

Rubberstamping

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Abstract

Informal, “notice-and-comment,” rulemaking is the prototypical mechanism employed by U.S. regulators. However, agencies frequently claim themselves exempt from notice-and-comment, and courts typically agree. Hence, agencies face a strategic choice between rulemaking processes. To assess the implications, we study a series of models with possible exemption. In a baseline model with one group and a policy-agnostic agency, the group captures the agency in that it gets its preferred outcome. When competing groups are incorporated societal outcomes are improved, as the agency makes policy according to its information. If the agency has policy preferences, however, there are conditions when a strong form of *rubberstamping* takes place: that is, the agency is always exempt and implements its ideal policy. Finally, we show that asymmetric information about the costs of the notice-and-comment process can impact exemptions in a number of ways, including having agency usage struck down by the court. Our results are roughly consistent with empirical observations, provide a variety of testable observations, and offer insights into how the rulemaking structure impacts societal welfare.

1 INTRODUCTION

The enactment of the Administrative Procedure Act (APA) in 1946 constitutes a watershed moment in the development of the modern era of American bureaucracy and administrative rulemaking. This “bill of rights for the hundreds of thousands of Americans whose affairs are controlled or regulated in one way or another by agencies of the Federal Government”¹ established a number of provisions for how agencies may establish regulations. The APA’s provision for informal, *notice-and-comment* rulemaking is especially noteworthy given its widespread implementation across classes of rules and agencies (formal rulemaking being rarely employed).

As is well-known, notice-and-comment involves three steps: initially, an agency conducts an analysis for a new rule and then issues its policy proposal (the notice); next, the public at large (in reality, including many special interests) may provide commentary; and, ultimately, the agency promulgates its final rule after taking the comments into account. Subsequently, societal interests may appeal the rule for review to the federal courts, in which case the court is supposed to consider the agency’s internal analysis, along with the public comment and the agency’s reaction.

Proponents of notice-and-comment in the legal tradition highlight its many benefits, including its inclusion for public deliberation (e.g. ?), its provision of important technical information to the public (e.g. ?), and its enhancement of agency accountability (e.g. ?). Social scientists, analyzing the consequences of the APA, maintain that notice-and-comment provides politicians with valuable time to allow for bargaining and helps ensure that long-term solutions correspond with their political preferences (??).

Of course, even if one accepts the existence of these benefits uncritically, they are acknowledged as coming at the cost of governmental efficiency. As the Administrative Conference of the United States put it in its 1992 round of recommendations for the APA, “there can be costs to the agency in using notice-and-comment procedures, including the time and effort of agency personnel, the cost of Federal Register publication, and the additional delay in

implementation that results from seeking public comments and responding to them. For significant procedural rule changes, the benefits seem likely to outweigh the costs; but this may not be the case for minor procedural amendments.”² Thus, while there may be other reasons to do so, such as realizing more favorable policy outcomes, agencies may have an incentive to engage in an end run around notice-and-comment, if it is feasible, to avoid its costs.

Indeed, this is frequently a possibility. While often overlooked, particularly by social scientists, the APA provides a number of exemptions to notice-and-comment rulemaking, both for particular kinds of rules (e.g. interpretative rules³) and for particular kinds of agencies (e.g., those providing national security). And while many of these rules are minor and non-controversial, it is widely acknowledged that this is not always the case. Indeed, according to a 2012 Government Accountability Office report,⁴ 77% of major rules (and 61% of nonmajor rules) were promulgated under the “good cause” exemption to notice-and-comment.⁵ If the APA is a Bill of Rights protecting citizens from the faceless bureaucracy, then abuse of its exemptions necessarily “dishonors our system of limited government” (?, 1312).

The procedural benefits of exemptions may make them enticing to agencies, but the costs of being caught overstepping boundaries mean that agencies must exercise discretion in choosing when to invoke exemption—and when not to. Indeed, agencies may only allow notice-and-comment when administrators do *not* care about input. As ?, 1492 argued,

“No administrator in Washington turns to full-scale notice-and-comment rule-making when she is genuinely interested in obtaining input from interested parties. Notice-and-comment rulemaking is to public participation as Japanese Kabuki theater is to human passions—a highly stylized process for displaying in a formal way the essence of something which in real life takes place in other venues. To secure the genuine reality, rather than a formal show, of public participation, a variety of techniques is available....”

Not surprisingly, many in the legal community have called for clarifying when exemptions apply and reducing their use; emblematic, the Administrative Conference issued recommendations in 1969, 1973, 1983, and 1992 for adjusting the scope of the set, while an unsatisfying body of case law has developed properly identifying the boundaries of that set.⁶

Hence, there remains considerable controversy surrounding the use—and abuse—of exemptions. For an example of their use that exemplifies their muddled nature, consider the Internal Revenue Service (IRS). The Treasury Department, of which the IRS is a constituent part, annually issues changes to the Internal Revenue Code, the nation’s primary domestic federal tax code. Despite acknowledging that the APA notice-and-comment provision applies to the departments activities, Treasury “almost as often as not...does not follow the traditional APA-required pattern of issuing an NPRM [notice of proposed rulemaking], accepting and considering public comments, and only then publishing its final regulations” (? , 1730). Treasury justifies its stance by invoking the interpretative rules exemption: “Interpretative rules are not subject to the provisions of 5 U.S.C.... Although most IRS/Treasury regulations are interpretative, and therefore not subject to these provisions of the APA, the IRS usually solicits public comments on all NPRMs.” Intriguingly, citizens almost never contest those NPRMs where Treasury *does* solicit public comments (?).⁷ While the public’s policy could well be one of *qui tacet consentire*, indicating broad support for whatever policies Treasury might come up with, the nature of tax codes makes this possibility improbable. Rather, the IRS may use exemptions to expedite change and/or realize outcomes more to its liking relative to notice-and-comment.

Of course, that agencies commonly seek and are granted exemptions neither necessarily implies that this practice constitutes abuse nor that it leads to bad policy. Even if agencies overstep their bounds, good policy might arise if agencies (1) are well-equipped to know which policy is best; and (2) do not introduce their own policy bias. Recent empirical evidence (?) suggests agency overuse of exemptions is primarily a product of the low risk of punishment for doing so. In other words, agencies overuse exemptions when there is little disincentive

to shirk, and they do so to preserve autonomy and to minimize costs. Thus, the Treasury example may simply reflect an opportunistic agency responding to relatively lax enforcement. Indeed, ?, 1807 qualifies that “[she does] not mean to suggest that Treasury...[is] intentionally manipulating the rules to accomplish nefarious ends. Even assuming the best of intentions, however, Treasury’s practices at least contradict the democratic impulses driving the APA and may lead to less effective guidance.”

Avoidance, however, does not always play out in a political vacuum. Consider the 1996 passage of the Small Business Regulatory Enforcement Fairness Act (SBREFA), which required, among other things, that two agencies—the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA)—execute additional inclusive panel processes beyond traditional informal rulemaking. SBREFA, hammered out by a newly-elected Republican Congress, was established because “a vibrant and growing small business sector is critical to creating jobs in a dynamic economy” but “small businesses bear a disproportionate share of regulatory costs and burdens,”⁸ and so it comes as little (political) surprise that two agencies frequently targeted by regulation critics would be subject to additional requirements.⁹ The agencies’ public responses were supportive. The EPA stated that the “SBREFA is consistent with EPA Administrator Carol Browner’s ongoing efforts to enhance stakeholder involvement, particularly by small entities, in the rulemaking process,”¹⁰ while a senior OSHA economist noted that “Since the passage of [the] SBREFA, OSHA has redoubled its efforts to enhance the involvement of this important group of [small business] stakeholders in the process and to identify cost-effective ways of protecting the safety and health of the millions of workers employed in small establishments.”¹¹

Yet ?, employing a difference-in-difference strategy, finds that EPA and OSHA avoided rulemaking *more* than other agencies after the SBREFA. Three explanations for the two agencies’ responses come to mind: that they changed their policies by proposing fewer rules that would attract small business interests; that they avoided the new costs imposed by the SBREFA; and that they responded aggressively to demonstrate that they would not be

bullied by congressional opposition. Regardless, the SBREFA targeting highlights the fact that rulemaking requirements, and agency response through avoidance, are both subject to political tensions that are not easily disentangled from procedural costs. This may even be for largely behavioral reasons. For example, in a seemingly analogous situation, ? found that “liberal” agencies at odds with the conservative George W. Bush administration were more likely to have additional compliance requirements imposed upon them, but also that they perceived and reported more effort than actually performed controlling for these higher hurdles.¹² It seems that impositions and exemptions reflect a balance of procedural costs and political preferences, and the nature of this balance introduces the possibility that not all uses—and abuses—of exemptions are harmless.

Given the potential for abuse, we might expect courts to oppose strenuously the exemption’s overuse. And, to some extent, courts have done so. Speaking a quarter century ago, the DC Circuit warned that good cause exceptions are to be “narrowly construed and reluctantly countenanced.”¹³ More recently, the same circuit argued that the costliness of notice-and-comment alone is insufficient to eschew it, “good cause requires some showing of exigency beyond generic complexity of data collection and time constraints;”¹⁴ as a result, “bald assertions that the agency does not believe comments would be useful cannot create good cause to forgo notice-and-comment procedures.”¹⁵ Yet, the cases mentioned above, as well as the exemption’s widespread use, suggest that such tough talk has not stopped agencies frequent invocation of the exemption.

Strikingly, while the fundamental importance of APA exceptions has been discussed in some depth in the legal literature (e.g. ??), the opportunity to avoid the APA has not been widely considered by social scientists studying administrative behavior (?). Most notably, scholars have not systematically analyzed the decision whether to engage in, or to eschew, notice-and-comment. Such lack of attention seems mistaken, as our discussion above suggests that agencies face a strategic question, even when they are not well-protected by vague exceptions, that precedes informal rulemaking: Should they engage in notice-and-comment

or attempt to sidestep it by claiming exempt status?

Our analysis answers this questions by theoretically investigating the relevant choice process. We do so by modeling rulemaking as a strategic game, integrating an initial choice of whether to use notice-and-comment or not. In doing so, we offer insights complementary to those in ?, which represents the first attempt to model the “textbook” notice-and-comment process (from agency to a public group to a court) and which is the model most similar to our own.¹⁶ Gailmard and Patty note that notice-and-comment rulemaking creates a paper trail of evidence, which they seek to endogenize. Yet, our discussion suggests that, if we accept the legal canon on exemption, the paper trail that we observe with notice-and-comment rulemaking should be quite different than what we would observe if exemptions were not employed to prevent a trail in the first place.

To better understand the effects of exemption on informal rulemaking, we develop a model that is as simple as possible and builds additional complexity incrementally. Our baseline model includes three players: an agency, an interest group, and a court. The agency decides not only which rule to propose but also may opt out of notice-and-comment. If the agency claims exemption, the court may decide if the claimed exemption is justified or not. If the court allows the exemption, the game immediately ends and the rule takes effect. If either the court rejects the exemption or the agency does not claim its rule qualifies, then notice-and-comment ensues. At this stage the group may expend effort to learn about and comment on the proposed rule. If the group provides evidence that the proposed policy is not the socially optimal choice then the rule is revised and an alternative is put in place, while, if no new information or data is revealed through the comment process the agency’s proposed rule remains in place.

