Signaling Ability Through Policy Change

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Abstract

I study a model in which a voter is uncertain about an incumbent's ability to develop high-quality policies. The incumbent develops a policy reform to an inherited status quo, observes its quality, and decides whether to implement it. The voter observes this decision but not the quality of the reform and decides whether to reelect the incumbent. I show that the incumbent engages in ability signaling: she implements the reform even if it is lower quality than what she would implement under complete information about her ability. I then show that requiring the incumbent to secure the agreement of a second policymaker with whom she is electorally competing creates the opposite distortion: the second policymaker blocks reforms he would allow under complete information. Finally, I demonstrate a novel, informational logic for ideological moderation or ideological extremism in unilateral policymaking.

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1 Introduction

During the 2024 presidential debate between Vice President Kamala Harris and then-former President Donald Trump, Trump was asked about his plans to reform the Affordable Care Act (ACA) if elected. He replied:

> Obamacare was lousy health care. Always was. It's not very good today. We're looking at different plans. If we can come up with a plan that's going to cost our people, our population less money and be better health care than Obamacare, then I would absolutely do it. But until then I'd run it as good as it can be run.[1]

Taken at face value, two features of this response stand out. First, the response alludes to an ongoing effort to develop a reform to the ACA.[2] Second, Trump committed to only implementing a reform if it provides better healthcare at a lower cost. That is, he will only implement a reform if it is higher quality than the "lousy healthcare" of the ACA.

Suppose voters care about the ability of their policymakers to develop high-quality policies but cannot directly observe this ability. Suppose further that voters cannot immediately determine the quality of a reform. What should they infer about the Trump administration's ability to develop high-quality healthcare policies if it does or does not reform the ACA? How do these inferences depend on ideology? How does what voters learn affect the Trump administration's incentives to pursue reform? And how does what voters learn affect congressional Democrats' incentives to block reform?

In this paper, I explore such questions using a game-theoretic model in which policies have ideology and quality. In the baseline model, an incumbent policymaker, driven by policy goals and the prospect of reelection, decides whether to reform an inherited policy of publicly known ideology and quality, replacing it with a policy matching her ideological ideal point. Before deciding whether to implement the reform, the incumbent privately learns the reform's quality, which is drawn from a distribution that depends on her unobserved ability. Notably, a higher-quality reform is more likely to be developed by a high-ability policymaker. A voter observes the incumbent's decision but not the quality of the reform and reelects the incumbent if the probability she has high ability is sufficiently high. Otherwise, the voter elects a challenger.

I begin by analyzing the complete information benchmark where the voter knows the incumbent's ability. In this case, the incumbent's decision whether to implement the reform

[1] Hoffman (2024)

[2] Additional evidence of this effort comes from the Heritage Foundation's Project 2025, which outlines a variety of reforms of the ACA, and comments made by House Speaker Mike Johnson, in which he committed to changing the ACA, "The ACA is so deeply ingrained, we need massive reform to make this work, and we got a lot of ideas on how to do that." (The Heritage Foundation, 2024; Diamond, 2024).

does not reveal information about her type and, as a result, does not affect the election's outcome. Hence, the incumbent implements the reform when her ideological benefit from doing so exceeds the net change in quality. I then turn to the model where the incumbent's type is unknown. Sometimes, the incumbent's equilibrium strategy coincides with her strategy in the complete information benchmark. In the remaining cases, she implements reforms that are lower quality than those she implements in the benchmark. This leads to additional policy change, which I refer to as *ability signaling*, and lower expected policy quality.

Whether ability signaling arises in equilibrium depends on the interaction between the ex-ante state of the election and the incumbent's ideological preferences vis-à-vis the status quo. To illustrate this connection, suppose the incumbent begins the game trailing the challenger. That is, given the voter's prior belief about the probability that the incumbent has high ability, the voter will elect the challenger. In this case, the incumbent can only win reelection if she implements the reform since, in any equilibrium, implementing the reform is a signal of high ability while retaining the status quo is a signal of low ability. However, whether implementing the reform is a sufficiently strong signal of ability to warrant reelection depends on the incumbent's ideological opposition to the status quo. When she is very ideologically opposed to the status quo, implementing the reform is a weak signal of ability; the voter recognizes that because the incumbent dislikes the status quo, she is willing to implement a low-quality reform. In contrast, when the incumbent is not very opposed to the status quo, implementing the reform is a strong signal of ability since the voter understands that without a strong ideological aversion to the status quo, the incumbent only implements high-quality reforms. Hence, when the incumbent trails, ability signaling arises when the incumbent is not too ideologically opposed to the status quo. The opposite is true when the incumbent leads: ability signaling arises when the incumbent *is* ideologically opposed to the status quo.

Since at least the early days of the United States, some have worried that there is a connection between elections and excessive policy change (Madison, 1788a; de Tocqueville, 2003). One argument for this depends on policymakers' ideological preferences. In Federalist 62, James Madison writes:

> The mutability in the public councils arising from a rapid succession of new members, however qualified they may be, points out, in the strongest manner, the necessity of some stable institution in the government. Every new election in the States is found to change one half of the representatives. From this change of men must proceed a change of opinions; and from a change of opinions, a change of measures. But a continual change even of good measures is inconsistent with

> every rule of prudence and every prospect of success.[3]

My analysis shows this fear is warranted. In the complete information benchmark, the incumbent's ideological opposition to the status quo incentivizes additional reform beyond what would be done simply to improve policy quality. The same is true in the incomplete information game. However, this model highlights an additional connection between elections and excessive reform: the desire of a policymaker to signal her ability to develop high-quality policies.

In the baseline model, I assume the incumbent's reform has her preferred ideology. However, I also analyze the model where the incumbent publicly chooses the ideology of her reform before privately learning its quality. Despite being able to reform the status quo unilaterally, for some regions of the parameter space, the incumbent develops a reform with an ideology that differs from her ideological ideal point. Importantly, she does not do this to move the ideology of the reform closer to a pivotal voter's ideological ideal point but to affect the information conveyed by her decision whether to reform the status quo. As a result, she sometimes wins reelection with a higher probability than if she develops a reform with her preferred ideology. The model thus highlights an informational logic for ideological moderation or ideological extremism in unilateral policymaking.

In many cases, an incumbent policymaker cannot reform the status quo unilaterally; instead, she must secure agreement from other policymakers who might have different ideological preferences. Moreover, in many cases, these policymakers must agree under the shadow of a future election. For example, consider the majority and minority parties interacting in the Senate. I conclude by studying an extension of the baseline model where the incumbent chooses whether to propose the reform, which is implemented if and only if the challenger agrees. Before deciding, the challenger observes the quality of the incumbent's reform.

Relative to the complete information benchmark of this extension, when there is uncertainty about the incumbent's ability, the challenger engages in *ability blocking*: she blocks some reforms that she would allow under complete information about the incumbent's ability because blocking reform may be electorally beneficial. This distortion leads to a lower probability of reform and lower expected policy quality.

This extension also reveals that the need to secure the challenger's agreement to reform the status quo can be electorally beneficial for the incumbent in that she wins reelection in cases where she is unable to if she can unilaterally implement the reform. Because the challenger blocks some reforms that the incumbent would make if she could act unilaterally,

[3] Madison (1788a)

securing the challenger's agreement is a stronger signal of high ability, and failing to secure the challenger's agreement is a weaker signal of low ability. Hence, this model provides a microfoundation for the conventional wisdom that voters have a preference for bipartisanship (Friedman, 2012).

In sum, I show that when there is uncertainty about a policymaker's ability to develop high-quality policies, and she can unilaterally reform the status quo, she engages in ability signaling. This distortion results in excessive policy change and lower expected policy quality. Under an institution that requires agreement between two policymakers to reform the status quo, ability signaling is replaced by a different distortion, ability blocking: the second policymaker blocks reforms he would allow under complete information. This second distortion also leads to lower expected policy quality relative to the complete information benchmark. Hence, when designing institutions in a world where there is uncertainty about policymakers' ability to develop high-quality policies, there is a choice between excessive policy change and excessive gridlock.

1.1 Related Literature

This paper considers how uncertainty about a policymaker's ability to develop high-quality policies affects her policymaking decisions. To do this, I study model where policy has two dimensions: ideology and quality. In this modeling choice, I build upon a small but growing literature of formal models where policy has an ideological component and a valence component, and where the valence component usually represents the policy's quality (Hirsch and Shotts, 2012, 2015, 2018; Hitt et al., 2017; Londregan, 2000). Many of the papers within this literature build upon the same basic model where a policymaker makes a costly investment in developing the quality of an alternative to the status quo. By doing this, the policymaker makes her reform more attractive to a different player with ideological preferences that differ from the policymaker's and who must agree to change the status quo to the reform. With one exception, Hitt et al. (2017), policymakers in the existing models have the same ability to develop high-quality policies. In contrast, in my model, some policymakers have more ability than others. Moreover, unlike Hitt et al. (2017), I study a setting with incomplete information about the policymaker's ability.

This paper is also closely related to the literature on electoral accountability when there is uncertainty about a policymaker's type. For example, previous work focuses on uncertainty about a policymaker's ability to discern which policies should be chosen given the underlying state of the world (Canes-Wrone et al., 2001; Ashworth and Shotts, 2010; Maskin and Tirole, 2004; Kartik et al., 2015; Bils, 2023) and uncertainty about a policymaker's preferences (Fearon, 1999) among other topics. In these cases, uncertainty leads to distorted policymaking relative to when there is complete information: policymakers pander or anti-pander when there is uncertainty about what they know about the state of the world and moderate when there is uncertainty about their preferences. I examine a distinct source of uncertainty, uncertainty about a policymaker's ability to develop high-quality policies and show that this leads to distortions in the form of additional reform that decreases expected policy quality. Moreover, to do this, I develop a novel yet tractable electoral accountability model where policy has a horizontal and vertical dimension.

Within this literature, my paper is most closely related to Judd (2017), who studies a model where a policymaker directly reveals her skill by unilaterally changing the status quo. In equilibrium, high-ability policymakers "show off" by unilaterally enacting policies inferior to the status quo but high quality enough that the voter will reelect them after learning their skill. My model differs in two ways: the voter observes if the incumbent implements the reform but does not observe her type or her alternative's quality, and the incumbent has ideological preferences. These differences mean that the voter's learning in equilibrium depends on the incumbent's ideological stance, as does whether distorted policymaking arises in equilibrium. Hence, my model complements Judd (2017) by illustrating a connection between distorted policymaking and ideology. Moreover, my model demonstrates that the incumbent has an informational incentive to moderate, which is something that does not arise in Judd (2017) since policy does not have an ideological dimension.

Finally, in an extension of the baseline model, I study a setting where the challenger can veto the reform proposed by the incumbent. This is related to other work on electoral accountability where one player can exercise veto power over another player's proposal (Buisseret, 2016; Noble, 2023; Fox and Stephenson, 2011). However, in my setting, the incumbent and challenger are engaged in zero-sum electoral competition, like when the incumbent is the majority party in the Senate, and the challenger is the minority party. When interpreted this way, the challenger's behavior in equilibrium is reminiscent of the strategic, electorally motivated opposition we see in roll-call voting documented by Lee (2009, 2016).

2 Model

There are three players: an incumbent policymaker (I, "she"), a challenger (C, "he"), and a voter (V, "he"). Each policymaker, $j \in \{I, C\}$, either has high ability ($\tau_j = \overline{\theta}$) or low ability ($\tau_j = \underline{\theta}$), and their types are unknown to all players. At the start of the game, the policymakers' types are independently and identically drawn from a Bernoulli distribution such that the prior probability that policymaker j has high ability is $p \in (0, 1)$.

There is a publicly observed status quo, $\pi_{sq} = (x_{sq}, q_{sq})$, which consists of ideology, $x_{sq} \in \mathbb{R}$, and quality, $q_{sq} \geq 0$. The incumbent has the option to maintain this status quo, $\pi = \pi_{sq}$, or implement the reform, π_I, which has an exogenously determined ideology, x_I, and quality, $q_I \geq 0$. While the incumbent and the voter know x_I, only the incumbent knows q_I, which she privately learns before publicly deciding whether to implement the reform. Observing this decision, but without observing q_I, the voter chooses between reelecting the incumbent and replacing her with the challenger, $e \in \{I, C\}$.

The quality of the incumbent's reform, q_I, is drawn from one of two distributions depending on her type. Let f be the prior distribution of q_I if the incumbent has high ability, and let g be the prior distribution of q_I if the incumbent has low ability. I assume $f(q_I) > 0$ and $g(q_I) > 0$ for $q_I \in [0, \infty)$ and $f(q_I)$ and $g(q_I)$ have the strict monotone likelihood ratio property (MLRP)(Milgrom, 1981).[4]

The timing of the model is summarized below:

1. Nature privately draws the policymakers' types and q_I.
2. The incumbent privately learns q_I.
3. The incumbent chooses whether to implement the reform.
4. The voter observes the incumbent's decision but not q_I.
5. The voter chooses whether to elect the incumbent or challenger.

