)
Legal Deadline Rule	0.260***	0.053
	(0.053)	(0.058)
Early Proposal (ANPRM)	0.390***	0.420***
	(0.083)	(0.100)
Routine Proposal (NPRM)	0.490***	0.900***
	(0.043)	(0.046)
Interim Final Rule	0.660***	0.980***
	(0.060)	(0.064)
Direct Final Rule	−0.410**	−0.360**
	(0.190)	(0.150)
Constant	−1.700***	−1.800***
	(0.063)	(0.064)
Year FE	yes	yes
Observations	6,663	7,389
Note:	*p<0.1; **p<0.05; ***p<0.01	

C   Comparison with Clinton-Lewis Scores

Figure 4 shows the correlations between π_a and the Clinton and Lewis (2008) measure of agency ideology. There is a modest correlation (.3; $p < .05$) with this measure, which is the only other agency ideology measure based on permanent features of an agency, not fluctuations based on appointee ideology.

Figure 4: Comparison with Clinton-Lewis Ideal Points
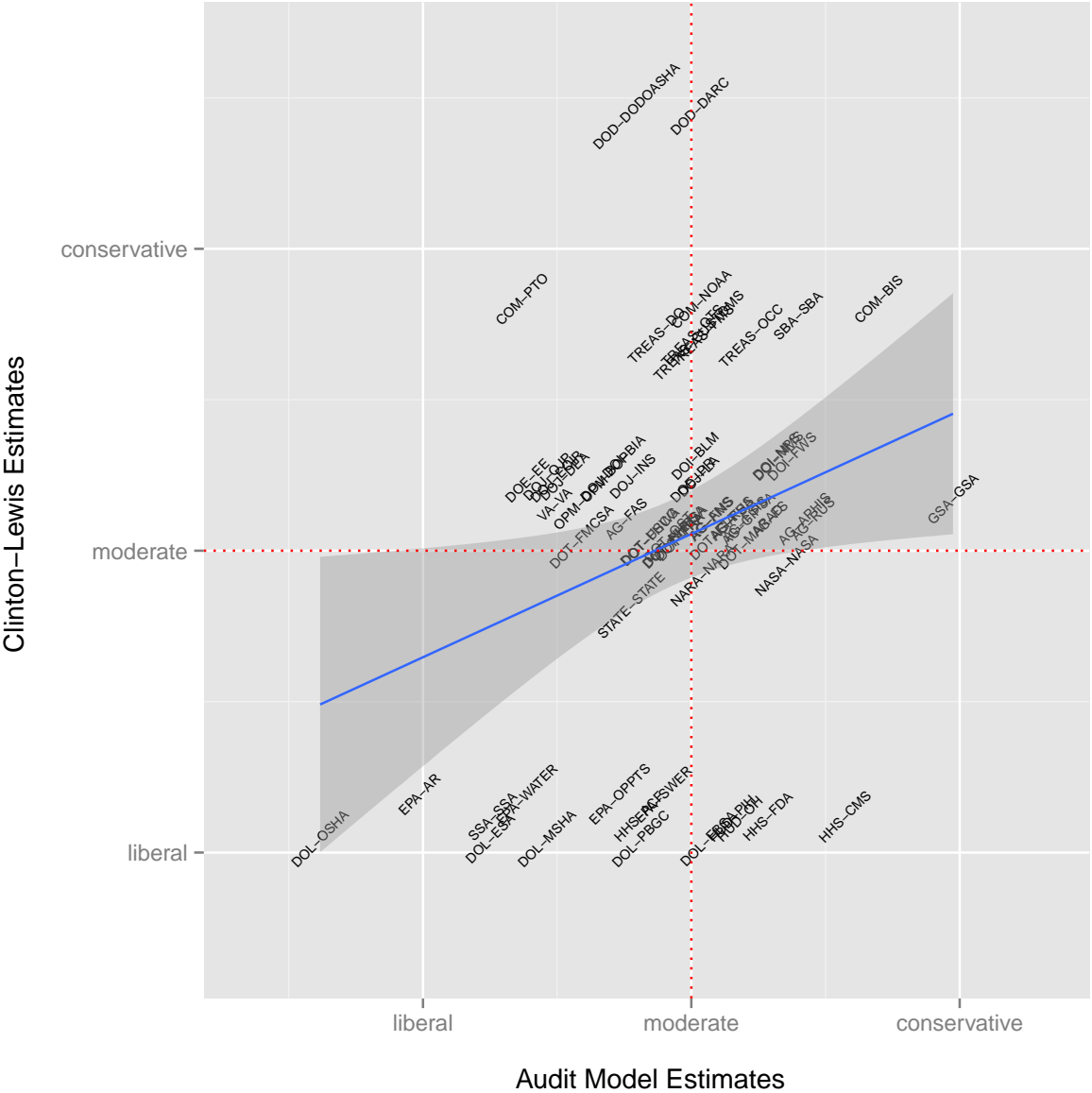
D List of Agencies

See Table 7 for a list of all 66 agencies from which I recovered estimates of partisan and non-partisan bias.