Given agencies that are averse to policy reversal and that must pay costs to file for exemption and courts that wish to minimize potential costs of not granting an exemption which has good cause, we predictably find that a policy-neutral agency always proposes the interest group’s preferred policy, which the interest group always allows to proceed without

complaint. That is, the agency's avoidance of costly conflict results in capture in classical fashion by the group, as the the latter always receives its preferred policy outcome (?).

One obvious problem with the baseline model is the finding that interest groups always are delighted with proposed regulations does not comport with reality. Additionally, some basic, potentially relevant features of rulemaking are not captured. As such, we modify the model in three ways: by building in competing interest groups, assuming that the agency has policy preferences, and incorporating asymmetric information about the potential costs of notice-and-comment process.

Including two groups with competing preferences captures the reality of myriad rulemakings. Indeed, the presence of competing interest groups with heterogeneous preferences has been used as a primary criterion for classifying notice-and-comment cases (?).¹⁷ We find that competing groups generally benefit society, which comports with previous results on advocacy (?). Indeed, the threat of opposition from either side compels the agency to behave in textbook fashion by always proposing the rule that it thinks will benefit society most. However, the agency's *procedural* decision varies, with exemptions being appealed only when the court faces stiff costs for overturning exempt agencies.

When we then incorporate agency policy interests into the competing groups model, we find more nuanced results. In some circumstances, agencies can still use exemptions to avoid notice-and-comment but now, instead of behaving as if captured, the agency realizes its own policy preference. For an intermediate range of the parameter space, however, the agency claims an exemption for its less preferred policy and goes through notice-and-comment when it proposes its preferred policy. In other instances, the agency's behavior depends on its costs of being overruled on policy grounds. Whether this equilibrium improves societal welfare relative to the baseline is conditioned by the parameter space. Interestingly, societal welfare may suffer from agencies that are *too* competent: politicized agencies confident that they know what is best for society can engage in behavior that achieves outcomes good for them but potentially bad for society.

The final variant of our model studies the competing groups model with an unbiased agency but focuses on how asymmetric information over the costs of the notice-and-comment process impacts exemption. That is, the court may be uncertain about the opportunity costs of forcing the agency to delay implementation. Alternatively, the agency may know whether or not it has a legitimate reason for claiming exemption while this is *ex ante* unknown to the court. In this case, while the agency adopts the socially optimal policy based on the information it observes, its actions diverge from the overall socially optimal course of action as sometimes it successfully claims exemptions even when the exemption is not justified.

All told, our results highlight the importance of court and agency motivations in generating outcomes under informal rulemaking. If courts are more concerned with the costs of overruling exempt agencies than they are with policy outcomes—as they may be in the case of allowing agencies to work freely in response to some catastrophe, for example—then agencies are able to avoid notice-and-comment rulemaking altogether. Neutral agencies can use this to push their best guess for society through, while biased agencies can use it to help them achieve independent policy goals. However, if courts are more concerned with policy outcomes, agencies are forced to take on notice-and-comment rulemaking, which in turn means that they only sometimes are able to work toward their preferred policy ends. Our characterization of informal rulemaking, then, is generally skeptical, though it remains possible that informal rulemaking is still preferable to alternative forms of bureaucratic implementation (?).

Our analysis proceeds in several parts. In the first section, we describe and analyze the baseline model. Second, we include competing interest groups. Next, we incorporate an agency with policy preferences. Finally, we discuss our results and conclude. Omitted proofs can be found in the appendix.

2 THE BASELINE CASE

The baseline model features three players: a Court (C), an Agency (A), and an interest Group (G). The case represents a baseline for two reasons: we model only a single interest group, and the Agency is policy-neutral.

2.1 Timing of the Game

These three actors engage in an extensive form Bayesian game; the uncertainty stems from what policy is best for Society. The timing of the game is as follows:

1. Nature draws the state of the world, which represents the best policy for Society. We denote this as Society's ideal point, $\hat{x}_S \in \{q, 1\}$, where both q and 1 are possible policies, and assume $0 \leq q < 1$. With probability $1/2$ the state is q and with probability $1/2$ the state is 1 , meaning that each policy is equally likely to be socially optimal.¹⁸ The state \hat{x}_S is *unobserved* by the players.¹⁹
2. The Agency receives a *private* signal, $s_A \in \{q, 1\}$, about the state of the world. The signal is imperfect, which we capture by fixing $\Pr(s_A = z \mid \hat{x}_S = z) = p$ for $z \in \{q, 1\}$. As p increases, the Agency is more competent at learning the true state from its signal. We assume the Agency is reasonably competent, so

$$p \geq \bar{p} \equiv \max \left\{ \frac{1}{2}, \frac{k}{1+k-q} \right\},$$

where k is the cost of the Agency having to revise a regulation due to a court rules (which we will define in more detail shortly).. We also assume the Agency is not perfectly competent, so $p < 1$.

3. After observing the signal s_A , the Agency recommends a policy, $x \in \{q, 1\}$ and that is observed by both the Court and the Group.²⁰

4. After the Agency chooses x it decides whether to apply for an exemption from the notice-and-comment process or not, $a \in \{0, 1\}$, where $a = 1$ indicates applying for exemption. Applying for exemption incurs a small cost, $\nu > 0$, for the Agency.
5. If an exemption is applied for ($a = 1$), then the Court determines whether to grant it. Define this decision as $y \in \{0, 1\}$, where $y = 1$ denotes granting the exemption and $y = 0$ denotes rejecting exemption. If $a = 1$ and $y = 1$ (that is, the Agency applies for exemption and the Court grants it), then the game ends with the proposed rule x enacted. Denote the final policy outcome π , meaning $\pi = x$ if $a = 1$ and $y = 1$.
6. If an exemption is not applied for or is not granted then the game enters notice-and-comment. The Group expends resources to try and learn the state of the world, that is it exerts *unobservable* effort $e_G \in [0, 1]$. After choosing the effort level, the Group observes a *private* signal $s_G \in \{\hat{x}_S, \phi\}$, where $s_G = \hat{x}_S$ indicates that the Group learns the state of the world while $s_G = \phi$ indicates that the Group learns no new information. With probability e_G the Group observes $s_G = \hat{x}_S$ and with probability $1 - e_G$ the signal is uninformative. The Group may choose to comment on the proposed policy x , or not. It comments by choosing a message $m_G \in \{s_G, \psi\}$, where ψ is the uninformative signal. If the Group does not learn the state of the world, it must choose the message $m_G = \psi$.
7. At last the final policy π is issued. The proposed policy x is implemented if the Group does not offer a comment providing evidence to the contrary, i.e., if $m_G \in \{x, \psi\}$ then $\pi = x$. However, if the Group does offers an argument to overturn x , that is $m_G \notin \{x, \psi\}$, then the Agency must incorporate this new information and we assume x is revised and the correct policy is implemented.²¹ We capture this with the term $\rho \in \{0, 1\}$, with $\rho = 1$ indicating that the policy is revised.

2.2 Payoffs

We begin by describing the policy components of each players' payoff. While the Agency is agnostic to policy, both the Court and the Group have policy preferences. The Court wants what is best for Society, so its utility is given as

$$u_{\hat{x}_S}(\pi) = 1 - |\hat{x}_S - \pi|.$$

(Throughout, we use subscripts to denote the ideal point captured in a given utility function.) We assume without loss of generality that the Group prefers the policy at 1, so its utility is given by

$$u_1(\pi) = 1 - |1 - \pi|.$$

These policy preferences are only part of the final payoffs. For the policy-neutral Agency,²² the payoff is a function of whether or not its proposed policy must be altered ($\rho = 1$). If altered, then the Agency pays the previously mentioned cost $k > 0$. This cost may be due to the effort it takes to actually revise and publish a rule different from that proposed.²³ Therefore, the Agency's final payoff is

$$U_A = -\rho k - \nu a.$$

As for the Court, it not only desires that the best policy for Society be implemented, but it also considers the costs of forcing the Agency to engage in notice-and-comment. Thus, if the Agency does, in fact, go through notice-and-comment, either by choice or due a rejected appeal, then the Court pays an extra cost $d > 0$. Therefore, the Court's payoff is

$$U_C = u_{\hat{x}_s}(\pi) - (1 - y)d.$$

Per the Group, recall that it prefers policies close to 1. Recall also that the Group can expend energy to learn the true state of the world. This incurs costs, so that

$$U_G = u_1(\pi) - \frac{c}{2}e_G^2,$$

where $c > \frac{1-q}{2} > 0$ scales the costs.²⁴

2.3 Results

We study the game’s perfect Bayesian equilibria (henceforth “equilibria”) with an emphasis on when there exists an equilibrium in which the Agency takes different actions following different signals. Due to beliefs off the path of play games of incomplete information often possess multiple perfect Bayesian equilibria that may result in different outcomes on the path of play. Thus, we consider these refinements on off path beliefs:

1. If at history h^t a player believes that $Pr(s_A = z|h^t) = 0$ then for any descendent history $h^{t'}$ we have $Pr(s_A = z|h^{t'}) = 0$.
2. If, for some off the equilibrium path action, the first refinement does not determine beliefs then we assume the players believe that $s_A = q$.

Given our interests these refinements seem reasonable. The first refinement rules out implausible beliefs. It implies that if the Agency separates in the policymaking stage, allowing the Court and Group to infer its signal perfectly, choosing an off path action in the exemption stage does not cause the Court and Group to for some reason believe there is some probability that the Agency observed the other signal. Given the structure of the

Agency's equilibrium strategy in our model, the second refinement seems reasonable as well. This is because on the path of play when $s_A = q$ the Agency will have a higher likelihood of being overturned compared to when $s_A = 1$. Thus, this captures the idea that the Court and Group should believe that the off path action comes from the type with the stronger incentive to deviate. The refinements are most important for the biased agency model and are only imposed when necessary to pin down behavior.

We will analyze the baseline case working backwards from the Group in the notice-and-comment subgame, as the Court's policy decision flows automatically given the Agency's, and possibly Group's, decisions. Note, it is clear that, in equilibrium, the Group will never reveal its signal if it is contrary to its preferred policy, and it will always reveal its signal if it aligns with its preferred policy. Let μ_x be the Group and Court's updated belief that $\hat{x}_S = x$ given its beliefs about the Agency's signal after it acts and define $\mu = \mu_1$. Notice that, following any Agency action, on or off the path of play, it must be that $\mu \in [1 - p, p]$. This is because, for any weight the Court and Group place on the Agency having observed a signal the Agency's competence bounds how certain they can be about the state of the world, e.g. if they place probability 1 on the signal $s_A = 1$ the Agency has no information beyond its signal and, thus, the Court and Groups can not believe that $\hat{x}_S = 1$ with probability greater than p .

The Group's optimal effort can be characterized as follows:

Lemma 1. *If $x = 1$ the Group expends effort $e_G^*(1) = 0$. If the Agency proposes $x = q$ the Group expends effort $e_G^*(q) = \frac{(1-q)\mu}{c} > 0$.*

If the Agency proposes $x = 1$ (the Group's preferred policy), then the Group will be happy to leave well enough alone, exert zero effort, and receive its first best outcome. Conversely, if the Agency proposes $x = q$ (the Group's least preferred policy), then there is some incentive for the Group to exert effort. Specifically, observe that the expected utility for a given effort level is

$$EU_G(e_G) = e_G(\mu + (1 - \mu)q) + (1 - e_G)q - \frac{c}{2}e_G^2,$$

yielding the optimal effort given in the lemma. This, in turn, means that, if $x = q$, the Agency faces a strictly positive probability of being overturned.