Payoffs The incumbent cares about policy quality, policy ideology, and winning reelection. Her utility from a policy with ideology x and quality q is

$$u_I(x, q) = -(\hat{x} - x)^2 + q + \mathbb{1}_{e=I} r,$$

where $\hat{x}$ is the incumbent's ideological ideal point, $r > 0$ represents office rents, and $\mathbb{1}_{e=I}$ is an indicator function that takes the value one when the voter reelects the incumbent and zero otherwise. I begin by assuming $x_I = \hat{x}$, that is, the ideology of the incumbent's reform matches her ideological ideal point. But, in Section 5, I allow the incumbent to choose the ideology of her reform.

[4] Assuming $f(q_I)$ and $g(q_I)$ have the strict MLRP means $\frac{f(q_I)}{g(q_I)}$ is strictly increasing in q_I. The assumption of strict MLRP rather than weak MLRP ensures there is a unique threshold in the incumbent's strategy such that the voter is indifferent between the incumbent and challenger. Without this assumption, the substantive results would be the same but there might be more equilibria. See Section A.2 of the Appendix for more information.

The voter cares about the policymakers' ability:

$$u_V = \mathbb{1}_{e=I}\mathbb{1}_{\tau_I=\overline{\theta}} + (1-\mathbb{1}_{e=I})(\mathbb{1}_{\tau_C=\overline{\theta}} + \eta).$$

where $\eta \in \mathbb{R}$ represents the voter's preference for or against the challenger for reasons other than ability, and $\mathbb{1}_{\tau_I=\overline{\theta}}$ and $\mathbb{1}_{\tau_C=\overline{\theta}}$ are indicator functions that take the value of one if the incumbent and challenger have high ability respectively and zero otherwise. η represents a notion of ex-ante electoral competition: if $\eta > 0$, the incumbent ex-ante *trails* the challenger, and if $\eta < 0$, the incumbent ex-ante *leads* the challenger.

I also make the following parameter assumption.

Assumption 1. *$\eta \in (\underline{\eta}, \overline{\eta})$, where $\underline{\eta} < 0 < \overline{\eta}$.*

This assumption means that the incumbent never ex-ante leads or trails by a sufficient margin that the election's outcome is predetermined. $\underline{\eta}$ and $\overline{\eta}$ depend on p, $f(q_I)$, and $g(q_I)$, and are defined in the Section A.2 of the Appendix.

Equilibrium The incumbent's strategy is a function $\sigma_I(\cdot) : \mathbb{R}_+ \to \Delta\{\pi, \pi_I\}$, and the voter's strategy is a function $\sigma_V(\cdot) : \{\pi, \pi_I\} \to \Delta\{I, C\}$. A perfect Bayesian equilibrium surviving D1 with minimum policy change, referred to in the paper as an "equilibrium," satisfies the following:

(i.) Each player's strategy is sequentially rational given her or his beliefs and the other players' strategies.

(ii.) The voter's belief about the incumbent's ability satisfies Bayes' rule on the equilibrium path.

(iii.) The voter's belief about the incumbent's ability satisfies the D1-criterion off the equilibrium path.

(iv.) There is no other equilibrium with lower probability of reform.

The first two conditions are the conditions for a perfect Bayesian equilibrium, and the third is the D1-criterion from Banks and Sobel (1987), which restricts the voter's belief when the incumbent deviates to an action off the equilibrium path. Specifically, D1 requires that the voter restricts his off-the-path beliefs to the types of incumbents most likely to deviate to the off-the-path action. I adopt the fourth condition in light of the existence of multiple equilibria. For much of the parameter space, a unique perfect Bayesian equilibrium satisfies the first three conditions, but elsewhere, multiple perfect Bayesian equilibria surviving D1 exist. Adopting the fourth condition ensures uniqueness, except for in some knife-edge cases. Below, I show that uncertainty about the policymaker's type distorts policymaking in the form of additional reform. By focusing on the equilibrium with minimum policy change, I focus on the equilibrium where this distortion is minimized. Notably, the comparative statics results derived when I focus on the equilibrium with minimum policy change are the same as those if I focus on the equilibrium with maximum policy change.[5]

3 Discussion of the Model

Policy Quality I model policy as having two dimensions: ideology and quality. Ideology represents whether the policy is more to the left or the right, and quality represents aspects of the policy that all players value, such as cost-effectiveness, lack of susceptibility to fraud, and the extent to which the policy achieves agreed-upon goals like economic growth. In this way, policy quality is similar to a party or a politician's valence (Stokes, 1963). To illustrate these dimensions, consider the Paycheck Protection Program (PPP), which provided low-interest loans to business owners during the COVID-19 pandemic. The ideology of the PPP can be represented by a point along the left-right policy dimension. There are also aspects of the PPP that are separate from ideology that contribute to the quality of the policy. For example, the PPP was highly susceptible to fraud—by some estimates, 10 percent of the money dispersed was for fraudulent claims—due partly to the way applications were screened (Griffin et al., 2023; Brooks, 2023).[6].

In the incumbent's utility function, her utility from quality and ideology are separable. I make this assumption for tractability, but complete separability is not critical to my qualitative results. For example, suppose the incumbent's utility from a policy with ideology x and quality q is given by

$$u_I(x,q) = -(\hat{x}-x)^2 + l(\hat{x},x,q) + \mathbb{1}_{e=I}r,$$

where $l(\hat{x},x,q)$ is strictly increasing in q. All of my qualitative results go through if $l(\hat{x},x,q)$ is weakly decreasing in the distance between $\hat{x}$ and x, and most go through if $l(\hat{x},x,q)$ is weakly increasing or is not monotone with respect to the distance between $\hat{x}$ and x. Ultimately, what is important is that $l(\hat{x},x,q)$ is increasing in q.

[5]In some cases (iv.) also removes a mixed strategy equilibrium in which the comparative statics results for the perfect Bayesian equilibrium surviving D1 with minimum policy change do not hold.

[6]The Small Business Administration used outside lenders to screen applications and to make loans. Because these lenders collected a processing fee but were not liable for the loss on bad loans, they had little incentive to scrutinize applications closely. See Brooks (2023) for more information.

Ability to Craft High-Quality Policy In the model, policymakers differ in their ability to develop high-quality policies. Policymakers differ in this regard because of their personal characteristics—their intelligence, experience, or knowledge of a particular issue—and because of factors like the quality of the policymaker's staff or her ability to utilize lobbyists and interest groups to help craft the policy.

The ability to develop high-quality policies is related to issue ownership, where particular policymakers or parties are associated with greater competence in an issue area (Petrocik, 1996). One reason a policymaker might "own" an issue is that she is perceived as able to develop high-quality policies in that area. Existing work typically begins with the assumption that voters know which policymakers own which issues (Krasa and Polborn, 2010; Ascencio and Gibilisco, 2015; Hummel, 2013). In contrast, in this model, the policymaker can influence the voter's perception of whether she has high ability, and hence, can endogenously achieve "ownership." In the model, the incumbent and the challenger both have the same prior probability of having high ability. Importantly, by varying η, the incumbent may begin the game leading or trailing the follower. Hence, one could allow the voter to have asymmetric priors about the incumbent and challenger, and nothing would change. That is, the voter could believe the incumbent or challenger has some degree of issue ownership over the policy area in question.

Learning about Quality I assume the incumbent knows the quality of her reform when deciding whether to implement it, but the voter does not. This asymmetry reflects that the policymaker is a policy expert, but the voter needs time to observe the reform after it is implemented to learn its quality. This model represents a situation where there is insufficient time for the voter to learn about quality before the election.

Timing In the model, the policymaker learns the quality of her reform and then decides whether to implement it. This feature of the model represents how, after drafting a piece of legislation, a policymaker has the choice of whether to proceed with it. For example, after designing an executive order with her staff, a mayor might choose not to issue it. Or, after some of their members draft a piece of legislation, a party's leadership might decide not to schedule a vote. This is what happened to the Graham-Cassidy amendment in 2017. Republican Senators Lindsey Graham and Bill Cassidy developed and introduced an amendment that would overhaul or repeal significant pieces of the ACA, replacing them with block grants to states (Frostenson, 2017).[7] Although the amendment had support among most Senate Republicans, some, like Susan Collins and John McCain, opposed the bill. In a

[7] This occurred after Senator John McCain's famous "thumbs-down" vote on a different ACA repeal bill.

statement explaining her opposition, Collins wrote:

> Sweeping reforms to our health care system and to Medicaid can't be done well in a compressed time frame, especially when the actual bill is a moving target... The CBO's analysis on the earlier version of the bill, incomplete though it is due to time constraints, confirms that this bill will have a substantially negative impact on the number of people covered by insurance.[8]

In light of this opposition, Republican leadership in the Senate decided not to put the legislation up for a vote.[9]

Voter's Utility I assume the voter has a preference for policymakers with high ability. This assumption represents that a policymaker with high ability will be more likely to develop high-quality policies in the future.[10] This preference can be microfounded by a game where the election does not affect the policy implemented by the incumbent, the voter cares about policy, and there is a second policymaking period where the winner of the election develops a new policy on a distinct issue and chooses whether to enact it.[11]

4 Analysis

Given the incumbent's choice whether to implement the reform, $\pi \in \{\pi_{sq}, \pi_I\}$, the voter strictly prefers to reelect the incumbent when

$$\Pr(\tau_I = \overline{\theta}|\pi) > p + \eta.$$

When the inequality is reversed, the voter strictly prefers to elect the challenger.[12] Otherwise, he is indifferent.

[8] Collins (2017)

[9] At the time, Republicans controlled the House, Senate, and presidency, and hence, if the party had been unified, would have been able to unilaterally change the status quo.

[10] The assumption that voters care about policymakers' ability in an unmodeled section period is extremely common in the electoral accountability literature (e.g. Fox and Stephenson, 2011; Gibbs, 2024).

[11] If the second-period incumbent always enacts the policy he or she develops in the second period, the voter strictly prefers to elect the first-period incumbent if $\Pr(\tau_I = \overline{\theta}|\cdot) > p + \eta$, where $\eta = \frac{(x_V - \check{x})^2 - (\check{x}_V - \check{x}_C)^2}{\int_0^\infty \check{q} f(\check{q}) d\check{q} - \int_0^\infty \check{q} g(\check{q}) d\check{q}}$ and $\check{x}$, $\check{x}_C$, and $\check{x}_V$ are the incumbent, challenger, and voter's ideological ideal points on the distinct issue. See Section 7.1 for more information.

[12] Slightly abusing notation, here π represents the incumbent's decision rather than the policy itself since the voter does not observe q_I.

4.1 Benchmark: No Uncertainty about the Incumbent's Ability

I begin with a benchmark with complete information about the incumbent's type. Denote this game by $\hat{\Gamma}$. When the voter knows whether the incumbent has high ability, his voting decision is unrelated to the incumbent's decision whether to implement the reform. Therefore, the incumbent implements the reform if and only if doing so increases her utility from policy, which is when her ideological benefit from implementing the reform exceeds the net change in quality:

$$q_I \geq \max\{q_{sq} - (\hat{x} - x_{sq})^2, 0\}. \tag{1}$$

Inspecting this condition, it is clear that as long as the incumbent has some degree of ideological opposition to the status quo, she sometimes implements reforms that are lower quality than the status quo. Moreover, as the incumbent's ideological opposition to the status quo increases, the probability she implements the reform increases, and expected policy quality decreases.

4.2 Full Model: Uncertainty about the Incumbent's Ability

I now turn to the full model described in Section 2, denoted by Γ. When the voter chooses whether to reelect the incumbent, his strategy is a mapping from the incumbent's decision to a vote choice. Therefore, there are three possible types of equilibria. In the first, the voter's choice does not depend on the incumbent's decision, in which case the incumbent implements the reform if and only if condition (1) is satisfied, which is the same threshold she uses in $\hat{\Gamma}$.[13]

In the remaining possible equilibria, the incumbent's probability of reelection depends on whether she implements the reform. One possibility is that in equilibrium, the incumbent's probability of reelection is strictly greater when she retains the status quo than when she implements the reform. Suppose such an equilibrium exists. In this equilibrium, the incumbent's utility from retaining the status quo does not depend on q_I. However, her utility from implementing the reform is increasing in q_I. Hence, she must use a threshold strategy where she implements the reform if and only if it is sufficiently high quality.

That $f(q_I)$ and $g(q_I)$ satisfy strict MLRP means that if the incumbent uses a threshold strategy, implementing the reform signals high ability while retaining the status quo signals the opposite.[14] As a result, there cannot be an equilibrium where the incumbent's probability

[13]This includes equilibria where the incumbent chooses one action on the equilibrium path, but the voter's action would be the same if the incumbent chose her action off the equilibrium path.