Table 7: Agencies and Bureaus in Analysis

		Department	Agency
1	AG-AMS	Department of Agriculture	Agricultural Marketing Service
2	AG-APHIS	Department of Agriculture	Animal and Plant Health Inspection Service
3	AG-FAS	Department of Agriculture	Foreign Agricultural Service
4	AG-FNS	Department of Agriculture	Food and Nutrition Service
5	AG-FS	Department of Agriculture	Forest Service
6	AG-FSA	Department of Agriculture	Farm Service Agency
7	AG-FSIS	Department of Agriculture	Food Safety and Inspection Service
8	AG-GIPSA	Department of Agriculture	Grain Inspection, Packers and Stockyards Administration
9	AG-RHS	Department of Agriculture	Rural Housing Service
10	AG-RUS	Department of Agriculture	Rural Utilities Service
11	COM-BIS	Department of Commerce	Bureau of Industry and Security
12	COM-NOAA	Department of Commerce	National Oceanic and Atmospheric Administration
13	COM-PTO	Department of Commerce	Patent and Trademark Office
14	DOD-DARC	Department of Defense	Defense Acquisition Regulations Council
15	DOD-DODOASHA	Department of Defense	Office of Assistant Secretary for Health Affairs
16	DOE-EE	Department of Energy	Energy Efficiency and Renewable Energy
17	DOE-PR	Department of Energy	Office of Procurement and Assistance Policy
18	DOI-BIA	Department of the Interior	Bureau of Indian Affairs
19	DOI-BLM	Department of the Interior	Bureau of Land Management
20	DOI-FWS	Department of the Interior	United States Fish and Wildlife Service
21	DOI-MMS	Department of the Interior	Minerals Management Service
22	DOI-NPS	Department of the Interior	National Park Service
23	DOJ-BOP	Department of Justice	Bureau of Prisons
24	DOJ-DEA	Department of Justice	Drug Enforcement Administration
25	DOJ-EOIR	Department of Justice	Executive Office for Immigration Review
26	DOJ-INS	Department of Justice	Immigration and Naturalization Service
27	DOJ-LA	Department of Justice	Legal Activities
28	DOJ-OJP	Department of Justice	Office of Justice Programs
29	DOL-EBSA	Department of Labor	Employee Benefits Security Administration
30	DOL-ESA	Department of Labor	Employment Standards Administration
31	DOL-MSHA	Department of Labor	Mine Safety and Health Administration
32	DOL-OSHA	Department of Labor	Occupational Safety and Health Administration
33	DOL-PBGC	Department of Labor	Pension Benefit Guaranty Corporation
34	DOT-FAA	Department of Transportation	Federal Aviation Administration
35	DOT-FHWA	Department of Transportation	Federal Highway Administration
36	DOT-FMCSA	Department of Transportation	Federal Motor Carrier Safety Administration
37	DOT-FRA	Department of Transportation	Federal Railroad Administration
38	DOT-FTA	Department of Transportation	Federal Transit Administration
39	DOT-MARAD	Department of Transportation	Maritime Administration
40	DOT-NHTSA	Department of Transportation	National Highway Traffic Safety Administration
41	DOT-OST	Department of Transportation	Office of the Secretary
42	DOT-PHMSA	Department of Transportation	Pipeline and Hazardous Materials Safety Administration
43	DOT-USCG	Department of Transportation	U.S. Coast Guard
44	EPA-AR	Environmental Protection Agency	Air and Radiation
45	EPA-OPPTS	Environmental Protection Agency	Office of Prevention, Pesticides and Toxic Substances
46	EPA-SWER	Environmental Protection Agency	Solid Waste and Emergency Response
47	EPA-WATER	Environmental Protection Agency	Water
49	GSA-GSA	General Services Administration	General Services Administration
50	HHS-ACF	Department of Health and Human Services	Administration for Children and Families
51	HHS-CMS	Department of Health and Human Services	Centers for Medicare & Medicaid Services
52	HHS-FDA	Department of Health and Human Services	Food and Drug Administration
53	HUD-OH	Department of Housing and Urban Development	Office of Housing
54	HUD-PIH	Department of Housing and Urban Development	Office of Public and Indian Housing
55	NARA-NARA	National Archives and Records Administration	National Archives and Records Administration
56	NASA-NASA	National Aeronautics and Space Administration	National Aeronautics and Space Administration
57	OPM-OPM	Office of Personnel Management	Office of Personnel Management
58	SBA-SBA	Small Business Administration	Small Business Administration
59	SSA-SSA	Social Security Administration	Social Security Administration
60	STATE-STATE	Department of State	Department of State
61	TREAS-CUSTOMS	Department of the Treasury	United States Customs Service
62	TREAS-DO	Department of the Treasury	Departmental Offices
63	TREAS-FMS	Department of the Treasury	Financial Management Service
64	TREAS-OCC	Department of the Treasury	Comptroller of the Currency
65	TREAS-OTS	Department of the Treasury	Office of Thrift Supervision
66	VA-VA	Department of Veterans Affairs	Department of Veterans Affairs