Next we analyze the Court's decision to grant an exemption from notice-and-comment or not should the Agency apply for one.

Lemma 2. *If the Agency chooses policy x and applies for an exemption the Court grants the exemption when $d \geq \frac{\mu_x(1-\mu_x)(1-q)^2}{c}$ and denies the exemption otherwise.*

Moving up to the Agency's decision, observe that, regardless of the Court's strategy on exemption decisions, the highest payoff for applying for exemption is $-\nu$. Conversely, if the Agency proposes $x = 1$ and does not apply for exemption, it receives its first best payoff of zero. Finally, if the Agency proposes $x = q$ and does not apply for exemption, then (as discussed above) it faces a strictly positive probability of being overturned, which yields a strictly negative expected utility. Thus we conclude that Agency behavior is given as:

Proposition 1. *In equilibrium, after observing either signal, $s_A \in \{1, q\}$, the Agency proposes $x = 1$ and never files for an exemption, $a = 0$. Off the path of play beliefs are unrestricted, i.e. $\mu \in [1 - p, p]$.*

Combined with the optimal Court and Group actions, our results show that on the path of play the Agency always chooses $x = 1$ and goes through notice-and-comment, the Group exerts zero effort, and the policy $x = 1$ always remains in place. We obtain these results because the Group captures the Agency in the sense that it receives its preferred outcome, as the Agency fears its proposed policy possibly having to be revised and responds by offering the Group's favorite policy ($x = 1$) to deter the Group from commenting. Interestingly, even though the Group never comments on the proposed policy, on the equilibrium path, its behavior is decisive in determining the final policy outcome.

We complete our analysis of the baseline case by considering societal welfare. Since $\pi = 1$ in any equilibrium, the analysis is straightforward. The three players choose the “correct” policy exactly half of the time. Letting π^* denote the equilibrium outcome, we have $u_{\hat{x}_S}(\pi^*) = \frac{1+q}{2}$. As $q \downarrow 0$, so that the two policies differ maximally, Society’s utility decreases toward a minimum of $\frac{1}{2}$; as $q \uparrow 1$, so that the policies are arbitrarily similar, Society’s utility increases toward a maximum at unity.

In the next two sections, we relax the baseline model’s driving assumptions—the single Group and the agnostic Agency—and compare the results to these austere findings.

3 COMPETING INTEREST GROUPS

The Agency’s policy agnosticism, small positive costs for filing for exemption, and aversion to judicial reversal in the baseline case made it willing to give the lone Group its preferred policy. Now, we consider what happens when the policy-neutral Agency must arbitrate between two Groups with opposing preferences. The Agency’s and Court’s preferences remain unchanged.

The timing and actions for the Groups are the same as in the previous model. We assume that the two groups move simultaneously to exert effort, where Group 1 (G_1) has an ideal point at $\hat{x}_{G_1} = 1$ and Group 2 (G_2) has an ideal point at $\hat{x}_{G_2} = 0$. The Groups’ payoffs, then, are

$$U_{G_1} = u_1(\pi) - \frac{c}{2}e_{G_1}^2,$$

$$U_{G_2} = u_0(\pi) - \frac{c}{2}e_{G_2}^2.$$

As before, neither Group ever sends a message which contradicts its preferred policy, and always reveals its information when it supports its ideal policy. Additionally, effort in the two group case is similar to the one group case, specifically:

Lemma 3. *Let $e_{G_i}^*(x)$ be Group i 's optimal effort when policy x is proposed and notice-and-comment occurs. Given belief μ , the groups exert efforts:*

$$\begin{aligned} e_{G_1}^*(x = 1) &= 0, \\ e_{G_1}^*(x = q) &= \frac{(1 - q)\mu}{c}, \\ e_{G_2}^*(x = 1) &= \frac{(1 - q)(1 - \mu)}{c}, \\ e_{G_2}^*(x = q) &= 0. \end{aligned}$$

Turning to Agency decisionmaking, we immediately see that competition between Groups changes behavior sharply:

Proposition 2. *Define*

$$\underline{d} = \frac{(1 - q)^2 p(1 - p)}{ch}.$$

There always exists a separating equilibrium and the Agency chooses $x = s_A$.

1. *If $d < \underline{d}$, then the Agency does not apply for an exemption and goes through notice-and-comment.*
2. *If $d > \underline{d}$ then the Agency applies for an exemption, which the Court always grants.*

Off the path of play, i.e. $a = 1$ if $d < \underline{d}$ and $a = 0$ if $d > \underline{d}$, if the Agency chooses policy x then the Court and Groups' belief is $\mu_x = p$. Behavior of the Court and Groups is given by lemmata 2 and 3.

That is, the Agency always proposes what it thinks is best for Society—a large contrast from the Agency's behavior in Proposition 1, where $x = 1$ in all cases.²⁵ Additionally, as on the equilibrium path of play one group always expends positive effort, there is now always some chance of the Agency's policy being overturned in equilibrium.

We have unearthed a condition under which the analyst observes exemptions and notice-and-comment rulemaking with effort exerted by groups. Note that the Court’s decision to grant an exemption depends not just on d but also on how much effort the Groups expend, i.e. on whether it anticipates the notice-and-comment stage revealing useful information. If $d > \underline{d}$ the Court *rubberstamps* the Agency’s proposed policy without obtaining any information from outside sources. A glance at \underline{d} provides some simple comparative statics for when notice-and-comment with positive effort is more likely. Specifically, it is more likely as the policies in question become less similar; as the Agency becomes decreasingly competent; and as effort becomes less costly. The first two of these are intuitive, but the third is more subtle. If the cost for Groups to acquire information is low, then the probability of overturning incorrect proposals will be relatively high (more on this in a moment), which in turn means that the Court will want to hear what the Groups have to say. The Agency, which only wants to appeal for exemption when it will be granted, prefers not to attempt to sidestep in this case.

The equilibrium studied here has a “textbook” feel in that Agencies always propose what they think is best for Society. Exemption is also used in a way which seemingly benefits Society. If there is relatively little difference between the two policies, then engaging in the costly notice-and-comment process seems wasteful. Perhaps more importantly, if the Agency is relatively good at learning what is best for Society, then it is best to allow its proposals to go through without further hindrance. Indeed, as the Agency approaches perfect competence, Society’s best outcome is guaranteed. To see why, note that $p \uparrow 1$ implies $\underline{d} \downarrow 0$, and since $d > 0$ the Agency always files for exemption and the Court always grants it. And, since p is close to 1, the Agency almost always learns and then proposes the true state of the world.

Now that notice-and-comment occurs with some positive probability, our analysis of what the Groups do becomes more relevant. Recall that, in the baseline case, the single Group expended effort if the proposed policy was not what it preferred, which only occurred off

the equilibrium path. Here we see a similar effort pattern on the equilibrium path: if $x = 1$, then Group 1 exerts no effort and Group 2 exerts positive effort, and the same in reverse if $x = q$. Letting i be the Group that exerts effort, we have $e_i^* = \frac{(1-p)(1-q)}{c}$. Again, we glean some comparative results, in that the relevant Group's effort level decreases with its marginal cost, policy convergence, and Agency competence. Note, also, that this induces a correlation between appeals for exemption and equilibrium effort levels, as the same conditions that make exemption more likely also reduce the Groups' equilibrium effort levels. In particular, with higher factfinding costs, exemption becomes more likely and effort goes down. The same holds when policies are similar and the Agency is competent.

We again turn our attention to societal welfare for the equilibrium, comparing this extended case to the baseline. Recall that, in the baseline scenario, Society's expected utility was $u_{\hat{x}_S}(\pi^*) = \frac{1+q}{2}$. With competing Groups, Society's utility is contingent on the value of d . To simplify the welfare analysis, suppose d is drawn from some continuous distribution F_d . Letting \tilde{e}_i^* be Group i 's effort level when its less preferred policy is proposed, welfare is given by

$$u_{\hat{x}_S}(\pi^*) = [1 - F_d(\underline{d})] [p + (1-p)q] + F_d(\underline{d}) \left[p + \frac{1-p}{2} (\tilde{e}_1^* + \tilde{e}_2^* + q(2 - \tilde{e}_1^* - \tilde{e}_2^*)) \right].$$

Here the first term represents Society's utility when d is low enough that rubberstamping obtains, and the second term is Society's utility when d is high enough that notice-and-comment rulemaking occurs. Two intuitive inferences from this result are that Society strictly prefers competing Groups to a single Group and notice-and-comment rulemaking to rubberstamping. The intuition behind these inferences is simple. Since $x = s_A$ regardless of whether the Agency files for an exemption or not, Society prefers to have the aggrieved Group overturn an incorrect Agency with some positive probability. Indeed, with low fact-finding costs (resulting in the aggrieved Group almost always expending effort), Society achieves its first-best outcome, assuming that the Agency or the contesting Group is correct about what

is best.

More broadly, the above extension is an ideal case for notice-and-comment rulemaking. A neutral Agency always proposes what it thinks is best for Society, and Groups that disagree can engage in costly fact-finding to overrule the proposal. The competing Groups are key, as they force the Agency to propose what it thinks is best rather than to pool to avoid the wrath of a single Group. Society benefits because, although rubberstamping still obtains in a non-trivial subset of the parameter space, the resulting outcome is still better than with a single Group. Moreover, notice-and-comment sometimes occurs, and it yields an even better outcome than this improved rubberstamping procedure. Since notice-and-comment is more likely when Courts face low costs for rejecting appeals from exempt Agencies, we can also conclude that Society benefits from more active Courts.

Our analysis of notice-and-comment rulemaking with competing Groups and a neutral Agency gives reason for optimism about informal rulemaking and its exemptions. However, in the next section, we provide a harder, and potentially more realistic, test of notice-and-comment rulemaking.

4 BIASED AGENCY

Finally, we modify the previous model by endowing the Agency with an ideal point. Without loss of generality, we assume that the Agency favors the policy change ($\hat{x}_A = 1$), meaning that it agrees with Group 1, so that $U_A = u_1(\pi) - \rho k - \nu a$. However, we assume the Agency still has a non-trivial aversion to being overturned and so $1 - q < k$.