[14]This and additional properties of the voter's posterior belief when the incumbent uses a threshold strategy

of reelection is higher when she retains the status quo than when she implements the reform. This rules out the possibility that this potential equilibrium exists.

In the other possible equilibrium, the incumbent's probability of reelection is strictly greater when she implements the reform than when she retains the status quo. I refer to this as an *equilibrium with consequential policy change*. The same argument about the necessity of the incumbent using a threshold strategy applies here. Hence, she uses a threshold strategy and implements the reform if and only if it is sufficiently high quality.

Lemma 1. *In any equilibrium, the incumbent uses a threshold strategy and implements the reform if and only if* $q_I \geq q_{sq} + y^*$*, where* $y^* \in [-q_{sq}, \infty)$*.*

I refer to y^* as the incumbent's *quality threshold*. The higher the incumbent's quality threshold, the more discerning she is about how high quality her reform must be to warrant implementing it.

In an equilibrium with consequential policy change, the incumbent's desire for reelection is an additional incentive to implement the reform, which distorts policymaking relative to the complete information benchmark.

Proposition 1. *There are regions of the parameter space where an equilibrium with consequential policy change exists. Moreover, relative to* $\hat{\Gamma}$*, in an equilibrium with consequential policy change,*

(a) the probability of reform is strictly higher,

(b) and thus expected policy quality is strictly lower.

Consider an incumbent in the complete information benchmark who, given the quality of her reform, is essentially indifferent between implementing it and retaining the status quo. If there is uncertainty about her type and changing the status quo increases her probability of reelection, she has an extra incentive to implement it relative to the benchmark. I refer to the additional reforms that arise due to this as *ability signaling*.

Definition 1. *Let* y^*_Γ *be the incumbent's quality threshold in an equilibrium of* Γ*. If* $q_{sq} - (\hat{x} - x_{sq})^2 > 0$ *and*

$$y^*_\Gamma < -(\hat{x} - x_{sq})^2,$$

are derived in Section A.2 of the Appendix.

the incumbent engages in ability signaling. Moreover,

$$D(y^*_\Gamma) = \begin{cases} 0 & \textit{if } q_{sq} - (\hat{x} - x_{sq})^2 \leq 0 \\ -(\hat{x} - x_{sq})^2 - \max\{y^*_\Gamma, 0\} & \textit{if } q_{sq} - (\hat{x} - x_{sq})^2 > 0 \end{cases}$$

is the ***extent of ability signaling****.*

Proposition 1 demonstrates that an equilibrium with consequential policy change exists and that the incumbent engages in ability signaling in this type of equilibrium. But under what conditions does such an equilibrium exist?[15] As depicted in Figure 1, with the blue region depicting the region of the parameter space where an equilibrium with consequential policy change exists, existence of such an equilibrium depends on three things: the degree of ex-ante electoral competition (y-axis), the incumbent's ideological opposition to the status quo (x-axis), and office rents (on the x-axis). The following proposition represents the figure formally.

Proposition 2. *Fix π_{sq}. An equilibrium with consequential policy change exists if and only if*

(a) $\eta > 0$ and $-(\hat{x} - x_{sq})^2 > \overline{y}(q_{sq}, \eta)$;

(b) $\eta = 0$ and $-(\hat{x} - x_{sq})^2 > r - q_{sq}$;

(c) or $\eta < 0$ and $-(\hat{x} - x_{sq})^2 \in (r - q_{sq}, \underline{y}(q_{sq}, \eta))$,

where $\overline{y}(q_{sq}, \eta)$ and $\underline{y}(q_{sq}, \eta)$ solve $\Pr(\tau_I = \overline{\theta} | \pi = \pi_I, \overline{y}(q_{sq}, \eta)) = p + \eta$ and $\Pr(\tau_I = \overline{\theta} | \pi = \pi_{sq}, \underline{y}(q_{sq}, \eta)) = p + \eta$. In any other equilibrium, the incumbent's strategy coincides with her strategy in $\hat{\Gamma}$.

When the incumbent trails the challenger ($\eta > 0$), she loses the election if she retains the status quo. What happens when she implements the reform depends on her ideological opposition to the status quo. When she is very ideologically opposed to the status quo, implementing the reform is a weak signal of ability. The voter recognizes that because the incumbent dislikes the status quo on ideological grounds, she is willing to implement a low-quality reform. On the other hand, when she is *not* very ideologically opposed to the status quo, implementing the reform is a strong signal of ability since the voter understands that the incumbent must have developed a high-quality reform. Hence, an equilibrium with consequential policy change arises when the incumbent is sufficiently ideologically amenable to the status quo that implementing the reform leads her to be reelected with positive

[15] In Section A.2 of the Appendix, I provide a full characterization of all PBE surviving D1.

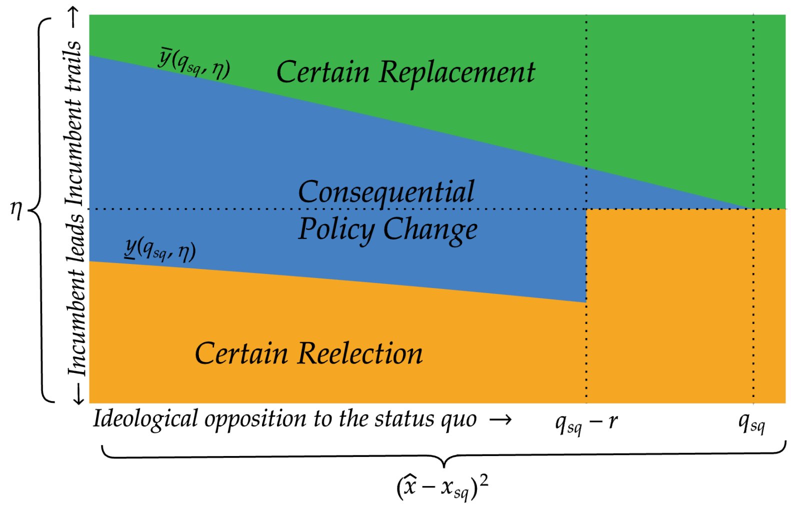

Figure 1: Regions of equilibria with minimum policy change for $q_{sq} = 1$, $r = \frac{1}{4}$, $f(q_I) = e^{-q_I}$, $g(q_I) = 2e^{-2q_I}$, and $p = \frac{1}{2}$.

probability. The precise "sufficient" condition depends on $\overline{y}(q_{sq}, \eta)$, which is the quality threshold such that the voter is indifferent between electing the incumbent and the challenger when the incumbent implements the reform. Figure 2 provides intuition for $\overline{y}(q_{sq}, \eta)$.

When the incumbent leads the challenger ($\eta < 0$), the logic is flipped. Since the incumbent leads, she wins reelection when she implements the reform, but what happens when she retains the status quo depends on her ideological opposition to the status quo. When she is not ideologically opposed to the status quo, retaining it is a weak signal of low ability. But when she is very ideologically opposed to the status quo, retaining it is a strong signal of low ability because the voter understands that the reform she developed must be very low quality; otherwise, she would have implemented it. Hence, an equilibrium with consequential policy change arises when the incumbent is sufficiently ideologically opposed to the status quo that she loses reelection when she retains the status quo. In this case, the precise "sufficient" condition depends on $\underline{y}(q_{sq}, \eta)$, which is the quality threshold such that the voter is indifferent between electing the incumbent and the challenger when the incumbent retains the status quo. Figure 2 also provides intuition for $\underline{y}(q_{sq}, \eta)$. The existence of an equilibrium with consequential policy also requires the incumbent not to be too opposed to the status quo. When she is, she always implements the reform and is always reelected on the equilibrium path since she leads.[16]

In the remaining regions of the parameter space, there are two other types of equilibria:

[16]This is why, when the incumbent leads, the existence of an equilibrium with consequential policy change requires $-(\hat{x} - x_{sq})^2 > r - q_{sq}$ as depicted in Figure 1.

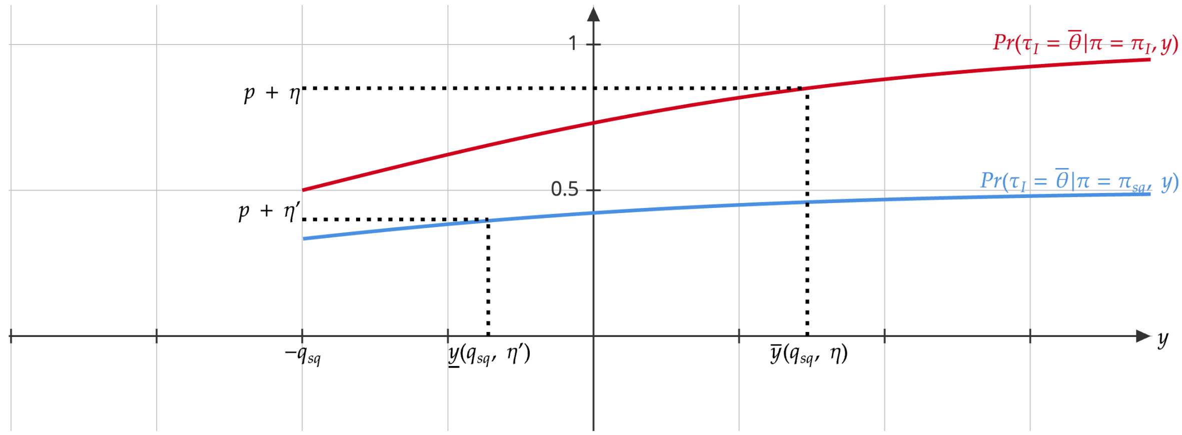

Figure 2: Voter's posterior, $\underline{y}(q_{sq}, \eta)$, and $\overline{y}(q_{sq}, \eta)$. $q_{sq} = 1$, $f(q_I) = e^{-q_I}, g(q_I) = 2e^{-2q_I}$, $p = \frac{1}{2}$, $\eta = \frac{7}{20}$, and $\eta' = -\frac{1}{10}$.

an *equilibrium with certain reelection*, where the incumbent is reelected regardless of whether she implements the reform, and an *equilibrium with certain replacement*, where the incumbent is replaced whether she implements the reform or not.[17]

Proposition 3. *In any equilibrium, the extent of ability signaling is*

(a) weakly increasing in ex-ante electoral competition (i.e. as η approaches zero),

(b) and weakly increasing in the office rents.

There is a connection between the degree of ex-ante electoral competition, which increases as η approaches zero, and the extent of ability signaling.[18] Fix a status quo and the incumbent's ideological ideal point, and suppose the incumbent leads. Furthermore, suppose that in $\hat{\Gamma}$, the incumbent retains the status quo and implements reforms on the equilibrium path.[19] When η is very negative, the voter has a strong ex-ante preference for the incumbent. As a result, even if the incumbent is very ideologically opposed to the status quo, the voter will reelect her when she retains the status quo. In this case, there is no ability signaling. As the degree of ex-ante political competition increases—as η approaches zero—$\underline{y}(q_{sq}, \eta)$ also

[17]If I do not restrict attention to the set of equilibria with minimum policy change, then, when the incumbent trails, there is a band below the region with consequential policy change where two other equilibria exist. One is an equilibrium with consequential policy change where the incumbent is only reelected if she implements the reform. The other is an equilibrium with consequential policy change where the incumbent is reelected with probability one if she implements the reform and with probability $\rho^* \in [0, 1]$ if she retains the status quo. See Section A.2 of the Appendix for more information.

[18]I specify that this result holds for *any equilibrium* since a continuum of equilibria exists when $\eta = 0$ and the incumbent is sufficiently ideologically opposed to the status quo that she implements the reform for any q_I.

[19]This ensures the possibility of ability signaling in Γ.

increases. Eventually, $\underline{y}(q_{sq}, \eta) > -(\hat{x} - x_{sq})^2$, and the voter no longer reelects the incumbent when she retains the status quo. As a result, ability signaling arises, and the extent of ability signaling increases. Things are similar when $\eta = 0$, in which case the incumbent always engages in ability signaling.

The logic is flipped when $\eta > 0$. When η is close to zero, the incumbent engages in ability signaling. But as η increases away from zero, so does $\underline{y}(q_{sq}, \eta)$. Eventually, $-(\hat{x} - x_{sq})^2 \leq \overline{y}(q_{sq}, \eta)$, and the incumbent is never reelected. Hence, there is no ability signaling.

Additionally, there is a connection between the extent of ability signaling and office rents. When the incumbent trails and is never reelected, increasing the office rents does not affect the incumbent's incentive to implement reforms. But, if the incumbent is reelected when she implements the reform, increasing office rents makes implementing the reform more attractive, and hence the extent of ability signaling increases. Eventually, the office rents increase to the point that implementing the reform no longer conveys a sufficiently strong signal of high ability for the incumbent to be reelected. To maintain equilibrium, the voter must reelect the incumbent with a lower probability when she implements the reform. As r goes to infinity, this probability goes to zero. This decrease in the probability of reelection conditional on reform as the office rents increase maintains the same probability of reform in equilibrium, and hence, increasing office rents further has no effect on the extent of ability signaling.

When the incumbent leads, increasing the office rents does not affect the probability of policy change when the incumbent is always reelected. However, if she is only reelected when she implements the reform, increasing the office rents makes policy change more attractive, leading to an increase in the extent of ability signaling.

4.3 Implications

Ability Signaling without Elections Although there is a voter and an election in the model, the model can depict policymaking by an unelected policymaker. Suppose the incumbent is the superintendent of a school district who is deciding whether to enact an education reform, and the voter is someone who might hire the superintendent for a different job in the future. In this case, it seems natural to assume that $\eta = 0$ and $x_I = x_{sq}$. That is, the voter does not have an ex-ante preference for or against the superintendent, and the superintendent is not ideologically opposed to the status quo. Proposition 1 shows that in equilibrium, the superintendent engages in ability signaling. This is consistent with qualitative descriptions of policymaking by superintendents. In particular, Hess (1999) argues that the combination of superintendents' desire to improve their reputations—they care about their reputation for career concerns reasons—and their short time horizons—they seek to move to their next job quickly —leads to "policy churn." Superintendents are incentivized to "assume the role of the reformer, initiating a great deal of activity" to bolster their reputations. Otherwise, they will be perceived as "'do nothing' and will be replaced by a more promising successor" (Hess, 1999, p. 43).

Connection to Empirical Literature Empirical work on electoral accountability provides evidence that policymakers' desire for reelection incentivizes action (e.g. Alt et al., 2011). For example, studying state legislators, Fouirnaies and Hall (2022), find that reelection incentives motivate legislators to sponsor more bills, be more productive on committees, and attend more floor votes. These actions benefit voters. For example, productive committee work allows a policymaker to mark up legislation with her constituents' interests in mind (Fouirnaies and Hall, 2022, p. 666).

In Fouirnaies and Hall (2022), the "ideal experiment" would be one where legislators are randomly assigned the opportunity to run for reelection again. In contrast, this model approximates an "ideal experiment" where reelection incentives are fixed but whether there is uncertainty about a policymaker's ability is randomly assigned. In this case, uncertainty also incentivizes action. Still, this action may make the voter worse off.[20] Suppose the voter has preferences over policy of a similar form to the incumbent, has an ideological ideal point of zero, and that the incumbent's ideological benefit from reform is weakly larger than the challengers (i.e., $(\hat{x} - x_{sq})^2 \geq x_{sq}^2$).

Proposition 4. *In any equilibrium of* Γ*, the voter's welfare is weakly lower than in* $\hat{\Gamma}$*.*

If the incumbent has a weakly larger ideological benefit from reform than the voter, then in the complete information benchmark, the incumbent implements reforms too often relative to the amount that would maximize the voter's welfare. Incomplete information about the incumbent's ability exacerbates this since she sometimes engages in ability signaling, which means she implements additional reforms.

Excessive Mutability of Laws Since the founding of the United States, some have feared there is a connection between elections and excessive reform. James Madison and Alexis de Tocqueville both feared that political turnover via elections would lead to excessive reform because different policymakers had different preferences.[21] There is a sense in which this

[20]Following others in the literature, I define the voter's welfare only in terms of his utility from policy (Canes-Wrone et al., 2001; Fox and Van Weelden, 2012).

[21]Alexis de Tocqueville wrote, "The mutability of the laws is an evil inherent in democratic government, because it is natural to democracies to raise men to power in very rapid succession" (de Tocqueville, 2003). See also the James Madison quote in the introduction.

concern is captured by my model.

Proposition 5. *Fix π_{sq}. In any equilibrium, the probability of reform is weakly increasing in the incumbent's ideological opposition to the status quo (i.e. as $(\hat{x} - x_{sq})^2$ increases).*

That said, my model identifies an additional reason why elections and excessive reform might be connected: the desire of a policymaker to signal the ability to develop high-quality policies.

5 Endogenous Choice of Ideology

The baseline model assumes the ideology of the incumbent's reform is exogenously fixed at her ideological ideal point. In a setting where the incumbent unilaterally implements reforms, it may be reasonable to assume she will pursue her preferred policy since she does not require the agreement of any other actors. Yet, as Proposition 2 illustrates, whether reform is electorally consequential depends on the incumbent's ideological opposition to the status quo. In light of this, does the incumbent have any incentive to develop a reform that differs from her ideological ideal point? To answer this question, suppose the incumbent publicly chooses $x_I \in \mathbb{R}$, then privately learns q_I, and then chooses whether to implement the reform.[22]

Proposition 6. *When $\eta < 0$ and $-(\hat{x} - x_{sq})^2 \in (r - q_{sq}, \underline{y}(q_{sq}, \eta))$, there is a region of the parameter space where, in equilibrium, the incumbent develops a reform with ideology $x_I \in \{\underline{x_I}^*, \overline{x_I}^*\}$, where $\underline{x_I}^* = \hat{x} - \sqrt{\underline{y}(q_{sq}, \eta) + (\hat{x} - x_{sq})^2}$ and $\overline{x_I}^* = \hat{x} + \sqrt{\underline{y}(q_{sq}, \eta) + (\hat{x} - x_{sq})^2}$.*

Suppose the incumbent trails, and if she develops a reform at her ideological ideal point, she only wins reelection if she implements it. By developing a reform that differs from her ideological ideal point, the incumbent reduces her incentive to implement the reform because doing so yields a smaller ideological benefit.[23] That is, by developing a reform that differs from her ideological ideal point, the incumbent commits to a higher quality threshold. This commitment makes retaining the status quo a weaker signal of low ability. If she develops a reform with an ideology sufficiently far from her ideological ideal point, retaining it will be such a weak signal that she will win reelection even if she retains the status quo. Of course,

[22] A key assumption is that policy quality is not transferable (Hirsch and Shotts, 2012). That is, the incumbent cannot develop a reform with ideology x_I and then transfer the quality to a different reform with ideology x'_I.

[23] The model assumes the incumbent's utility from quality does not depend on the ideology of the policy. That is not necessary for this result. It is sufficient that fixing quality, the incumbent's utility from a policy is lower the farther the ideology of the policy is from her ideological ideal point.

making such a commitment comes at a cost: fixing q_I, implementing the reform yields a lower payoff. But, in some cases, the electoral benefit outweighs the ideological cost.[24]

When the incumbent develops a reform with an ideology that differs from her ideological ideal point, she chooses the ideology that is sufficiently far from her ideological ideal point to make the voter indifferent between electing the incumbent and challenger when she retains the status quo. There are two such ideologies, one to the right of the incumbent's ideological ideal point and one to the left. Both choices will affect the voter's inference in the same way. However, there are many reasons why we might expect the incumbent to break her indifference between the two ideologies by choosing the one that is more moderate than her ideological ideal point. For example, if there is a small amount of uncertainty about the incumbent's ideological ideal point, she is incentivized to choose the ideology close to the voter's ideological ideal point as in Fearon (1999). Hence, Proposition 6 can be interpreted as saying the incumbent has an incentive to moderate.

It is illustrative to juxtapose this result with Hirsch and Shotts (2012, 2018) and Hitt et al. (2017), who also study models where policy has quality and ideology, and moderation emerges in equilibrium. However, it emerges because a policymaker needs to secure agreement from another player with a different ideological ideal point. That is, moderation emerges from a Downsian logic—by moving the ideology of a policy closer to the other player's ideological ideal point, the policymaker makes her policy more attractive. The moderation in this model emerges for a reason entirely unrelated to Downsian logic. The policymaker moderates because it affects the information her decision conveys.

6 Veto Institutions

The baseline model assumes the incumbent can unilaterally reform the status quo, and I show that in such a setting, uncertainty about her ability and her desire for reelection leads to ability signaling. What happens if the incumbent cannot act unilaterally? In many policymaking institutions, a policymaker must secure the agreement of other policymakers to change the status quo. Moreover, it is common for policymakers to interact under the shadow of future electoral competition. For example, the incumbent might be the majority party in the Senate that needs the support of the minority party, the challenger, to pass legislation. To study the effect of uncertainty about the ability to develop high-quality policies in this type of setting, I study an extended version of the baseline model, denoted

[24] When the incumbent trails, there is also a region of the parameter space where she develops a reform with ideology that differs from her ideological ideal point. However, she does this when there is a mixed strategy equilibrium in the baseline. Moreover, the mixed strategy equilibrium continues to exist. Hence, I focus on the case where the ability to choose x_I destroys some of the baseline equilibria.

Γ^v, where:

1. Nature draws the policymakers' types and q_I.

2. The incumbent privately learns q_I.

3. The incumbent chooses whether to propose the reform, $\tilde{\pi} = (x_I, q_I)$.

4. If the incumbent proposes the reform, the challenger observes q_I and chooses whether to block it, $\pi = \pi_{sq}$, or agree to it, $\pi = \tilde{\pi}$.

5. The voter observes the incumbent and challenger's decisions but not q_I.

6. The voter chooses whether to elect the incumbent or challenger.

In this extension, the incumbent and voter's utility functions are the same as in the baseline model. The challenger cares about the quality and ideology of policy and winning reelection. Given a policy with ideology x and quality q, the challenger's utility function is

$$u_C(x, q) = -(\hat{x}_C - x)^2 + q + (1 - \mathbb{1}_{e=I})r,$$

where $\hat{x}_C$ is the challenger's ideological ideal point.

I make the following assumption about the location of the challenger and incumbent's ideological ideal points relative to the ideology of the status quo.

Assumption 2. $\hat{x}_C \leq x_{sq} \leq \hat{x}$.

This assumption—that the ideology of the status quo is on the Pareto frontier—implies the challenger's ideological benefit from reform is weakly smaller than the incumbent's.[25]

In addition to equilibrium conditions (i.)-(iv.), I focus on equilibria in which:

(v.) The incumbent proposes the reform for all q_I.

In the absence of this condition, there are a continuum of equilibria where the incumbent does not propose the reform for some realizations of q_I knowing the challenger would block them if she proposed them, and proposes the reform for other realizations of q_I knowing they will blocked. But, in both cases, her probability of reelection is the same. In light of this, and to simplify the exposition of the analysis, I focus on equilibria where the incumbent proposes the reform for all q_I.

[25]Stated differently, this assumption means the ideology of the status quo is in the gridlock interval. This means that if the incumbent and challenger only care about ideology, they will never agree to change the status quo. Callander and Martin (2017) show that the addition of policy quality means there can be policy change despite the status quo beginning in the gridlock interval.

Lemma 2. *In any equilibrium, the challenger uses a threshold strategy and agrees to a proposed reform if and only if* $q_I \geq q_{sq} + z^*$*, where* $z^* \in [-q_{sq}, \infty)$*.*

The intuition for this result parallels the intuition for Lemma 1. The lemma implies that the voter updates about the incumbent's ability similarly to how he updates in the baseline model. When the challenger agrees to a proposed reform, the voter updates positively about the incumbent's ability, and when the challenger blocks a proposed reform, the voter updates negatively about the incumbent's ability.

Let $\hat{\Gamma}^v$ be the complete information benchmark of Γ^v.

Proposition 7. *Relative to* $\hat{\Gamma}^v$*, in any equilibrium of* Γ^v*,*

(a) the probability of reform is weakly lower,

(b) and thus expected policy quality is weakly lower.

Suppose there is no uncertainty about the incumbent's type, and the challenger is indifferent between accepting and blocking a proposed reform. Now, suppose there is uncertainty about the incumbent's type. If the challenger blocks the proposed reform, the voter updates negatively about the incumbent's ability. Hence, independent of ideological concerns, the challenger sometimes has an electoral incentive to block the reform proposed by the incumbent.

The key implication of Proposition 7 is that requiring the incumbent to gain the challenger's support to reform the status quo leads to a new distortion: the challenger sometimes blocks reforms that he would allow absent uncertainty about the incumbent's ability. I refer to this as *ability blocking*.[26] Moreover, ability signaling decreases expected policy quality relative to $\hat{\Gamma}^v$ because the reforms the challenger blocks would improve policy quality relative to the status quo.