This richer environment yields a more subtle set of results:

Proposition 3. *Define*

$$\begin{aligned}
\bar{d} &= \frac{(1-q)^2}{4c}, \\
\bar{k} &= \frac{1}{2p-1} \left(\frac{c}{1-p} + q - 1 \right), \\
\underline{k} &= \frac{2c - (1-q)(2 - 3p + 2p^2)}{5p - 2(1+p^2)}, \\
\alpha^* &= \frac{(2p-1)(q-1)}{c(k-q) + p(q-1) + q(c - (1-p)(1-q)) + (1-p)(1-q)(pq + (1-k)(1-p))} - 1, \\
\underline{k}^* &= \frac{2c(1-q+\nu) + p(1-q)^2}{p(1-q)}, \\
\beta^* &= \frac{(1-p)p(1-q)(1+k-q) - c(1-q+\nu)}{c(1-q+\nu) - p^2(1-q)(1+k-q)}.
\end{aligned}$$

There exists a perfect Bayesian equilibrium, satisfying our refinement on beliefs, such that:

1. If $d \geq \bar{d}$: The Agency pools on $x = 1$ and applies for an exemption. Beliefs off the path of play are unrestricted.
2. If $d \in (\underline{d}, \bar{d})$ and $k > \underline{k}$: If $s_A = 1$ the Agency chooses $x = 1$ and does not apply for an exemption. If $s_A = q$ the Agency chooses $x = 1$ and does not apply with probability β^* and chooses $x = q$ and applies for an exemption with probability $1 - \beta^*$. Off the path, $x = q$ and $a = 0$ or $x = 1$ or $a = 1$, $\mu = 1 - p$.
3. If $k \leq \underline{k}^*$ or $d < \underline{d}$ and $k \leq \underline{k}$: The Agency pools on $x = 1$ and does not apply for an exemption. Off the path of play, if $x = q$ or $x = 1$ and $a = 1$ then $\mu = 1 - p$.
4. If $d \leq \underline{d}$ and $k \geq \bar{k}$: The Agency does not apply for an exemption and separates and comment based on its signal, that is $x = s_A$.
5. If $d \leq \underline{d}$ and $k \in (\underline{k}, \bar{k})$: The Agency chooses $x = 1$ if $s_A = 1$ and if $s_A = q$ it mixes over $x = 1$ and $x = q$, where it chooses $x = 1$ with probability α^* and $x = q$ with probability $1 - \alpha^*$. Beliefs off the path of play are unrestricted.

Behavior of the Court and Groups is given by lemmata 2 and 3.

The first part of the proposition details a far stronger brand of rubberstamping than that detailed earlier. Not only does the Agency always obtain an exemption, but *it does so while enacting its preferred policy without opposition*. This beneficial state of affairs requires a stricter requirement on the costliness of rejecting exempt Agencies, since $\bar{d} > \underline{d}$. In other words, the Court grants exemptions more often when the Agency is unbiased, as the Court trusts the Agency to propose what is best for Society. Exemption also occurs when d has an intermediate value. However, in this case an exemption requires the Agency to implement its least preferred policy. Here, the Agency's bias creates an asymmetry in the exemption process as the Agency is only exempt when $x = q$ but it must go through notice-and-comment when $x = 1$. Additionally, we can analyze the region in which partial exemption occurs, which is

$$\bar{d} - \underline{d} = \frac{(2p - 1)^2(1 - q)^2}{4c}.$$

As should be obvious, increasing q , in which case the difference between policies decreases, decreases the region for which partial exemption occurs. Alternatively, increasing p , the Agency's competence, increases the amount of partial exemption that occurs in equilibrium.

As with a neutral Agency, the Groups' effort patterns are predictable: if $x = 1$, then only Group 2 exerts effort and, if $x = q$, then only Group 1 exerts effort. This result is identical to the neutral Agency case. However, the Groups no longer expend the same amount of effort conditional on expending effort in the first place. The two Groups expend different effort levels in the semi-separating case without any exemption because of the Agency's potential for bluffing. Simply put, if the Agency proposes $x = 1$, then Group 2—the aggrieved Group—knows that there is some chance that the Agency really received $s_A = q$, which affects their updated beliefs upon observing the proposal. This, in turn, makes the equilibrium effort

levels diverge.

Additionally, taking comparative statics on \bar{d} provides conditions under which the Agency is more likely to achieve its preferred policy without opposition. It is clear that rubberstamping becomes more likely as the policies grow more similar, as the Court believes the Agency is exempt, and as the Groups' marginal costs increase. These are all in line with the analysis of an unbiased Agency with competing Groups. But more interestingly, the likelihood of rubberstamping is *not* a function of the Agency's competence. Since the Agency pools on $x = 1$ regardless of its signal, neither the Court nor the Groups concern themselves with the probability that the Agency has learned the true state of the world.

Analogous to our earlier analysis, the rubberstamping result obtains out of the Court's reflex-like response by which rubberstamping occurs if the costs of rejecting an exempt Agency's claim are too high. This is shown in the right-half of Figure 1, which graphically illustrates our equilibrium outcomes.

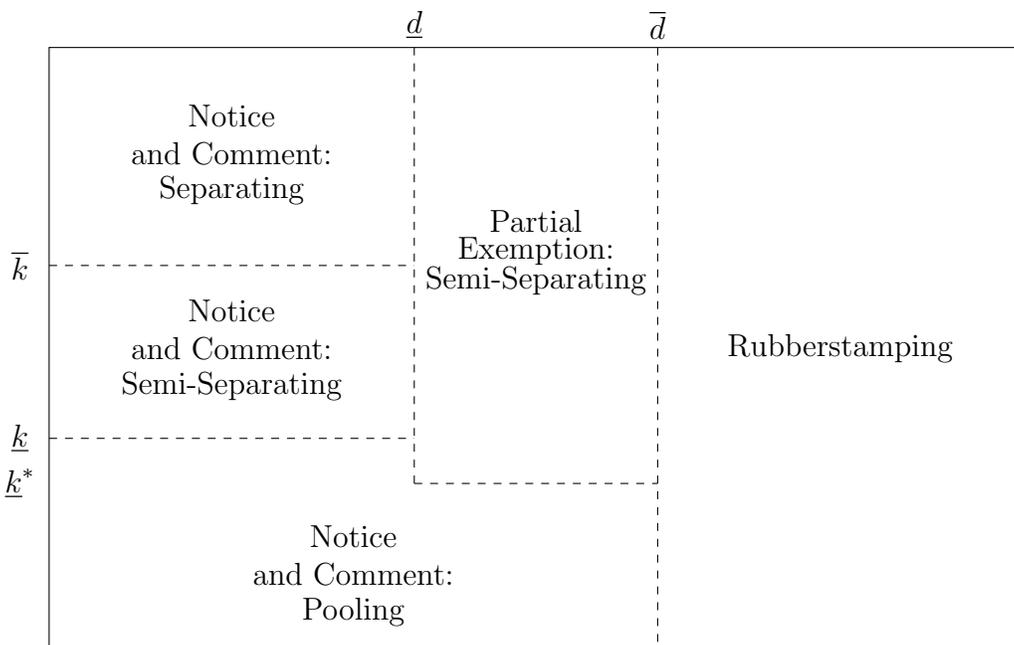


Figure 1: Equilibrium for the case with a biased Agency and competing Groups.

However, now that we have a biased Agency, the strategic environment when rubberstamping does *not* obtain is richer, as is evidenced by the rest of Proposition 3. Indeed,

depending on the Agency’s costs of being overturned, which now represent a weight between her policy preferences and her procedural preferences, we have three possible outcomes. First, and most intuitively, if the Agency faces stiff procedural costs, that is, if $k \geq \bar{k}$ then it separates depending on its signal about the state of the world, just as it did in the case of a neutral Agency. This is shown by the upper-left part of Figure 1. With competing Groups, there remains the possibility of Group 2 engaging in factfinding that can prove the Agency wrong. This possibility deters the Agency from attempting to enact its preferred policy and forces it to do what it thinks is best for Society. Since it believes that its proposal is more likely to be the correct one than not, the Agency does not have much to fear in terms of being overruled.

Conversely, if the Agency does not mind being overturned very much relative to her policy preferences—that is, if $k < \underline{k}^*$ or $k \leq \underline{k}$ and $d < \underline{d}$ —then it attempts to push its preferred policy through. As the Agency prefers to choose policy q and claim exemption over choosing q and potentially having to revise its policy due to notice-and-comment, there is a stronger condition for it to pool on its preferred policy when d is moderate, thus, $\underline{k}^* < \underline{k}$.²⁶ This is a pooling equilibrium (as is shown in the bottom left of Figure 1), as the Agency always proposes its preferred policy, regardless of the signal. Here the Agency’s low procedural costs for being overturned allow it to be somewhat cavalier regarding the notice-and-comment procedure. Though Group 2 may still find that the true state of the world is $\hat{x}_S = q$ instead of $\hat{x}_S = 1$, it is worth taking the risk.

Finally, moderate costs force the Agency to behave in a more nuanced way. If $k \in (\underline{k}, \bar{k})$, the Agency faces real tradeoffs. As expected, if it receives $s_A = 1$, it proposes $x = 1$. However, if it receives $s_A = q$, it can still try to obtain $x = 1$. In other words, the Agency can bluff as, since its costs for being overturned are intermediate, the resulting equilibrium is semi-separating (as represented by the middle left section in Figure 1). With higher costs, it always proposes what it thinks is best for Society whereas, with lower costs, it always tries to get its preferred policy through. This attempt to get its preferred policy despite a bad

signal is conditioned by several factors.. Most intuitively, if the Groups must pay high costs to acquire information (thus decreasing equilibrium effort for aggrieved Groups), then the Agency bluffs more aggressively. Formally,

$$\frac{\partial \alpha^*}{\partial c} = \frac{k(2p-1)(1-q)}{[c(k-q) + p(q-1) + q(c - (1-p)(1-q)) + (1-p)(1-q)(pq + (1-k)(1-p))]^2},$$

which is always positive, as $p \geq 1/2$ and $q \in [0, 1)$. So, on issues where fact-finding is costly—say, for technical matters—the Agency is more likely to try to enact its preferred policy even when it is not best for Society, as it is less likely to be proven wrong.

These results provide an even more nuanced set of results relating the frequency of notice-and-comment rulemaking and the amount of effort Groups exert. When the fact-finding costs are high, the relevant Group exerts relatively little effort. Meanwhile, increased costs make the separating equilibrium less likely to obtain. Instead, both pooling and semi-separating equilibria dominate on such issues. What is more, the semi-separating region features more aggressive bluffing on the Agency’s part. So, on technical matters with high c terms, both notice-and-comment rulemaking is less likely and, in instances it is employed it is more likely to include proposals that align with the Agency’s political goals.

Just as with the d cutpoint, it is useful to consider the comparative statics generated from these cutpoints on the Agency’s procedural costs. Unsurprisingly, both cutpoints \underline{k} and \bar{k} increase as the two considered policies grow more similar. In other words, if policies are not too different, then the separating equilibrium where the Agency proposes what it thinks is best for Society is contingent. Also, Agency competence plays a role even though it is not directly related to many of the dynamics. If the Agency is sufficiently competent or the Groups’ marginal costs are sufficiently low, then more competence empowers the Agency to try the semi-separating or pooling options (which it prefers from a policy standpoint). These results suggest that the effects of Agency competence are themselves contingent on

structural factors like the difference between the policies and the Groups' marginal costs of fact-finding.

As before, we complete our analysis by studying the equilibrium's welfare properties. As the expression of Society's utility in this case is cumbersome (see Appendix) we keep the analysis informal. Here we cannot make the strong claims like those obtained for the previous two models. In the rubberstamping case, Society obtains a benefit equal to that from the baseline model, as the result is again always $\pi^* = 1$. In the case where the Agency pools on $x = 1$ but notice-and-comment is allowed to proceed, Group 2 sometimes learns the true state of the world, which increases Society's welfare. And, in the case where high procedural costs compel the Agency to propose the policy it believes to be best for Society, there remains the safety net of the aggrieved Group, who sometimes finds that the Agency is in error.

We cannot say anything definite, however, because of the semi-separating cases, where the Agency's behavior ensures that $\pi = 1$ more often than Society would prefer. Since $q < 1$ (so that the two policy alternatives are different from one another) and $p < 1$ (so that the Agency isn't perfectly competent), the parameter space that yields the semi-separating behavior has strictly positive measure. Indeed, observe that

$$\bar{k} - \underline{k} = \frac{p(c - (1 - q)(1 - p)^2)}{(2 - p)(1 - p)(2p - 1)},$$

implying that the potentially suboptimal outcome is more likely as either the costs of fact finding or *Agency competence*—increase. Note that

$$\begin{aligned} \frac{\partial \bar{k}}{\partial p} &= \frac{2 \left(1 - \frac{c}{1-p} - q\right)}{(2p - 1)^2} + \frac{c}{(2p - 1)(p - 1)^2}, \\ \frac{\partial \underline{k}}{\partial p} &= \frac{4(1 - p^2)(1 - q) - 2c(5 - 4p)}{(2 + 2p^2 - 5p)^2}. \end{aligned}$$

For c and p sufficiently large, the top expression is positive and the bottom expression is negative, so both of the area's frontiers expand as the Agency becomes more competent. Given that this result is endogenous and arises only in the case of a biased agency, it is a kind of re-derivation of the classic problem of delegation (e.g. ?) in a very different political circumstance than that ordinarily described. Indeed, the chance for skilled, biased agencies to circumvent notice-and-comment rulemaking at Society's potential detriment is very much in line with the reasons many have given for calling for adjustment to this rulemaking procedure.

5 UNOBSERVABLE COSTS

We assume that the players observe the costs imposed by going through notice-and-comment rather than immediately having the policy be implemented. In practice, however, depending on the policy area in question these costs may not be evident. Furthermore, the Agency consists of policy experts and is likely to have a better sense of these costs than the Court. In light of this, we modify the model with competing Groups and an unbiased Agency so that the Court is disadvantaged in observing costs. Specifically, let the Agency observe the cost $d \in \{0, D\}$ and the Court believe that $d = D$ with probability $h \in (0, 1)$ and $d = 0$ with probability $1 - h$. One possible interpretation of these assumptions is that they capture the situation where the Agency claims a good cause and the Court is ex ante unsure, given its uncertainty over d , whether the situation qualifies. Additionally, we alter the Court's decision. If the Agency requests an exemption the Court may either do nothing — and the Agency's policy choice is implemented, $\pi = x$ — or audit the exemption request. If the Court audits it incurs a cost $\Delta > 0$ but learns d , and following the audit the Court may grant the exemption or deny it and force the Agency to go through notice-and-comment. Further, the Agency incurs an additional cost $\delta > 0$ if it applies for an exemption and the exemption is deemed to not be appropriate. We assume if the Court audits the Agency's

request and $d = D$ then D is sufficiently large that the Court deems the exemption justified, however, D is not so large that the Court is willing to grant the exemption based only on the prior h .

Having established the altered model we now characterize the following equilibrium:

Proposition 4. *Define*

$$\epsilon^* = \frac{h}{1-h} \left(\frac{D - \frac{(1-p)^2(1-q)^2}{c}}{\Delta} - 1 \right),$$

$$\gamma^* = \frac{k(1-q)(1+p^2-2p) - c\nu}{k(1-q)(1+p^2-2p) + c\delta}.$$

There exists an equilibrium in which the Agency chooses its policy based on its signal about \hat{x}_S . Thus, $x = s_A$.

1. *If $d = D$ then the Agency always applies for an exemption.*
2. *If $d = 0$ then the Agency applies for an exemption, $a = 1$, with probability ϵ^* and does not apply for an exemption, $a = 0$, with probability $1 - \epsilon^*$.*
3. *The Court, after observing an exemption request, audits the request with probability γ^* and does nothing with probability $1 - \gamma^*$. If the Court learns $d = D$ it allows the exemption and if $d = 0$ it denies the exemption.*

The Groups effort choices are given by lemma 3. Note, all of the Agency's actions are on the path of play.

While in the previous two models exemptions occurred in equilibrium and were always approved by the Court, with asymmetric information about d the Agency sometimes sees such requests denied by the Court. Thus, in policy areas where with a higher degree of uncertainty about the effects of delaying policy implementation we would expect to observe Courts more often rule an Agency's exemption claim was unjustified.

Furthermore, although d , the costs of notice-and-comment, are drawn independent of \hat{x}_S , the socially optimal policy, the Agency's information about \hat{x}_S is still pertinent to the exemption and auditing strategies. With respect to the exemption strategy,

$$\frac{\partial \epsilon^*}{\partial p} = \frac{2(1-q)^2(1-p)}{c} > 0.$$

Thus, as the Agency becomes more competent the $d = 0$ type applies for exemptions more frequently — despite being undeserving. As for auditing,

$$\frac{\partial \gamma^*}{\partial p} = -\frac{2ck(1-p)(1-q)(D+\nu)}{(cD - k(1-p)^2(1-q)^2)^2} < 0.$$

Therefore, as the Agency becomes more competent the Court also audits exemption requests less frequently. These results taken together imply that higher competence should lead to more exemption requests which are audited less frequently. Competent Agencies are able to claim exemptions successfully more often, even though they are no more likely to deserve an exemption compared to less competent Agencies. Interestingly, this result suggests that Agencies that overall claim fewer exemptions may have a higher *proportion* of these exemptions both audited and denied. Furthermore, $\frac{\partial \epsilon^*}{\partial q}, \frac{\partial \epsilon^*}{\partial c} > 0$ and $\frac{\partial \gamma^*}{\partial q}, \frac{\partial \gamma^*}{\partial c} < 0$, and so a similar result holds when we examine the difference between the policies or the Groups' costs of investigation. While these results have a similar feel as the comparative statics on the cut-point \underline{d} an important difference, however, is that in this case the Agency is sometimes able to claim a good cause exemption successfully even when the Court would have deemed it undeserving.

6 DISCUSSION

Understanding the structure and impacts of the rulemaking process has been a continuous subject of interest to social scientists, legal scholars, and policy analysts. To date, most

attention has focused on notice-and-comment per se. However, our analysis demonstrates that ignoring an agency’s ability to employ the exemption option strategically will obfuscate inferences about how rulemaking should impact outcomes and social welfare.

As we show, in a very simple form of theoretical analysis (our baseline model), we would not even expect to see notice-and-comment, but merely rubberstamping consistent with traditional notions of group capture that go back at least as far as ? and which have modest social welfare implications (in that half the time we realize the right result).²⁷ However, while this structure might correspond with some real world situations, it is likely not generally applicable. When we construct more realistic models, with first competing groups—along the lines of virtually all major actions in the contemporary regulatory world—and agencies with their own policy preferences—which would seem to hold for a considerable variety of bureaucratic organizations—we find notice-and-comment occurring, organizations not simply dominating, and various factors influencing when exemption is successfully used, what kind of policy outcomes occur, and how social welfare is impacted.

For example, with only competing groups (and an agnostic agency, which may be seen as best characterizing bureaucracies that attract those without strong intrinsic policy motivations), the Courts cost of rejecting exemptions and beliefs about whether a proposal is legitimately exempt, differences in policy choices, agency competence, and costs of group efforts all are relevant in sensible ways. Furthermore, as in the real world, when exemptions are requested they should rarely be rejected by judges. We also witness a dynamic, similar to that found in the lobbying literature (e.g., ??), where groups that would otherwise lose out are more likely to engage in efforts to change outcomes. Social welfare also improves *vis-à-vis* the baseline case, and notice-and-comment generally is preferable to its exemption by an agency with judicial acquiescence.

Interestingly, when we build in agency preferences, we get what seems, *prima facie*, a very strong result: The agency can quietly rubberstamp its own policy preference by using the exemption process if the court has a sufficiently high cost of rejection. However, there

are limits to the likelihood of this happening, again in sensible ways, with respect to whether the court believes a proposal is legitimately exempt, agency bias (although, strikingly, competence is irrelevant), differences in policy choices, and costs of group efforts. There is also a more subtle, but generally intuitive, dance that the agency plays in trying to push its own policy through in light of group opposition, which is itself a function of organizational costs of acting, assessment of alternative policies, and differences in the policies involved. We also continue to see the rulemaking analogue of counteractive lobbying, by which the group which would otherwise be unhappy with the outcome is more apt to push back. From a social welfare perspective, we find that agencies may, indeed, be able to use the exemption option to reduce societal well-being in favor of achieving their preferred policy outcomes.

In short, from a theoretical point of view, our analysis indicates that, under a reasonable set of assumptions, agencies might be able to use the exemption process for more than mere cost minimization of rulemaking but, rather, to achieve policy outcomes that may reduce social welfare via rubberstamping. It also demonstrates that if exemptions can be limited to rules that are truly interpretative (as compared to even cases where policy differences between proposals are small), then notice-and-comment will otherwise produce better results and the cost-saving advantages of the exemption will be realized. In the same spirit, our analysis shows that a world where agencies would face stiff costs for inappropriately using the exemption and courts would incur a modest price for overturning an exemption request would produce a socially better set of outcomes.

Our results also suggest that not all avoidance, nor all informal rulemaking, is the same. With competing groups, our unbiased agency avoids informal rulemaking to preclude the possibility of being proven wrong downstream. Still, it always proposes what it thinks is best for society, and informal rulemaking serves as a second chance to learn the true state of the world by an incentivized interest group. Conversely, our biased agency avoids informal rulemaking to ensure that its preferred policy is enacted. Unless it pays high procedural costs for being overturned, it can still attempt to push its policy through even with informal

rulemaking. Without considering the proposed rule and the exemption decision simultaneously, the analyst runs the risk of conflating policy-neutral and policy-laden avoidance. This again harkens back to our motivating discussion of the U.S. Treasury. It could well be that Treasury's avoidance when advancing new tax interpretations is indeed qualitatively different from the EPA's and OSHA's avoidance in the face of stiffer guidelines with antagonistic oversight. We should expect, then, to see different avoidance patterns across levels of agency politicization, which remains a lively area of measurement and research (?).

These results may be affected by alternative assumptions about the model's features. We could make a variety of possible changes as some of our modeling choices relate back to our mechanism of interest, so they are relevant for our theoretical investigation, and these alternatives in particular suggest interesting areas for future research.

Exogeneity of agency competence. Our Agency's competence, parameterized as p , is exogenous. That is, the Agency observes the true state of the world at the same rate regardless of the other features of the model, including its exemption status. But, if the Agency is exempt from notice-and-comment rulemaking, then it could well be that it faces smaller incentives to find out the true state of the world, particularly if it has policy preferences. Suppose we amend the model so that the Agency can now pay a (small) cost for a more accurate signal about the state of the world and that this decision is observable. In the baseline case, the Agency will never pay for more information, as it already is captured and its policy agnosticism makes it indifferent over outcomes. When there are competing groups, if the Court's costs for denying exempt Agencies are high enough, then the Agency can skirt having to buy more information by opting for exemption. However, if the Court's costs are very low then, while the agnostic Agency will not buy additional information, as it again does not care about outcomes, the biased Agency will have incentive to work harder. This finding aligns with the extant idea that "neutral competence" is at odds with bureaucrats' incentives (?). More subtly, if the Court's costs are moderate, then the Agency can purchase additional information in the hopes of making exemption more likely, as the

Court has an incentive to allow exemption if it feels comfortable that the new policy is best for Society. Given our assumption that the Court's aim is to maximize societal welfare, this mechanism provides a different motivation for bureaucratic expertise than, say, the legislative motivations explored in detail by ?. Politicization serves as a necessary, but not sufficient, condition for information acquisition, as institutional arrangements must also incentivize appropriate rewards from the Court.