This implication highlights a fundamental trade-off between making it easier and harder to make policy. In the words of James Madison writing in Federalist 73,

> It may perhaps be said that the power of preventing bad laws includes that of preventing good ones; and may be used to the one purpose as well as to the other.[27]

[26] If x_{sq} is not on the Pareto frontier, there are two possibilities. In the first, the challenger's ideological benefit from reform is still weakly smaller than the incumbent's. In this case, the challenger still engages in ability blocking. In the second, the challenger's ideological benefit from reform is strictly greater than that of the incumbent. This case requires a different assumption about the incumbent's proposal behavior since it cannot be an equilibrium for her to propose a reform the challenger will agree to if the incumbent prefers retaining the status quo over implementing the reform. However, if I focus on equilibria where the incumbent never proposes a reform that is not accepted, there may be ability signaling or ability blocking in equilibrium.

[27] Madison (1788b)

Introducing a veto means the incumbent no longer engages in ability signaling. However, it comes at the expense of the challenger engaging in ability blocking.

An additional implication of Proposition 7 is that the challenger's behavior is consistent with the strategic, electorally motivated opposition observed in roll-call voting in Congress. Notably, even if the challenger and incumbent have the same ideological preferences, the challenger will sometimes block reforms he would allow if there was no uncertainty about the incumbent's type. This is reminiscent of Lee (2009), who uses roll-call votes to document the extent of disagreement between the democrats and republicans in the Senate on issues that lack a clear ideological valence.[28]

Additionally, the extent of ability blocking that arises in equilibrium is related to ex-ante electoral competition.

Definition 2. *Let $y^*_{\Gamma^v}$ be the challenger's quality threshold in an equilibrium of Γ^v. If $y^*_{\Gamma^v} > 0$ and*

$$y^*_{\Gamma^v} > -(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2,$$

the challenger engages in ability blocking. Moreover,

$$D(y^*_{\Gamma^v}) = \begin{cases} 0 & \text{if } y^*_{\Gamma^v} \leq 0 \\ y^*_{\Gamma^v} - \max\{-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2, 0\} & \text{if } y^*_{\Gamma^v} > 0 \end{cases}$$

is the ***extent of ability blocking****.*

When $y^*_{\Gamma^v} > 0$, the challenger blocks some proposed reforms he would allow under complete information.

Proposition 8. *In any equilibrium, the extent of ability blocking is weakly increasing in ex-ante electoral competition (i.e. as η approaches zero).*

The intuition for this proposition parallels the intuition for (a) in Proposition 3. The challenger's ideological preferences are constant in η, while his incentive to engage in ability blocking is most salient when the election close.[29]

This result is consistent with theorizing about the connection between electoral competition and partisan conflict in Congress (Lee, 2016). When there is uncertainty about which party will hold the majority tomorrow, congressional parties are incentivized to take actions

[28]Lee (2009) finds that over one-third of party-line votes in the Senate in the 97th-108th Congresses occurred on issues lacking a clear ideological dimension.

[29]This comparative static is the same if I focus on the equilibrium with maximum policy change.

that promote their image and damage the other party's image. This argument is supported by evidence from staffers and legislators in the challenger, who perceive blocking the incumbent as advantageous. For example, Lee (2016) quotes a Senate leadership staffer saying "In the minority, you don't want to fuel the success of the majority... Too much deal making can perpetuate them in the majority."

A final insight from this extension of the baseline model comes from comparing the incumbent's probability of reelection when she can unilaterally implement reforms to her probability of reelection when the challenger can veto.

Proposition 9. *There is a region of the parameter space where the probability the incumbent is reelected in* Γ^v *is higher than the probability she is reelected in* Γ.

By Assumption 2, the incumbent's ideological benefit from reform is weakly larger than the challenger's. This, along with the challenger's electoral considerations, means the challenger blocks some reforms the incumbent would implement in Γ. When this is the case, successful reform is a relatively stronger signal of high ability, and failure to reform is a relatively weaker signal of low ability. As a result, the incumbent's probability of reelection in Γ^v is sometimes higher than the incumbent's in Γ.

7 Robustness

In Section B of the Appendix, I explore the model's robustness with respect to various alternative assumptions.

7.1 Second Policymaking Period

Suppose there is a second policymaking period where the winner of the election develops a distinct reform, $\check{\pi}_j = (\check{x}_j, \check{q}_j)$, and chooses whether to implement it or retain the status quo, $\check{\pi}_{sq} = (0, 0)$. In this case, the second-period incumbent always implements the reform, which means the voter's expected utility from electing a particular policymaker depends on his belief about that policymaker's ability and the distance between the voter's ideological ideal point and the ideology of the policy the policymaker will enact. In particular, he will reelect the incumbent if the probability of her having high ability is sufficiently large.

7.2 Incumbent Knows Her Type

Suppose the incumbent knows whether she has high or low ability. As in the baseline model, she must use a threshold strategy in equilibrium. Moreover, having observed q_I, neither her expected utility from implementing the reform nor her expected utility from retaining the status quo depends on her type. Hence, she must use the same threshold regardless of her type.

7.3 Election Outcome Affects Policy

Suppose the election outcome affects policy. In particular, if the incumbent wins reelection, the policy she chose is implemented, and if the challenger is elected, the status quo is retained regardless of the incumbent's choice. Then, in addition to selecting the policymaker who is more likely to have high ability, the election is a referendum on the incumbent's chosen policy.

When the incumbent is reelected in equilibrium with positive probability, she uses a threshold strategy.[30] This implies that implementing the reform is a signal of high ability, and retaining is a signal of low ability. However, when voting, the voter cares about more than just each policymaker's ability; he also cares about the ideology and quality of the policy that will be implemented. While things are more complicated, qualitatively similar results emerge where, if reform strictly increases the probability the incumbent is reelected, the incumbent engages in ability signaling.

8 Conclusion

I studied a model with uncertainty about a policymaker's ability to develop high-quality policies. When the policymaker can unilaterally implement a reform of an inherited status quo, she engages in ability signaling, which produces excessive reform and lowers expected policy quality relative to when there is complete information about her type. Requiring her to secure the agreement of another policymaker under the shadow of future electoral competition ameliorates this initial distortion. Yet, it produces another: ability blocking, where the second policymaker blocks reform he would allow under complete information. Hence, uncertainty about the incumbent's ability produces excessive policy change under unilateral policymaking but leads to excessive gridlock under a veto institution. Importantly, these distortions are independent of ideological considerations. They arise solely because of incomplete information.

There are many natural extensions to this model. For example, one could endogenize the status quo in a model with two periods. In the first period, the incumbent chooses

[30] If, in equilibrium, she is never reelected, her decision whether to implement the reform has no effect on her utility from the policy. As a result, she no longer must use a threshold strategy in equilibrium.

whether to implement a reform. Then, the voter chooses whether to reelect the incumbent or replace her with a challenger without observing the quality of the incumbent's reform. In the second period, the election winner chooses whether to retain the status quo inherited from the previous period or to change it after learning the quality of their reform. This is related to the extension described in Section 7.3, but there are important differences. For one, the voter's decision is more complicated since what the elected politician will do tomorrow depends on the quality of their inherited status quo, but the voter does not observe the quality of the status quo when he votes.

References

Alt, J., E. Bueno de Mesquita, and S. Rose (2011): "Disentangling accountability and competence in elections: evidence from US term limits," *The Journal of Politics*, 73, 171–186.

Ascencio, S. and M. B. Gibilisco (2015): "Endogenous Issue Salience in an Ownership Model of Elections," *Working Paper*.

Ashworth, S. and K. W. Shotts (2010): "Does informative media commentary reduce politicians' incentives to pander?" *Journal of Public Economics*, 94, 838–847.

Banks, J. S. and J. Sobel (1987): "Equilibrium selection in signaling games," *Econometrica: Journal of the Econometric Society*, 647–661.

Bils, P. (2023): "Overreacting and Posturing: How Accountability and Ideology Shape Executive Policies," *Quarterly Journal of Political Science*, 18, 153â–182.

Brooks, S. (2023): "Uncovering Coivd Loan Cons," *Medium*, `https://www.nbcnews.com/politics/justice-department/biggest-fraud-generation-looting-covid-relief-program-known-ppp-n1279664`.

Buisseret, P. (2016): ""Together or apart"? On joint versus separate electoral accountability," *The Journal of Politics*, 78, 542–556.

Callander, S. and G. J. Martin (2017): "Dynamic policymaking with decay," *American Journal of Political Science*, 61, 50–67.

Canes-Wrone, B., M. C. Herron, and K. W. Shotts (2001): "Leadership and Pandering: A Theory of Executive Policymaking," *American Journal of Political Science*, 532–550.

Cho, I.-K. and D. M. Kreps (1987): "Signaling Games and Stable Equilibria," *The Quarterly Journal of Economics*, 102, 179–221.

Collins, S. (2017): "Senator Collins Opposes Graham-Cassidy Health Care Bills," `https://www.collins.senate.gov/newsroom/senator-collins-opposes-graham-cassidy-health-care-bills`.

de Tocqueville, A. (2003): *Democracy in America and Two Essays on America*, Penguin UK.

Diamond, D. (2024): "Mike Johnson vows major changes to Affordable Care Act if Trump wins election," *The Washington Post*, https://www-washingtonpost-com.proxy.uchicago.edu/politics/2024/10/30/mike-johnson-trump-aca-obamacare/ics/2024/10/30/mike-johnson-trump-aca-obamacare/.

Fearon, J. D. (1999): "Electoral Accountability and the Control of Politicians: Selecting Good Types versus Sanctioning Poor Performance," in *Democracy, Accountability, and Representation*, Cambridge University Press.

Fouirnaies, A. and A. B. Hall (2022): "How Do Electoral Incentives Affect Legislator Behavior? Evidence from U.S. State Legislatures," *American Political Science Review*, 116, 662–676.

Fox, J. and M. C. Stephenson (2011): "Judicial review as a response to political posturing," *American Political Science Review*, 105, 397–414.

Fox, J. and R. Van Weelden (2012): "Costly transparency," *Journal of Public Economics*, 96, 142–150.

Friedman, T. L. (2012): "Hope and Change: Part 2," *The New York Times*, https://www.nytimes.com/2012/11/07/opinion/friedman-hope-and-change-part-two.html.

Frostenson, S. (2017): "Graham-Cassidy health care bill: What you need to know," *Politico*, https://www.politico.com/interactives/2017/graham-cassidy-health-care-bill-what-you-need-to-know/.

Gibbs, D. (2024): "Hedging, Pandering, and Gambling: A Model of Policy Timing," *Working Paper*.

Griffin, J. M., S. Kruger, and P. Mahajan (2023): "Did FinTech Lenders Facilitate PPP Fraud?" *The Journal of Finance*, 78, 1777–1827.

Hess, F. M. (1999): *Spinning Wheels: The Politics of Urban School Reform*, Brookings Institution Press.

Hirsch, A. V. and K. W. Shotts (2012): "Policy-Specific Information and Informal Agenda Power," *American Journal of Political Science*, 56, 67–83.

——— (2015): "Competitive Policy Development," *American Economic Review*, 105, 1646–1664.

——— (2018): "Policy-Development Monopolies: Adverse Consequences and Institutional Responses," *The Journal of Politics*, 80, 1339–1354.

Hitt, M. P., C. Volden, and A. E. Wiseman (2017): "Spatial Models of Legislative Effectiveness," *American Journal of Political Science*, 61, 575–590.

Hoffman, R. (2024): "READ: Harris-Trump presidential debate transcript," *ABC News*, `https://abcnews.go.com/Politics/harris-trump-presidential-debate-transcript/story?id=113560542`.

Hummel, P. (2013): "Resource allocation when different candidates are stronger on different issues," *Journal of Theoretical Politics*, 25, 128–149.

Judd, G. (2017): "Showing Off: Promise and Peril in Unilateral Policymaking," *Quarterly Journal of Political Science*, 12, 241–268.

Kartik, N., F. Squintani, K. Tinn, et al. (2015): "Information Revelation and Pandering in Elections," *Working Paper*.

Krasa, S. and M. Polborn (2010): "Competition between Specialized Candidates," *American Political Science Review*, 104, 745–765.

Lee, F. E. (2009): *Beyond Ideology: Politics, Principles, and Partisanship in the U.S. Senate*, University of Chicago Press.

——— (2016): *Insecure Majorities: Congress and the Perpetual Campaign*, University of Chicago Press.

Londregan, J. B. (2000): *Legislative Institutions and Ideology in Chile*, Cambridge University Press.

Madison, J. (1788a): "The Federalist Papers, No. 62," .

——— (1788b): "The Federalist Papers, No. 73," .

Maskin, E. and J. Tirole (2004): "The politician and the judge: Accountability in government," *American Economic Review*, 94, 1034–1054.

Milgrom, P. R. (1981): "Good News and Bad News: Representation Theorems and Applications," *The Bell Journal of Economics*, 380–391.

Noble, B. S. (2023): "Energy versus safety: unilateral action, voter welfare, and executive accountability," *Political Science Research and Methods*, 11, 468–482.

Petrocik, J. R. (1996): "Issue Ownership in Presidential Elections, with a 1980 Case Study," *American Journal of Political Science*, 825–850.

Stokes, D. E. (1963): "Spatial Models of Party Competition," *American Political Science Review*, 57, 368–377.

The Heritage Foundation (2024): "Mandate for Leadership: The Conservative Promise," https://static.project2025.org/2025_MandateForLeadership_FULL.pdf.

A Proofs of Claims in Main Text

A.1 Lemma 1

Proof. Suppose a perfect Bayesian equilibrium (PBE) exists where the voter reelects the incumbent with probability $\gamma^* \in [0,1]$ if she retains the status quo and with probability $\lambda^* \in [0,1]$ if she implements the reform. Note, (i.) one of the incumbent's actions might be off the equilibrium path, and (ii.) neither λ^* nor γ^* depend on q_I. In this PBE, the incumbent must implement the reform if and only if $q_I \geq q_{sq} + y^*$, where

$$y^* = \begin{cases} -q_{sq} & \text{if } q_{sq} - (\hat{x} - x_{sq})^2 + (\gamma^* - \lambda^*)r < 0 \\ -(\hat{x} - x_{sq})^2 + (\gamma^* - \lambda^*)r & \text{if } q_{sq} - (\hat{x} - x_{sq})^2 + (\gamma^* - \lambda^*)r \geq 0. \end{cases}$$

Since this is true for any PBE, it must be true for any equilibrium as defined in Section 2. ∎

A.2 Propositions 1 and 2

Outline of the proof: I prove Lemmas 3 and 4 and then use them to characterize all PBE of Γ in Propositions 10, 11, and 12 under the assumption that off the equilibrium path,

$$\Pr(\tau_I = \overline{\theta} | \text{deviation off path}) = \frac{pf(0)}{pf(0) + (1-p)g(0)} \equiv \mu.$$

I then show that D1 forces the voter to believe that off the equilibrium path $\Pr(\tau_I = \overline{\theta}) = \mu$ in Proposition 13. Propositions 1 and 2 follow from applying equilibrium condition (iv.) to the equilibria identified in Propositions 10, 11, and 12 .

Lemma 3. *If the incumbent uses a threshold such that she implements the reform if and only if $q_I \geq q_{sq} + y$, for $y \in (-q_{sq}, \infty)$,*

(a) $\Pr(\tau_I = \overline{\theta} | \pi = \pi_I) > p$ *and is increasing in y,*

(b) and $\Pr(\tau_I = \overline{\theta} | \pi = \pi_{sq}) < p$ *and is increasing in y.*

Proof. Suppose the incumbent uses a threshold strategy such that she implements the reform if and only if $q_I \geq q_{sq} + y$, for $y \in (-q_{sq}, \infty)$.

(a) $\Pr(\tau_I = \overline{\theta} | \pi = \pi_I) = \frac{(1-F(q_{sq}+y))p}{(1-F(q_{sq}+y))p + (1-G(q_{sq}+y))(1-p)} > p$ if

$$(1 - F(q_{sq} + y)) > p(1 - F(q_{sq} + y)) + (1-p)(1 - G(q_{sq} + y)),$$

which is immediate due to MLRP implying FOSD.

Rearranging, $\Pr(\tau_I = \overline{\theta}|\pi = \pi_I) = \frac{1}{1+\frac{1-p}{p}\frac{(1-G(q_{sq}+y))}{(1-F(q_{sq}+y))}}$. Differentiating the ratio of the CDFs in the denominator with respect to y,

$$\frac{\partial}{\partial y}\frac{1-G(q_{sq}+y)}{1-F(q_{sq}+y)} = \frac{-(1-F(q_{sq}+y))g(q_{sq}+y)-(-(1-G(q_{sq}+y)f(q_{sq}+y)))}{(1-F(q_{sq}+y))^2}.$$

This is negative since

$$(1-G(q_{sq}+y)f(q_{sq}+y)) < (1-F(q_{sq}+y))g(q_{sq}+y)$$
$$\Leftrightarrow \frac{f(x)}{1-F(x)} < \frac{g(x)}{1-G(x)},$$

and the second line is the monotone hazard rate property which is implied by MLRP.

(b) $\Pr(\tau_I = \overline{\theta}|\pi = \pi_{sq}) = \frac{F(q_{sq}+y)p}{F(q_{sq}+y)p+G(q_{sq}+y)(1-p)} < p$ if

$$F(q_{sq}+y) < F(q_{sq}+y)p + G(q_{sq}+y)(1-p).$$

This is immediate due to the well-known property that MLRP implies first order stochastic dominance (FOSD).

Rearranging, $\Pr(\tau_I = \overline{\theta}|\pi = \pi_{sq}) = \frac{1}{1+\frac{1-p}{p}\frac{G(q_{sq}+y)}{F(q_{sq}+y)}}$. Differentiating the ratio of the CDFs in the denominator:

$$\frac{\partial}{\partial y}\frac{G(q_{sq}+y)}{F(q_{sq}+y)} = \frac{F(q_{sq}+y)g(q_{sq}+y)-G(q_{sq}+y)f(q_{sq}+y)}{F(q_{sq}+y)^2}.$$

This is negative since

$$F(q_{sq}+y)g(q_{sq}+y) < G(q_{sq}+y)f(q_{sq}+y)$$
$$\Leftrightarrow \frac{f(q_{sq}+y)}{g(q_{sq}+y)} > \frac{F(q_{sq}+y)}{G(q_{sq}+y)}.$$

where the last line is due to a well-known property of strict MLRP that $\frac{f(x)}{g(x)} > \frac{F(x)}{G(x)}$.

■

Lemma 4. *(a) Fix $\eta < 0$. There exists a unique $\underline{y}(q_{sq},\eta) \in (-q_{sq},\infty)$ such that $\Pr(\tau_I = \overline{\theta}|\pi = \pi_{sq}, \underline{y}(q_{sq},\eta)) = p+\eta$ and for all $y > \underline{y}(q_{sq},\eta)$, $\Pr(\tau_I = \overline{\theta}|\pi = \pi_{sq}, y) > p+\eta$.*

(b) Fix $\eta > 0$. There exists a unique $\overline{y}(q_{sq}, \eta) \in (-q_{sq}, \infty)$ such that for $\Pr(\tau_I = \overline{\theta}|\pi = \pi_I, \overline{y}(q_{sq}, \eta)) = p + \eta$ and for all $y > \overline{y}(q_{sq}, \eta)$, $\Pr(\tau_I = \overline{\theta}|\pi = \pi_I) > p + \eta$.

Proof. (a) Suppose $\eta < 0$.

$$\lim_{y \to -q_{sq}} \Pr(\tau_I = \overline{\theta}|\pi = \pi_{sq}, y) = \frac{1}{1 + \frac{1-p}{p}\frac{g(0)}{f(0)}} \equiv \underline{L},$$

and by Lemma 3, $\Pr(\tau_I = \overline{\theta}|\pi = \pi_{sq}, y)$ is strictly increasing in y. Hence, if

$$\eta > \underline{L} + p \equiv \underline{\eta}, \tag{2}$$

there exists a unique $\underline{y} \in (-q_{sq}, \infty)$ such that $\Pr(\tau_I = \overline{\theta}|\pi = \pi_{sq}, \underline{\eta}) = p + \eta$, and for all $y > \underline{y}$, $\Pr(\tau_I = \overline{\theta}|\pi = \pi_{sq}, \underline{y}) > p + \eta$. Moreover, $\underline{y}$ is the y that solves

$$\frac{F(q_{sq} + y)p}{F(q_{sq} + y)p + G(q_{sq} + y)(1 - p)} = p + \eta,$$

and hence $\underline{y}$ is a function of η and q_{sq}.

(b) Suppose $\eta > 0$. By Lemma 3, $\Pr(\tau_I = \overline{\theta}|\pi = \pi_I)$ is strictly increasing in y. Moreover, $\Pr(\tau_I = \overline{\theta}|\pi = \pi_I, y)$ is a probability so it is bounded above by one. Hence, there is a least upper bound of $\Pr(\tau_I = \overline{\theta}|\pi = \pi_I, y)$, and this is the limit as $y \to \infty$. Call this least upper bound $\overline{L}$. Hence, if

$$\begin{aligned} & p + \eta < \overline{L} \\ \Leftrightarrow\ & \eta < \overline{L} - p \equiv \overline{\eta}, \end{aligned} \tag{3}$$

there exists $\overline{y}(q_{sq}, \eta)$ such that $\Pr(\tau_I = \overline{\theta}|\pi = \pi_I, y) \geq p + \eta$ for all $y \geq \overline{y}(q_{sq}, \eta)$. Moreover, $\overline{y}$ is the y that solves

$$\frac{(1 - F(q_{sq} + y))p}{(1 - F(q_{sq} + y))p + (1 - G(q_{sq} + y))(1 - p)} = p + \eta,$$

and hence is a function of η and q_{sq}.

■

Proposition 10. *Fix π_{sq} and $\eta < 0$.*

(a) If $-(\hat{x} - x_{sq})^2 \leq r - q_{sq}$, there is a unique PBE where the incumbent implements the reform for all q_I and is always reelected on the equilibrium path.

(b) If $-(\hat{x}-x_{sq})^2 \in (r-q_{sq}, \underline{y}(q_{sq},\eta)+r)$, there is a PBE where the incumbent implements the reform if and only if (6) is satisfied, and is reelected if and only if she implements the reform.

(c) If $-(\hat{x}-x_{sq})^2 \in [\underline{y}(q_{sq},\eta), \underline{y}(q_{sq},\eta)+r]$, there is a PBE where the incumbent implements the reform if and only if (8) is satisfied, and is reelected with probability one if she implements the reform and with probability $\rho^* \in [0,1]$ if she retains the status quo.

(d) If $-(\hat{x}-x_{sq})^2 > \underline{y}(q_{sq},\eta)$, there is a PBE where the incumbent implements the reform if and only if (7) is satisfied, and is always reelected.

Proof. Fix π_{sq} and $\eta < 0$, and suppose that off the equilibrium path the voter believes the incumbent has high ability with probability μ. By Lemma 3, the incumbent is reelected when she implements the reform in any PBE.

Suppose there is a PBE where the incumbent implements the reform for all q_I. Then on the path the voter's posterior equals his prior. $p > p+\eta$ for $\eta < 0$, which implies that the incumbent is always reelected on the equilibrium path. If she deviates off the path and retains the status quo, she is not reelected since $\mu < p+\eta$ for all $\eta < 0$ and satisfying Assumption 1. Hence, for this PBE to exist, it must be that

$$0 \geq q_{sq} - (\hat{x}-x_{sq})^2 - r, \tag{4}$$

which ensures the incumbent prefers changing the status quo to retaining even if $q_I = 0$. This shows (a) in the proposition.

It remains to consider PBE where the incumbent reforms and retains the status quo on the equilibrium path. By Lemma 4, $\underline{y}(q_{sq},\eta)$ exist. Hence, there are three possibilities: $\underline{y}(q_{sq},\eta) > y^*$, $\underline{y}(q_{sq},\eta) < y^*$, and $\underline{y}(q_{sq},\eta) = y^*$. Note, that in any PBE where the incumbent reforms and retains on the equilibrium path, it must be that

$$y^* > -q_{sq} \tag{5}$$

If $y^* < \underline{y}(q_{sq},\eta)$ and (5) is satisfied, the incumbent is reelected if and only if she implements the reform. Therefore, the incumbent implements the reform if and only if

$$q_I \geq q_{sq} - (\hat{x}-x_{sq})^2 - r. \tag{6}$$

For this PBE to exist, it must be that

$$-(\hat{x}-x_{sq})^2 - r < \underline{y}(q_{sq},\eta),$$

and (5) is satisfied. The first condition ensures $y^* < \underline{y}(q_{sq}, \eta)$. Combining it with (5) shows (b) in the proposition.

If $y^* > \underline{y}(q_{sq}, \eta)$ and (5) is satisfied, the incumbent is reelected whether she retains or implements the reform. Therefore, she implements the reform if and only if

$$q_I > q_{sq} - (\hat{x} - x_{sq})^2. \tag{7}$$

For this PBE to exist, it must be that

$$-(\hat{x} - x_{sq})^2 > \underline{y}(q_{sq}, \eta)$$

and (5) is satisfied. The first condition ensures $y^* > \underline{y}(q_{sq}, \eta)$. When it is satisfied, it implies (5) is satisfied. This proves (d) in the proposition.