Passive groups. The Groups act in response to the Agency's proposed rule. This is in keeping with the spirit of the notice-and-comment process, along with previous theoretical work. Of course, in the real world, interest groups conduct their business continuously, so they do not need to wait for proposals to rouse to action. In the case of a single Group it does not matter whether it can pre-commit to some effort level that both provides information to the Agency (potentially deterring or enabling it) and that allows hands to be tied. The Agency will proceed in exactly the same way—specifically, the Group will capture the Agency regardless of the timing of the game. This provides a strong and rather troubling theoretical innovation for classical theories of regulatory capture (see, for example, Section II of ?). When we allow for competing Groups, the results are more mixed. In our model of competing Groups but a neutral Agency, pre-commitment serves as a strategic driver of *Group* behavior. As it stands, our model results in one, and only one, Group expending effort, as the Group whose preferred policy is proposed sees no reason to expend effort. However, Agency behavior in this context will operate the same way: it will still propose what they think best for Society. These results comport well with existing empirical findings that suggest that issues with one dominant interest group lead to responsive policy but that lobbying on one side does *not* imply lobbying on the other (?). Future work would do well to consider not just how professionalized interest groups behave with respect to agencies but, rather, how competition among interests affects regulatory outcomes.

Perfect information of group preferences. Particularly on technical matters or with interpretative rules, it may not be obvious what an interest group's preferences will be,

but in our model the Agency and the Court know the Group's preferences perfectly. Our model and extensions allow us to address how allowing there to be uncertainty about Group preferences should affect Agency decisionmaking. Consider a single Group with private information about whether it prefers q or 1. If the Agency's prior belief that a Group has a particular preference is strong enough there are two cases to consider: (1) if the Court's cost for denying exempt Agencies is low, then the equilibrium policy choice and exemption strategy will look similar to the one group model; (2) if the Court's cost is high, however, the Agency will be able to avoid the guesswork of assessing the Group's preferences and will instead opt for an exemption. If the Agency is highly unsure about the Group's preferences then equilibria should look similar to our results for competing Groups.

7 CONCLUSIONS

Depending on a variety of features that likely vary in the real world situationally, such as the number of groups, the motivations of bureaucrats, the competence of agencies, and the complexity of issues, we expect to see different behaviors and outcomes with important implications for social welfare. In the most general sense, our theoretical investigation highlights how those interested in rulemaking should consider the entire process, with special emphasis on the incentives facing the key players.

Of course, we have not theoretically incorporated all the important features that likely vary. Most notably, in this vein, a logical extension of our analysis would be to build in judicial preferences in a manner analogous to how we did so for agencies. Judges might be focused on social welfare or upholding the law on the one hand, or on achieving their own policy preferences on the other.

Finally, we would hope that our analysis would inform empirical investigations of the rule-making process. Analyses might investigate when exemptions will be used and approved, when an agency opts for notice-and-comment over an exemption request, what factors con-

dition what we observe (e.g., whether and which groups will oppose a proposed rule), and whether less politicized agencies conform more closely to our model with neutral agencies and more politicized agencies more closely match our model where agencies are pursuing policy preferences. Collectively, such results would both provide great insight into the rulemaking process and its societal implications and inform theorists in extremely valuable ways.

Notes

¹Floor speech by Senator Pat McCarran, Chairman of the Senate Judiciary Committee, March 12, 1946. Even those with less skin in the game— such as administrative law pioneer Kenneth Culp Davis, who referred to informal rulemaking as “one of the greatest inventions of modern government” (?)—agreed with this assessment. Conversely, by the end of the “era of rulemaking” of the 1970s both ? and ? concurred that the “bloom [was] off the rose.”

²Recommendations of the Administrative Conference of the United States, 1 C.F.R. s305.92-1.

³Interpretative rules clarify existing rules and regulations rather than create new ones. See *Animal Legal Defense Fund v. Quigg* (1989) and *Paralyzed Veterans of America v. West* (1998). They may be thought of as how an agency interprets an existing statute, as in *First National Bank v. Sanders* (1991).

⁴“Federal Rulemaking: Agencies Could Take Additional Steps to Respond to Public Comments.” December 2012.

⁵These figures come from a random sample of final rules published during calendar years 2003–2010. The “good cause” exemption allows agencies to avoid notice-and-comment rulemaking if it would be “impracticable, unnecessary, or contrary to the public interest.” See 5 U.S.C. 533(b)(3)(B).

⁶As William Hughes Mulligan, Judge of the U.S. Court of Appeals of the Second Circuit, puts it in his opinion on *Noel v. Chapman* (1975), exceptions are “enshrouded in considerable smog.”

⁷A few exceptions exist. See *Schwalbach v. Commissioner* (1998), *Griffin Industries Incorporated v. United States* (1992), and the others mentioned in Hickman’s footnote 7.

⁸Small Business Regulatory Enforcement Fairness Act of 1996, §202, Points (1) and (2). Highlighting the tradeoff even further, Point (3) holds that “fundamental changes that are needed in the regulatory and enforcement culture of Federal agencies to make agencies more responsive to small business can be made without compromising the statutory missions of the agencies.”

⁹In reporting on the appointment of Joseph Dear as Assistant Secretary of Labor for Occupational Safety and Health in 1994, the *New York Times* observed that “[OSHA] is one of those government entities...that

looms considerably larger in the ideological imaginations of its constituent interest groups than its teensy size would seem to warrant. It is, depending on one's political proclivities, either failing its mandate to protect the health and safety of the nation's workers or using its regulatory power to bludgeon employers and snuff out the spirit of capitalism. To say that OSHA was not favored in the Reagan-Bush years is to engage in understatement on a massive scale" ("Breathing New Life into OSHA," January 23, 1994). Meanwhile, when Carol Browner was appointed EPA Director in 1992, the *Washington Post* wrote that "young, bright, hard-nosed and a self-proclaimed environmentalist, Browner has the mind and training of an attorney-legislator but the soul of an activist," and that her appointment should be interpreted as a nod to "the ardent environmentalism of Vice President-elect Gore" ("Activist Ex-Aide to Gore Tapped to Direct EPA," December 12, 1992).

¹⁰*EPA 233-F-99-001*: Fact Sheet, EPA Activities Related to the Regulatory Flexibility Act (RFA), as Amended by the Small Business Regulatory Enforcement Fairness Act.

¹¹Statement of Robert Burt, Senior Economist of the Occupational Safety and Health Administration, before the Subcommittee on Government Programs and Oversight and the Subcommittee on Paperwork and Regulatory Reform of the Committee on Small Business, U.S. House of Representatives, April 17, 1997.

¹²It is worth noting that both EPA and OSHA are classified as relatively liberal agencies using the ? measure of agency ideology.

¹³*New Jersey v. EPA* (1980)

¹⁴*NRDC v. Evans* (2003)

¹⁵*Action on Smoking and Health v. Civil Aeronautics Board* (1983).

¹⁶?? provides similar models of interactions among a court and an agency, but does not incorporate interest groups, much less informal rulemaking. ? model executive posturing similarly to our approach to exemption, but do not include public interests.

¹⁷For example, the National Highway Traffic Safety Administration's 2007 proposal to mandate seatbelts on school busses yielded over 100 comments from a variety of stakeholders, including school bus operators, manufacturers, school boards, and former NHTSA administrators. These comments ranged from short responses to long technical reports. Conversely, the 2007 Occupational Safety and Health Administration proposal to enhance sanitation requirements in shipyards yielded many responses, but they were all nearly identical and nearly all came from industry members and associations. Of course, given the arguments above, it should come as no surprise that some rules attract no attention at all: the 2008 Federal Aviation Administration rule regarding the rewiring and testing of the fuel valve of the Bell Helicopter Textron Canada helicopter—which made it to the stage—yielded precisely zero comments.

¹⁸Assuming a 50-50 prior captures the case where the actors ex ante have no informational bias towards

one policy or another. Thus, the Agency’s information determines which policy is believed to be best for society. Additionally, it isolates how the actors’ policy preferences and motivations interact to affect our results, especially those concerned with social welfare, without making outcomes reliant on prior beliefs. While many of the intuitions we derive should continue to hold with a more general prior it would greatly complicate the analysis.

¹⁹It is important for our interests that \hat{x}_S be unknown ex ante — if the ideal policy is known ahead of time there is no reason in the model or substantively for the notice-and-comment process.

²⁰The reader may wonder if Courts are always so attuned to the policy landscape they rule over. ? craft a model where judges are uncertain of the policy implications of their legal principles. Surprisingly, they find that judges often issue broad rulings precisely because of this ignorance.

²¹An alternative interpretation of this assumption is that if a Group obtains evidence to the contrary it sues the Agency. The Agency’s policy is then reviewed by the Court which may choose to overturn the policy or not. As a social welfare maximizer, the Court’s optimal review yields outcomes analogous to the described procedure.

²²An alternative assumption would be to model a policy-neutral Agency as one that tries to maximize Society’s utility. Our assumption, however, facilitates comparability of our results with previous work. This is of particular importance given our more explicit treatment of preferences. Furthermore, our analysis focuses on welfare, and the welfare results should be interpreted remembering that we model an “cost averse-neutral,” rather than a “welfarist-neutral,” Agency. The welfare results that follow should be thought of as a baseline, and it is possible that a welfarist-neutral Agencies may be able to generate better outcomes for society.

²³Alternatively, if the final stage is interpreted as judicial oversight this cost represents an aversion to negative judicial review.

²⁴The assumption that $c > \frac{1-q}{2}$ avoids corner solutions to the Group’s problem which are cumbersome and do not generate any additional substantive insights.

²⁵Of course pooling equilibria may still exist. However, as previously mentioned and is standard in these types of models, we focus on when separation can be supported in equilibrium.

²⁶Note: By $c > \frac{1-q}{2}$ we have $\underline{k}^* > 1 - q$. Thus, this set is always non-empty even with our assumption that $k > 1 - q$.

²⁷Of course, in traditional discussions of capture, it is implicitly thought that social welfare is virtually never maximized for any given policy choice.

APPENDIX

We begin by proving lemmata 2 and 3. We will rely on these lemmata extensively when we subsequently prove our findings regarding Court and Group behavior and invoke these freely when the analyses below arrives at Court and Group behavior.

Proof of Lemma 3. Consider Group 1's problem following $x = 1$. If the Group discovers information opposing the policy, then it does not reveal its signal and so its action does not influence the final outcome. If it discovers information supporting the policy, it reveals its signal and the same policy remains in place; however, the policy would have remained in place anyway. As such, regardless of its signal, the Group does not influence the final outcome, so exerting effort is costly but does not otherwise change its expected utility. Thus, $e_{G_1}^*(x = 1) = 0$. A similar argument shows that if $x = q$ then it is optimal for Group 2 to exert no effort.

If $x = q$, Group 1's expected utility of exerting effort is given by

$$e_{G_1}(\mu + (1 - \mu)q) + (1 - e_G)q - \frac{c}{2}e_G^2,$$

and maximization yields a unique optimal effort $e_{G_1}^*(x = q) = \frac{(1-q)\mu}{c}$.