Finally, suppose $y^* = \underline{y}(q_{sq}, \eta)$ and (5) is satisfied. Then, the voter reelects the incumbent if she implements the reform and is indifferent between the incumbent and challenger when the incumbent retains the status quo. Given this indifference, suppose the voter reelects the incumbent with probability ρ when the incumbent retains. For a particular ρ, the incumbent implements the reform if

$$q_I \geq q_{sq} - (\hat{x} - x_{sq})^2 + (\rho - 1)r. \tag{8}$$

For the voter to be indifferent, it must be that

$$-(\hat{x} - x_{sq})^2 + (\rho - 1)r = \underline{y}(q_{sq}, \eta),$$

which implies that in equilibrium $\rho^* \equiv \frac{\underline{y}(q_{sq},\eta)+(\hat{x}-x_{sq}^2)}{r} + 1$. For this PBE to exist, it must be that

$$\underline{y}(q_{sq}, \eta) \in [-(\hat{x} - x_{sq})^2 - r, -(\hat{x} - x_{sq})^2]$$

and (5) is satisfied. The first condition ensures $\rho^* \in [0, 1]$. Plugging ρ^* into the incumbent's quality threshold shows she implements the reform if and only if

$$q_I \geq q_{sq} + \underline{y}(q_{sq}, \eta),$$

and by definition $\underline{y}(q_{sq}, \eta) > -q_{sq}$. Hence, (5) is satisfied. This shows (c) in the proposition.
■

Proposition 11. *Fix π_{sq} and $\eta > 0$.*

(a) *If* $-(\hat{x}-x_{sq})^2 < -q_{sq}$*, there is a unique PBE where the incumbent implements the reform for all* q_I *and is never reelected on the equilibrium path.*

(b) *If* $-(\hat{x}-x_{sq})^2 \in (-q_{sq}, \overline{y}(q_{sq},\eta)]$*, there is a unique PBE where the incumbent implements the reform if and only if (7) is satisfied, and is never reelected.*

(c) *If* $-(\hat{x}-x_{sq})^2 > \overline{y}(q_{sq},\eta)$*, there is a unique PBE where the incumbent implements the reform if and only if (10) is satisfied, and is reelected with probability* $\rho^* \in (0,1]$ *if she implements the reform.*

Proof. Fix π_{sq} and $\eta > 0$, and suppose that off the equilibrium path the voter believes the incumbent has high ability with probability μ. By Lemma 3, the incumbent is not reelected when she retains the the status quo in any PBE.

Suppose there is a PBE where the incumbent implements the reform for all q_I. On the path, the voter's posterior equals his prior. Off the path, the voter's poster equals μ. Because the incumbent trails, she is neither reelected on the path nor off the path. Hence, this PBE exists if

$$0 \geq q_{sq} - (\hat{x}-x_{sq})^2. \tag{9}$$

This shows (a) in the proposition.

It remains to consider PBE where the incumbent reforms and retains the status quo on the equilibrium path. By Lemma 4, $\overline{y}(q_{sq},\eta)$ exists. Hence, there are three possibilities: $\overline{y}(q_{sq},\eta) > y^*$, $\overline{y}(q_{sq},\eta) < y^*$, and $\overline{y}(q_{sq},\eta) = y^*$. Note, in any such PBE, it must be that (5) is satisfied.

If $y^* < \overline{y}(q_{sq},\eta)$ and (5) is satisfied, the incumbent is never reelected. Then the incumbent implements the reform if and only if (7) is satisfied. For this PBE to exist, it must be that

$$-(\hat{x}-x_{sq})^2 < \overline{y}(q_{sq},\eta)$$

and (5) is satisfied. The first condition ensures $y^* < \overline{y}(q_{sq},\eta)$ and (5) ensures the incumbent retains on the equilibrium path. Combining them proves (b) in the proposition.

If $y^* > \overline{y}(q_{sq},\eta)$ and (5) is satisfied, the incumbent is reelected with probability one when she implements the reform but is not reelected if she retains the status quo. Then the incumbent implements the reform if and only if (6) is satisfied. For this PBE to exist, it must be that

$$-(\hat{x}-x_{sq})^2 - r > \overline{y}(q_{sq},\eta)$$

and (5) is satisfied. The first condition ensures $y^* > \overline{y}(q_{sq}, \eta)$. When it is satisfied, it implies (5) is satisfied.

Finally, suppose $y^* = \overline{y}(q_{sq}, \eta)$ and (5) is satisfied. In this case, the voter is indifferent between electing the challenger and the incumbent when the incumbent implements the reform and, hence, can reelects the incumbent with probability $\rho \in [0, 1]$. Given a particular ρ, the incumbent implements the reform if and only if

$$q_I \geq q_{sq} - (\hat{x} - x_{sq})^2 - \rho r. \tag{10}$$

For the voter to be indifferent, it must be that

$$-(\hat{x} - x_{sq})^2 - \rho r = \overline{y}.$$

which implies that in equilibrium $\rho^* \equiv \frac{-(\hat{x}-x_{sq})^2 - \overline{y}(q_{sq},\eta)}{r}$. For this PBE to exist it must be that

$$\overline{y}(q_{sq}, \eta) \in [-(\hat{x} - x_{sq})^2 - r, -(\hat{x} - x_{sq})^2]$$

and (5) is satisfied. The first condition ensures $\rho^* \in [0, 1]$. Substituting ρ^* into the incumbent's quality threshold and using the definition of $\overline{y}(q_{sq}, \eta)$ that the first condition implies (5) is satisfied. This, with the previous paragraph, shows (c). ■

Proposition 12. *Fix π_{sq} and $\eta = 0$.*

(a) If $-(\hat{x} - x_{sq})^2 \leq r - q_{sq}$, a continuum of PBE exist where the incumbent implements the reform for all q_I and is reelected with probability $\rho^* \in [0, 1]$.

(b) If $-(\hat{x} - x_{sq})^2 > r - q_{sq}$, there is a unique PBE where the incumbent implements the reform if and only if (6) is satisfied, and is reelected if and only if she implements the reform.

Proof. Fix π_{sq} and $\eta = 0$, and suppose that off the equilibrium path the voter believes the incumbent has high ability with probability μ.

Suppose there is a PBE where the incumbent implements the reform for all q_I. Then the voter's posterior on the equilibrium path equals his prior. Hence, the voter is indifferent between the challenger and incumbent and reelects the incumbent with probability $\rho \in [0, 1]$. Off the path, the voter believes the incumbent has high ability with probability μ, and hence does not reelect the incumbent because $p > \mu$. For a given ρ, a PBE exists where the incumbent implements the reform for all q_I if

$$0 \geq q_{sq} - (\hat{x} - x_{sq}) - \rho r$$

Therefore, a ρ^* exists such that the incumbent lacks a profitable deviation from changing the status quo for all q_I if (4) is satisfied. This shows (a) in the proposition.

Suppose there is a PBE where the incumbent reforms and retains the status quo on the equilibrium path. By Lemma 3, the incumbent is reelected when she implements the reform and is not reelected if she retains the status quo. Hence, the incumbent implements the reform if and only if (6) is satisfied. This is a PBE as long as (4) is not satisfied. This shows (b) in the proposition.

■

Proposition 13. *In any PBE of* Γ *surviving D1,*

$$\Pr(\tau_I = \overline{\theta} | \textit{deviation off path}) = \frac{pf(0)}{pf(0) + (1-p)g(0)}.$$

Proof. By Lemma 1, in any PBE the incumbent uses a threshold rule and implements the reform when q_I is sufficiently large. Hence, the only action that is potentially off the path is retaining the status quo.

Let σ be a PBE surviving D1 in which the incumbent implements the reform for all q_I. Let $\chi \in \mathbb{R}_+$ be this arbitrary incumbent's type. Define $D(\chi)$ as the set of reelection probabilities for which type χ strictly prefers retaining the status quo over receiving her payoff under σ, and define $D_0(\chi)$ as the set of reelection probabilities for which type χ is indifferent between retaining the status quo and receiving her payoff under σ. D1 requires the voter putting probability zero on a type χ deviating if there exists another type χ' such that $D(\chi) \cup D_0(\chi) \subseteq D(\chi')$ (Cho and Kreps, 1987).

Let $\psi \in [0,1]$ be the probability the voter elects the incumbent under σ and let $\omega \in [0,1]$ be the probability the voter elects the incumbent when she deviates off the equilibrium path. Then, an incumbent of type χ will deviate off the path if

$$\frac{\chi - q_{sq} + \psi r + (\hat{x} - x_{sq})^2}{r} < \omega.$$

Note, the lower bound on the set of ω such that the incumbent deviates is weakly decreasing in χ.

There are three cases to consider. First, suppose $0 \geq q_{sq} - (\hat{x} - x_{sq})^2 + (1-\psi)r$. Then for any $\omega \in [0,1]$, an incumbent with type $\chi = 0$ will not deviate. The incumbent's utility on the path is increasing in q_I, hence no types deviate.

Next, suppose $0 \in [q_{sq} - (\hat{x} - x_{sq})^2 + \psi r, q_{sq} - (\hat{x} - x_{sq})^2 + (1 - \psi)r]$. Therefore,

$$\frac{-q_{sq} + \psi r + (\hat{x} - x_{sq})^2}{r} > 0.$$

Thus, an incumbent of type $\chi = 0$ deviates for some realizations of q_I. Since the incumbent's utility on the path is increasing in q_I, an incumbent of type $\chi = 0$ deviates for the largest interval of ω. By D1, the voter is required to put probability one on the deviation coming from an incumbent with type $\chi = 0$. This induces the following posterior

$$\Pr(\tau_I = \overline{\theta} | \text{deviation off path}) = \frac{pf(0)}{pf(0) + (1-p)g(0)}.$$

Finally, suppose $q_{sq} - (\hat{x} - x_{sq})^2 + \psi r > 0$. Then there exist q_I such that

$$0 > \frac{q_I - q_{sq} + \lambda r + (\hat{x} - x_{sq})^2}{r}.$$

That is, there are types of incumbent that deviate for any ω. But this cannot be an equilibrium. ■

When $\eta < 0$, if $\underline{y}(q_{sq}, \eta) \in (-(\hat{x} - x_{sq})^2 - r, -(\hat{x} - x_{sq})^2)$, three PBEs satisfy equilibrium conditions (i.)-(iii.). The PBE that survives equilibrium condition (iv.) is the PBE where the incumbent implements the reform if and only if (7) is satisfied.

When $\eta > 0$, a unique PBE satisies (i.)-(iii.) of the equilibrium conditions. Hence introducing equilibrium condition (iv.) does not restrict the set of equilibria further.

When $\eta = 0$, there is a unique PBE unless $0 > q_{sq} - (\hat{x} - x_{sq})^2 - r$, in which case a continuum of equilibria exist satisfy equilibrium conditions (i.)-(iii.). However, in all of these equilibria, the incumbent implements the reform for all q_I. Hence, condition (iv.) does not restrict the set of equilibria any further.

Existence of an equilibrium with consequential policy change follows from Propositions 10, 11, and 12. By Propositions 10, 11, and 12, the incumbent's quality threshold is always weakly smaller than $-(\hat{x}-x_{sq})^2$, which proves (a) in Proposition 1. Result (b) in Proposition 1 is implied by (a) in Proposition 1 and Lemma 1.

A.3 Proposition 3

Proof. (a) I first prove the following lemma.

Lemma 5. *$\underline{y}(q_{sq}, \eta)$ and $\overline{y}(q_{sq}, \eta)$ are increasing in η.*

Proof. $y = \overline{y}(q_{sq}, \eta)$ solves

$$\frac{p(1 - F(q_{sq} + y))}{p(1 - F(q_{sq} + y)) + (1 - p)(1 - G(q_{sq} + y))} = p + \eta. \tag{11}$$

By Lemma 3, the LHS of (11) is increasing in y. Hence, if η increases, $\overline{y}(q_{sq}, \eta)$ increases to maintain equality.

Using an identical argument, the same can be shown for $\underline{y}(q_{sq}, \eta)$. ■

Fix q_{sq}. Propositions 10, 11, and 12 imply the following:

(1) If $\eta < 0$, $D(y^*_\Gamma)$ is weakly increasing in $\underline{y}(q_{sq}, \eta)$ and is always weakly smaller than $\min\{r, q_{sq} - (\hat{x} - x^2_{sq})\}$

(2) If $\eta = 0$, $D(y^*_\Gamma) = \min\{r, q_{sq} - (\hat{x} - x^2_{sq})\}$

(3) If $\eta > 0$, $D(y^*_\Gamma)$ is weakly decreasing in $\underline{y}(q_{sq}, \eta)$ and is always weakly smaller than $\min\{r, q_{sq} - (\hat{x} - x^2_{sq})\}$.

These results, combined with Lemma 5 imply that $D(y^*_\Gamma)$ is weakly increasing as η approches zero.