Likewise, if $x = 1$, then Group 2's expected utility for exerting effort is

$$e_{G_2}(\mu q + (1 - \mu)) + (1 - e_G)q - \frac{c}{2}e_G^2,$$

and maximizing with respect to e_{G_2} yields $e_{G_2}^*(x = 1) = \frac{(1-q)(1-\mu)}{c}$. □

Proof of Lemma 2. If the Court believes that $\hat{x}_S = x$ with probability μ_x then its expected utility for granting the exemption when the Agency proposes policy x is

$$\mu_x + (1 - \mu_x)q.$$

On the other hand, its expected utility for denying the exemption is

$$e_{G_i}^*(x) + (1 - e^*(x))(\mu_x + (1 - \mu_x)q) - d,$$

where G_i is the Group which is ideologically opposed to policy x . Comparing terms and rearranging shows that the Court grants the exemption if $d \geq e_{G_i}^*(x)(1 - (\mu_x + (1 - \mu_x)q))$. Using lemma 3 to substitute for $e_{G_i}^*(x)$ yields the result. \square

Proof of Proposition 2

According to the proposition the Agency separates and chooses its policy so that $x^* = s_A$. If $d \geq \underline{d}$ it applies for an exemption. Otherwise, it goes through notice-and-comment.

If the Agency separates following its signal and $x = q$ we have that (both on and off the path of play, by our first refinement) $\mu = 1 - p$. Using Lemma 3 and substituting in $\mu = 0$, we have $e_{G_1}^*(x = q) = \frac{(1-q)(1-p)}{c}$. Otherwise, if $x = 1$, we have $\mu = p$, and $e_{G_2}^*(x = 1) = \frac{(1-q)(1-p)}{c}$. From here, using lemma 2 we see that the Court will grant an exemption if

$$d \geq \frac{(1-p)^2(1-q)^2}{hc},$$

as required.

Finally, we must show that the Agency's strategy is optimal. The Agency's strategy depends on its signal s_A . To complete the proof, we check that the Agency does not want to deviate for each relevant area of the parameter space.

1. $d \geq \underline{d}$.

In this case, if the Agency applies for an exemption the Court allows it, and so the Agency's expected utility for applying for an exemption after choosing $x = s_A$ is $-\nu$. As $p < 1$ and one Group always exerts positive effort during notice-and-comment, if the Agency does not apply for the exemption this always leads to a positive probability of incurring the cost k . Thus, for a ν that is assumed to be sufficiently small but positive playing the given strategy gives the Agency its highest payoff following each signal. Therefore, the Agency does not have a profitable deviation.

2. $d < \underline{d}$.

Here the Court does not grant an exemption and the Agency's expected payoff from choosing x and having its exemption application denied is the same as not apply for an exemption at all minus the additional small cost ν . Thus, if the Agency knows its request will be denied it strictly prefers to not apply. To finish the proof, we only need to show that, for each signal, the Agency does not want to deviate and choose a different policy. We check deviations for the Agency after it gets the signal $s_A = i$ for $i, j \in \{q, 1\}$ and $i \neq j$. The two expected utilities are

$$EU(x = i | s_A = i) = -e_{G_j}^*(i)(1 - p)k,$$

$$EU(x = j | s_A = i) = -e_{G_i}^*(j)pk.$$

Therefore, the Agency will not want to deviate from choosing $x = i$ if

$$\begin{aligned} \frac{-(1 - p)^2(1 - q)k}{c} &\geq \frac{-p(1 - p)(1 - q)k}{c} \\ &\Leftrightarrow p \geq 1 - p. \end{aligned}$$

This condition always holds, as we've assumed $p \geq \frac{1}{2}$.

We conclude that the strategies and beliefs as specified constitute an equilibrium.

Proof of Proposition 3

The proposition specifies beliefs (using the given refinements) as necessary for off the path of play and beliefs on the path of play can be found straightforwardly using Bayes' rule. Thus, using lemmata 3 and 2 and substituting in these beliefs fully characterizes the actions of the Groups and Court. To demonstrate that proposition 3 characterizes a perfect Bayesian equilibrium we show that the actions described for the Agency are optimal. We separate this into five sections, one for each area of the parameter space that exhibits different behavior.

1. Let $d \geq \bar{d}$. In this case we assume the Agency chooses $x = 1$ for either signal and follows this by applying for the exemption. Off the path of play the Court and Groups may have any belief about the Agency's signal. If the Agency petitions the Court for an exemption from the notice-and-comment process and chooses $x = 1$ we have $\mu = 1/2$. By lemma 2 the Court will grant an exemption in this case if $d \geq \frac{(1-q)^2}{4c}$.

Thus, since $d \geq \bar{d}$, the Court will grant an exemption if the Agency applies for one. Therefore, we have that $EU_A(x = 1|s_A) = 1 - \nu$. As this is the Agency's highest possible policy payoff, if it deviates it can do no better in terms of policy payoffs. Depending on the Court's off path beliefs deviating either results in a positive probability of incurring the cost k or of having its least preferred policy implemented. As such, for sufficiently small but strictly positive ν , the Agency cannot do better by deviating.

Before continuing to the next section, we explain why we will largely ignore certain other possibilities for exemption in equilibrium. As in this parameter space the Court would also grant an exemption if the Agency played a pooling strategy on q , it is possible that there exists an equilibrium in which the Agency pools on policy q and applies for an exemption. However, given that this type of equilibrium requires a

selection on off path beliefs, whereas our equilibrium does not, and a pooling on q equilibrium is suboptimal for the Agency, we focus on the equilibrium where the Agency pools on $x = 1$.

Second, note that there cannot exist an equilibrium in which the Agency *fully* separates and is granted an exemption following either policy choice. To see this, assume one exists. But following the signal $s_A = q$ the Agency can profitably deviate to $x = 1$, be granted an exemption, and get its preferred policy. A similar argument rules out an equilibrium in which the Agency separates in its policy choice and the Court grants an exemption following $x = 1$ but not after $x = q$. Finally, there cannot be an equilibrium in which the Agency always chooses $x = s_A$ and the Court grants an exemption following $x = q$ but not after $x = 1$. This is because when choosing $x = 1$ if the Agency deviates to apply for an exemption the Court (by our first restriction on off path beliefs) the Court knows that $s_A = 1$ and is willing to exempt policy 1. Therefore, applying for an exemption when $s_A = 1$ would be a profitable deviation for the Agency. However, as noted in the proposition, there does exist a semi-separating equilibrium which features exemption.

2. Let $d \leq \underline{d}$ and $k \geq \bar{k}$. We show there exists a separating equilibrium. As $d < \underline{d}$ lemma 2 implies the Court will never grant an exemption. Therefore, the Agency does not apply for an exemption, as this would always be rejected at a cost of ν . What remains is to check that (a) if $s_A = 1$, then the Agency does not want to deviate from $(1, N)$ to (q, N) ; and (b) if $s_A = q$, then the Agency does not want to deviate from (q, N) to $(1, N)$.

When $s_A = 1$ the Agency's expected utilities for $x = 1$ and $x = q$ are given by

$$\begin{aligned}
EU_A(1, N|s_A = 1) &= e_{G_2}^*(1)(p + (1 - p)(q - k)) + (1 - e_{G_2}^*(1)), \\
EU_A(q, N|s_A = 1) &= e_{G_1}^*(q)(p(1 - k) + (1 - p)(q)) + (1 - e_{G_1}^*(q))q.
\end{aligned}$$

For the Agency to not want to deviate, it must be that

$$EU_A(1, N|s_A = 1) \geq EU_A(q, N|s_A = 1). \quad (1)$$

Using Lemma 3 and the first restriction on off path beliefs we have that $e_{G_1}^*(q) = e_{G_2}^*(1) = e^*$. Thus, Condition (1) will hold if and only if:

$$e^*(p - p(1 - k) + (1 - p)(q - k) - (1 - p)q) + (1 - e^*)(1 - q) \geq 0.$$

Simplifying yields

$$(2p - 1)e^*k + (1 - e^*)(1 - q) \geq 0.$$

As $p \geq \frac{1}{2}$ and $e^* \in [0, 1]$, Condition (1) holds, as required.

If $s_A = q$ the Agency's expected utilities for $x = 1$ and $x = q$ are given by

$$\begin{aligned}
EU_A(1, N) &= e_{G_2}^*(1)(p(q - k) + (1 - p)) + (1 - e_{G_2}^*(1)), \\
EU_A(q, N) &= e_{G_1}^*(q)(pq + (1 - p)(1 - k)) + (1 - e_{G_1}^*(q))q.
\end{aligned}$$

For the Agency to not want to deviate, it must be that

$$EU_A(1, N|s_A = q) \leq EU_A(q, N|s_A = q). \quad (2)$$

Again we have that $e_{G_1}^*(q) = e_{G_2}^*(1) = e^*$. Thus, Condition (2) holds if:

$$e^*(p(q - k) - pq + (1 - p) - (1 - p)(1 - k)) + (1 - e^*)(1 - q) \leq 0.$$

Substituting for e^* yields

$$k \geq \frac{1}{2p - 1} \left[\frac{c}{1 - p} - (1 - q) \right].$$

Since $k \geq \bar{k}$, Condition (2) holds, as required.

3. Let $d \leq \underline{d}$ and $k \leq \underline{k}$. We want to find when there exists a pooling equilibria in which the Agency always chooses its preferred policy, $x = 1$, and goes through notice-and-comment. Since $d < \bar{d}$ and the Agency pools on policy $x = 1$ from lemma 2 and our restriction that off path the Court believes the deviation came from the $s_A = q$ type, we have that if the Agency chooses $x = 1$ and applies for an exemption the Court will deny it. Thus, after choosing $x = 1$ the Agency will not deviate from $a = 0$ to $a = 1$. So we have that $EU_A(x, E) = EU_A(x, N) - \nu < EU_A(x, N)$ for $x \in \{q, 1\}$. Therefore, we must check that, for any $s_A \in \{1, q\}$, the Agency chooses $x = 1$. We consider each signal in turn.

If $s_A = 1$, the Agency's expected utilities are

$$\begin{aligned}
EU_A(1, N|s_A = 1) &= e_{G_2}^*(1)(p + (1 - p)(q - k)) + (1 - e_{G_2}^*(1)), \\
EU_A(q, N|s_A = 1) &= e_{G_1}^*(q)(p(1 - k) + (1 - p)(q)) + (1 - e_{G_1}^*(q))q.
\end{aligned}$$

For the Agency to not want to deviate, it must be that

$$EU_A(1, N|s_A = 1) \geq EU_A(q, N|s_A = 1). \quad (3)$$

If $x = 1$ beliefs are pinned down and $e_{G_2}^* = \frac{(1-q)}{2c}$. As q is off the path, beliefs are unrestricted. However, given the precision of the Agency's signal it must be that the groups' belief that $\hat{x}_S \in [1/2, \bar{p}]$, the most stringent condition for this to be an equilibrium, occurs when Group 1 thinks it is most likely that the state of the world is 1. Hence, the largest this effort could possibly be is $e_{G_1}^* = \frac{(1-q)p}{c}$.

As $p \geq \frac{1}{2}$ and $e^* \in [0, 1]$, Condition (3) holds, as required.

If $s_A = q$, the Agency's expected utilities are

$$\begin{aligned}
EU_A(1, N|s_A = q) &= e_{G_2}^*(1)(p(q - k) + (1 - p)) + (1 - e_{G_2}^*(1)), \\
EU_A(q, N|s_A = q) &= e_{G_1}^*(q)(pq + (1 - p)(1 - k)) + (1 - e_{G_1}^*(q))q.
\end{aligned}$$

For the Agency to not want to deviate, it must be that

$$EU_A(1, N|s_A = q) \leq EU_A(q, N|s_A = q). \quad (4)$$

Again $e_{G_1}^*(q) = e_{G_2}^*(1) = e^*$. Thus, Condition (4) holds if:

$$e^*(p(q - k) - pq + (1 - p) - (1 - p)(1 - k)) + (1 - e^*)(1 - q) \leq 0.$$

Substituting for e^* and simplifying,

$$k \leq \frac{2c + q - 1}{2p - 1} = \underline{k}.$$

As $k < \underline{k}$ in this case, we have that Condition (4) holds, so the Agency will not deviate from $x = 1$ and $a = N$, as required.

4. $k \leq \underline{k}^*$ and $d \in (\underline{d}, \bar{d})$. The analysis is similar to the previous case, only here if the Agency deviates to q and claims an exemption this will not be overturned by the Court. As $k > 1 - q$ we have that the Agency's most profitable deviation is to choose q and claim an exemption. We need to check that the Agency does not want to deviate after observing $s_A = q$. Its expected utility for deviating is $q - \nu$ while its expected utility for choosing $x = 1$ is $e_{G_2}^*(1)(p(q - k) + (1 - p)) + (1 - e_{G_2}^*(1))$, where $e_{G_2}^*(1) = \frac{1 - q}{2c}$. Comparing terms yields that the Agency will not deviate if $k \leq \frac{2c(1 - q + \nu) + p(1 - q)^2}{p(1 - q)}$ which holds by assumption.

5. Let $k \in (\underline{k}, \bar{k})$ and $d < \underline{d}$. We have already found when there exists a fully separating equilibrium as well as when the Agency is willing to pool. Thus, we characterize a semi-separating equilibria. In this case, after $s_A = 1$ the Agency chooses $x = 1$ and after $s_A = q$ the Agency chooses $x = 1$ with probability α^* and $x = q$ with probability $1 - \alpha^*$. Using lemma 3 we have that if $x = q$ Group 1's optimal effort is $e_{G_1}^*(q) = \frac{(1 - p)(1 - q)}{c}$ and if $x = 1$ then $e_{G_2}^*(1) = \frac{(1 - p + \alpha^*(1 - p))(1 - q)}{c}$.

First, we show that if $s_A = q$, then the Agency is willing to mix and play $(1, N)$ with probability α^* and (q, N) with probability $1 - \alpha^*$. Again, the relevant expected utilities are

$$\begin{aligned} EU_A(1, N|s_A = q) &= e_{G_2}^*(1)(p(q - k) + (1 - p)) + (1 - e_{G_2}^*(1)), \\ EU_A(q, N|s_A = q) &= e_{G_1}^*(q)(pq + (1 - p)(1 - k)) + (1 - e_{G_1}^*(q))q. \end{aligned}$$

For the Agency to mix the efforts of the Groups must make the Agency indifferent, thus,

$$EU_A(q, N|s_A = q) = EU_A(1, N|s_A = q). \quad (5)$$

Substituting and eliminating terms yields

$$e_{G_2}^*(1) = EU_A(q, N|s_A = q) + k - q.$$

Substituting again and rearranging we can rewrite the above equality as

$$1 - \frac{c}{1 - q}(EU_A(q, N|s_A = q) + k - q) = \frac{p + \alpha^*(1 - p)}{1 + \alpha^*}.$$

Solving for α^* and substituting for $EU_A(q, N|s_A = q)$ gives us that Condition (5) holds if and only if

$$\alpha^* = \frac{(2p-1)(q-1)}{c(k-q) + p(q-1) + q(c - (1-p)(1-q)) + (1-p)(1-q)(pq + (1-k)(1-p))} - 1,$$

which holds by definition. Therefore, given the behavior of the Groups, the Agency is indifferent between choosing $x = 1$ and $x = q$ when $s_A = q$. As such, it can mix with any probability and we choose that probability to be α^* (this then induces the necessary effort level from the second Group, which avoids mixing due to its continuous strategy set).

Next, we show that if $s_A = 1$, then the Agency prefers to choose $x = 1$ to $x = q$. Its expected utilities are

$$\begin{aligned} EU_A(1, N|s_A = 1) &= e_{G_2}^*(1)(p + (1-p)(q-k)) + (1 - e_{G_2}^*(1)), \\ EU_A(q, N|s_A = 1) &= e_{G_1}^*(q)(p(1-k) + (1-p)q) + (1 - e_{G_1}^*(q))q. \end{aligned}$$

For the Agency to not want to deviate, it must be that

$$EU_A(1, N|s_A = 1) \geq EU_A(q, N|s_A = 1). \quad (6)$$

Note that $EU_A(1, N|s_A = 1)$ is a convex combination of $p(1) + (1-p)(q-k)$ and 1, while $EU_A(q, N|s_A = 1)$ is a convex combination of $p(1-k) + (1-p)q$ and q . Clearly, 1 is greater than or equal to both potential payoffs in $EU_A(q, N|s_A = 1)$. Therefore, a sufficient condition for Condition (6) to hold is that $p + (1-p)(q-k) \geq p(1-k) + (1-p)q$ and $p + (1-p)(q-k) \geq q$. The first inequality reduces to $p \geq \frac{1}{2}$, which holds by assumption of $p \geq \bar{p}$. The second inequality reduces to $p \geq \frac{k}{1+k-q}$, which again holds

by assumption of $p \geq \bar{p}$. Therefore, following $s_A = 1$, the Agency does not want to deviate from its given strategy.

6. Let $d \in (\underline{d}, \bar{d})$ and $k \geq \underline{k}$. Groups' behavior given in lemma. After observing $x = q$ the Court places probability 1 on the Agency having observed $s_A = q$ and, from our analysis in proposition 2, we have that the Court will grant the exemption. If $x = 1$ and the Agency applies for an exemption the Court will deny it. This is because $x = 1$ and $a = 1$ is off the path and the Court places probability 1 on $s_A = q$. As $d < \bar{d}$ the Court will not grant the exemption. Thus, the Agency does not want to deviate from an exemption strategy. Does it want to deviate from its policy strategy? If $s_A = 1$, deviating to q both increases the probability of being overturned and of its least preferred policy being enacted. Thus, we just need to check that when $s_A = q$ the Agency is indifferent between choosing q and being exempt and choosing $x = 1$ and going through notice-and-comment. Note, by $1 - q < k$ the Agency prefers exemption when choosing $x = q$ over notice-and-comment with $x = q$. Using the lemma 3 and the fact that the Groups anticipate the Agency mixing with probability β^* when $s_A = q$ we get that the Agency's expected utility for choosing policy $x = 1$ is

$$e_{G_2}^*(1)(p + (1 - p)(q - k)) + (1 - e_{G_2}^*(1)),$$

with $e_{G_2}^*(1) = \frac{(1 - \frac{p + \beta^*(1 - p)}{1 + \beta^*})(1 - q)}{c}$. Its expected utility for choosing $x = q$ is then

$$q - \nu.$$

For the Agency to mix it needs to be indifferent. Setting these expected utilities equal to one another and solving yields that the Agency is indifferent at β^* , as required.

For the welfare analysis, let F_d be the distribution of d , \tilde{e}_i^* be Group i 's effort level when its less preferred policy is proposed, and F_k be the distribution of k . Then, Society's utility is given by

$$\begin{aligned}
u_{\hat{x}_S}(\pi^*) &= [1 - F_d(\bar{d})] \frac{1+q}{2} \\
&+ \left(F_d(\bar{d})F_k(\underline{k}^*) + F_d(\underline{d})[F_k(\underline{k}) - F_k(\underline{k}^*)] \right) \left(\frac{1 + \tilde{e}_2^* + (1 - \tilde{e}_2^*)q}{2} \right) \\
&+ [F_d(\bar{d}) - F_d(\underline{d})][1 - F_k(\underline{k}^*)] \left(\frac{p + (1-p)q}{2} + \Gamma \right) \\
&+ F_d(\underline{d})[F_k(\bar{k}) - F_k(\underline{k})]\Theta \\
&+ F_d(\underline{d})[1 - F_k(\bar{k})] \left(p + \frac{1-p}{2}(\tilde{e}_1^* + \tilde{e}_2^* + q(2 - \tilde{e}_1^* - \tilde{e}_2^*)) \right),
\end{aligned}$$

where

$$\Theta = \left[\frac{p(1 + \alpha^*(\tilde{e}_2^* + (1 - \tilde{e}_2^*)q) + (1 - \alpha^*)) + (1-p)(\alpha^* + (1 - \alpha^*)(\tilde{e}_1^* + (1 - \tilde{e}_1^*)q) + \tilde{e}_2^* + (1 - \tilde{e}_2^*)q)}{2} \right],$$

$$\Gamma = \beta^*[\tilde{e}_2^* + (1 - \tilde{e}_2^*)(p + (1-p)q)] + (1 - \beta^*)[\tilde{e}_1^* + (1 - \tilde{e}_1^*)(pq + (1-p))].$$

Proof of Proposition 4

After observing x and $a = 0$ the Court and Groups update that $s_A = x$ and $d = 0$. If observing x and $a = 1$ the Court and Groups update that $s_A = x$ and $d = D$ with probability $\lambda = \frac{h}{h+(1-h)\epsilon^*}$ and that $d = 0$ with probability $1 - \lambda$.

The efforts of the Groups follow from lemma 3. That the Agency is willing to separate in its policy choice based on its signal follows a similar argument as in the proof of Proposition 2. For the Court to be willing to mix after the Agency claims an exemption it must be indifferent between auditing and doing nothing. Its expected utility for doing nothing, after the Agency chooses policy $x = s_A$ and applies for an exemption, is

$$e_{G_j}^*(s_A) + (1 - e_{G_j}^*(s_A))(p + (1 - p)q) - \lambda D,$$

while its utility for auditing the request is

$$\lambda(p + (1 - p)q) + (1 - \lambda)(e_{G_j}^*(s_A) + (1 - e_{G_j}^*(s_A))(p + (1 - p)q)) - \Delta.$$

As the Agency chooses its policy based on its signal we get $e_{G_j}^*(i) = \frac{(1-p)(1-q)}{c}$. Substituting for Group effort, setting these terms equal, and solving yields the mixing probability ϵ^* given in the proposition.

Finally, we need that for either signal $s_A \in \{1, q\}$ if $d = D$ the Agency claims an exemption and for $d = 0$ the Agency is indifferent between choosing to go through notice-and-comment or applying for an exemption. If $d = D$ and the Agency claims it is exempt its request is never denied as either the Court does nothing or it audits the request and then grants it. As the Agency is policy agnostic and ν is assumed sufficiently small it will always prefer this over going through notice-and-comment and incurring a positive probability of getting overturned. When $d = 0$ we need that the Agency is indifferent between voluntarily going through notice-and-comment and claiming an exemption. Given the Court audits with probability γ the Agency's expected utility for claiming an exemption and choosing $x = s_A$ when $d = 0$ is

$$-\gamma(e_{G_j}^*(s_A)(1 - p)k - \delta) - \nu,$$

while its expected utility for going through notice-and-comment is

$$-e_{G_j}^*(s_A)(1-p)k.$$

As before, substituting for $e_{G_j}^*(s_A)$, setting these equal, and solving yields the optimal auditing strategy γ^* given in Proposition 4.