(b) Fix π_{sq} and η. In any equilibrium the incumbent's strategy is of the form that she implements the reform if and only if

$$q_I \geq \max\{q_{sq} - (\hat{x} - x_{sq}) - \rho^* r, 0\},$$

where $\rho^* \in [0, 1]$. If, in equilibrium, ρ^* is not a function of r, as is the case when the voter uses a pure strategy, the quality threshold is weakly decreasing in r, and hence $D(y^*_\Gamma)$ is weakly increasing. If, in equilibrium, the incumbent uses a mixed strategy, $\rho^* = \frac{-(\hat{x} - x_{sq})^2 - \overline{y}(q_{sq}, \eta)}{r}$, and hence the incumbent's strategy simplifies to her changing the status quo if and only if

$$q_I \geq q_{sq} + \overline{y}(q_{sq}, \eta),$$

which is constant in r. Hence $D(y^*_\Gamma)$ is constant in r.

It remains to consider what happens when there is a possibility of ability signaling (i.e. the incumbent does not change the status quo for all q_I in the benchmark) and when increasing r leads the incumbent to discontinuously switch her threshold. The first condition requires

$$q_I - (\hat{x} - x_{sq})^2 > 0, \tag{12}$$

and Propositions 10, 11, and 12 imply the incumbent's quality threshold is only discontinuous in r when $\eta < 0$. In particular, there is a discontinuity in the incumbent's quality threshold at $\underline{y}(q_{sq],\eta}) = -(\hat{x} - x_{sq})^2$. When $\underline{y}(q_{sq}, \eta) \leq -(\hat{x} - x_{sq})^2$, $D(y^*_\Gamma) = 0$ and when $\underline{y}(q_{sq],\eta}) > -(\hat{x} - x_{sq})^2$, $D(y^*_\Gamma) = \min\{r, q_{sq} - (\hat{x} - x^2_{sq})\}$. Hence $D(y^*_\Gamma)$ is weakly increasing for all r.

■

A.4 Proposition 4

Proof. The voter's welfare as a function of y^* is

$$\int_0^{q_{sq}+y^*} (q_{sq} - x^2_{sq})h(q_I)dq_I + \int_{q_{sq}+y^*}^{\infty} (q_I - \hat{x}^2)h(q_I)dq_I,$$

where $h(q_I) = pf(q_I) + (1-p)g(q_I)$. The first order condition is that

$$q_{sq} - x^2_{sq} - q_{sq} - y^* + \hat{x}^2 = 0.$$

Hence, the voter's welfare is maximized when

$$y^{wf} = \begin{cases} -q_{sq} & \text{if } q_{sq} - x^2_{sq} + \hat{x}^2 \leq 0 \\ -x^2_{sq} + \hat{x}^2 & \text{if } q_{sq} - x^2_{sq} + \hat{x}^2 > 0 \end{cases}$$

Moreover, the voter's welfare is increasing in y^* for $y^* < -x^2_{sq} + \hat{x}^2$, and is decreasing in y^* for $y^* > -x^2_{sq} + \hat{x}^2$.

In $\hat{\Gamma}$, $y^* = -(\hat{x} - x_{sq})^2$. Hence, $-(\hat{x} - x_{sq})^2 \leq y^{wf}$ by the assumption that $(x_I - xsq)^2 \geq x^2_{sq}$. By Proposition 1, in any equilibrium of Γ, $y^* \leq -(\hat{x} - x_{sq})^2$. Hence, the voter's welfare is weakly lower. ■

A.5 Proposition 5

Proof. Fix π_{sq} and η. In any equilibrium the incumbent's strategy is of the form that she implements the reform if and only if

$$q_I \geq \max\{q_{sq} - (\hat{x} - x_{sq}) - \rho^* r, 0\},$$

where $\rho^* \in [0, 1]$. If, in equilibrium, ρ^* is not a function of $\hat{x}$, as is the case when the voter uses a pure strategy, the quality threshold is weakly decreasing in $(\hat{x} - x_{sq})^2$, and hence the probability of policy change is weakly increasing. If, in equilibrium, the incumbent uses a mixed strategy, $\rho^* = \frac{-(\hat{x}-x_{sq})^2 - \overline{y}(q_{sq},\eta)}{r}$, and hence the incumbent's strategy simplifies to her changing the status quo if and only if

$$q_I \geq q_{sq} + \overline{y}(q_{sq}, \eta),$$

which is constant in $(\hat{x} - x_{sq})^2$.

It remains to consider what happens when there is a possibility of ability signaling and when increasing $(\hat{x} - x_{sq})^2$ leads the incumbent to discontinuously switch her threshold. The first condition requires (12). The second condition requires $\eta < 0$ as Proposition 10, 11, and 12 imply that the incumbent's quality threshold is continuous in $(\hat{x} - x_{sq})^2$ except when $\eta < 0$. In particular, there is a discontinuity in the incumbent's quality threshold at $\underline{y}(q_{sq],\eta}) = -(\hat{x} - x_{sq})^2$. When $\underline{y}(q_{sq],\eta}) \leq -(\hat{x} - x_{sq})^2$, the probability of policy change is

$$p(1 - F(q_{sq} - (\hat{x} - x_{sq})^2)) + (1 - p)(1 - G(q_{sq} - (\hat{x} - x_{sq})^2)), \tag{13}$$

and when $\underline{y}(q_{sq}, \eta) > -(\hat{x} - x_{sq})^2$, the probability of policy change is

$$\min\{p(1 - F(q_{sq} - (\hat{x} - x_{sq})^2 - r)) + (1 - p)(1 - G(q_{sq} - (\hat{x} - x_{sq})^2 - r)), 1\}. \tag{14}$$

(13) < (14) for any $\hat{x}$, and hence the probability of policy change is weakly increasing in $(\hat{x} - x_{sq})^2$. ∎

A.6 Proposition 6

Proof. Fix q_{sq} and $\eta < 0$, and suppose $-(\hat{x} - x_{sq})^2 \in (r - q_{sq}, \underline{y}(q_{sq}, \eta))$. Hence, in the unique equilibrium of Γ, the incumbent revises and retains on the equilibrium path and is not reelected if she retains the status quo.

Suppose the incumbent chooses $x_I = \underline{x}^* \neq \hat{x}$. There are four cases to consider. First, suppose she chooses $\underline{x}^*$ sufficiently close to $\hat{x}$ that

$$-(\hat{x} - x_{sq})^2 + (\hat{x} - \underline{x}^*)^2 < \underline{y}(q_{sq}, \eta). \tag{15}$$

Then she is only reelected if she implements the reform. Hence, her expected utility is

$$\int_0^{q_{sq}-(\hat{x}-x_{sq})^2+(\hat{x}-\underline{x}^*)^2-r} (q_{sq} - (\hat{x} - x_{sq})^2) h(q_I) dq_I \\ + \int_{q_{sq}-(\hat{x}-x_{sq})^2+(\hat{x}-\underline{x}^*)^2-r}^{\infty} (q_I - (\hat{x} - \underline{x}^*)^2 + r) h(q_I) dq_I. \tag{16}$$

Differentiating,

$$\frac{\partial(16)}{\partial \underline{x}^*} = \int_{q_{sq}-(\hat{x}-x_{sq})^2+(\hat{x}-\underline{x}^*)^2}^{\infty} 2(\hat{x} - \underline{x}^*) h(q_I) dq_I.$$

The derivative is negative when $\hat{x} < \underline{x}^*$, is positive when $\hat{x} > \underline{x}^*$, and equals zero when $\underline{x}^* = \hat{x}$. Hence, the incumbent has a profitable deviation from $\underline{x}^*$ by moving $\underline{x}$ closer to $\hat{x}$, which she can do for any $\underline{x}^*$ satisfying (15).

Second, suppose that in equilibrium, $\underline{x}^*$ is chosen to be sufficiently far from $\hat{x}$ that

$$-(\hat{x} - x_{sq})^2 + (\hat{x} - \underline{x}^*)^2 > \underline{y}(q_{sq}, \eta). \tag{17}$$

Then she is reelected whether she implements the reform or not. Hence, her expected utility is

$$\int_0^{q_{sq}-(\hat{x}-x_{sq})^2+(\hat{x}-\underline{x}^*)^2} (q_{sq} - (\hat{x} - x_{sq})^2 + r) h(q_I) dq_I \\ + \int_{q_{sq}-(\hat{x}-x_{sq})^2+(\hat{x}-\underline{x}^*)^2}^{\infty} (q_I - (\hat{x} - \underline{x}^*)^2 + r) h(q_I) dq_I. \tag{18}$$

Differentiating,

$$\frac{\partial(18)}{\partial \underline{x}^*} = \int_{q_{sq}-(\hat{x}-x_{sq})^2+(\hat{x}-\underline{x}^*)^2}^{\infty} 2(\hat{x} - \underline{x}^*) h(q_I) dq_I.$$

The derivative is negative when $\hat{x} < \underline{x}^*$, is positive when $\hat{x} > \underline{x}^*$, and equals zero when $\underline{x}^* = \hat{x}$. Hence, the incumbent has a profitable deviation from $\underline{x}^*$ by moving $\underline{x}$ closer to $\hat{x}$, which can be done for any satisfying $\underline{x}^*$ satisfying (17).

Third, suppose that in equilibrium, if indifferent, the voter reelects the incumbent with probability $\rho^* < 1$, and that $\underline{x}^*$ is chosen such that

$$-(\hat{x} - x_{sq})^2 + (\hat{x} - \underline{x}^*)^2 + (\rho^* - 1)r = \underline{y}(q_{sq}, \eta).$$

That is, $\underline{x}^* = \hat{x} \pm \sqrt{\underline{y}(q_{sq}, \eta) + (\hat{x} - x_{sq})^2 - (\rho^* - 1)r}$. Then, the incumbent's expected utility is

$$\int_0^{q_{sq}+\underline{y}(q_{sq},\eta)} (q_{sq} - (\hat{x} - x_{sq})^2 + \rho^* r)h(q_I)dq_I + \int_{q_{sq}+\underline{y}(q_{sq},\eta)}^{\infty} (q_I - (\hat{x} - \underline{x}^*)^2 + r)h(q_I)dq_I. \quad (19)$$

Suppose the incumbent deviates to $\underline{x}$ sufficiently far from $\hat{x}$ that

$$-(\hat{x} - x_{sq})^2 + (\hat{x} - \underline{x})^2 + (\rho^* - 1) > \underline{y}(q_{sq}, \eta).$$

Then either $\hat{x} < \underline{x}^* < \underline{x}$ or $\hat{x} > \underline{x}^* > \underline{x}$, and the incumbent's expected utility is

$$\int_0^{q_{sq}-(\hat{x}-x_{sq})^2+(\hat{x}-\underline{x})^2} (q_{sq} - (\hat{x} - x_{sq})^2 + r)h(q_I)dq_I \\ + \int_{q_{sq}-(\hat{x}-x_{sq})^2+(\hat{x}-\underline{x})^2}^{\infty} (q_I - (\hat{x} - \underline{x})^2 + r)h(q_I)dq_I. \quad (20)$$

As $\underline{x} \to \underline{x}^*$, the incumbent's expected utility converges to

$$\int_0^{q_{sq}+\underline{y}(q_{sq},\eta)} (q_{sq} - (\hat{x} - x_{sq})^2 + r)h(q_I)dq_I + \int_{q_{sq}+\underline{y}(q_{sq},\eta)}^{\infty} (q_I - (\hat{x} - \underline{x}^*)^2 + r)h(q_I)dq_I, \quad (21)$$

which is larger than (19). Hence, there exist $\underline{x}$ sufficiently close to $\hat{x}$ that are profitable deviations.

Finally, suppose that in equilibrium, if indifferent, the voter reelects the incumbent with probability $\rho^* = 1$, and that $\underline{x}^*$ is chosen such that

$$-(\hat{x} - x_{sq})^2 + (\hat{x} - \underline{x}^*)^2 = \underline{y}(q_{sq}, \eta).$$

Hence, $\underline{x}^* = \hat{x} \pm \sqrt{\underline{y}(q_{sq}, \eta) + (\hat{x} - x_{sq})^2}$. Such an equilibrium exists if

$$\int_0^{q_{sq}+\underline{y}(q_{sq},\eta)} (q_{sq} - (\hat{x} - x_{sq})^2 + r)h(q_I)dq_I + \int_{q_{sq}+\underline{y}(q_{sq},\eta)}^{\infty} (q_I - (\hat{x} - \underline{x}^*)^2 + r)h(q_I)dq_I \\ \geq \int_0^{q_{sq}-(\hat{x}-x_{sq})^2-r} (q_{sq} - (\hat{x} - x_{sq})^2)h(q_I)dq_I + \int_{q_{sq}-(\hat{x}-x_{sq})^2-r}^{\infty} (q_I + r)h(q_I)dq_I, \quad (22)$$

where $h(q_I) = pf(q_I) + (1-p)g(q_I)$. Rearranging, (22) is satisfied if

$$\int_{q_{sq}-(\hat{x}-x_{sq})^2-r}^{q_{sq}+\underline{y}(q_{sq},\eta)} (q_{sq} - (\hat{x} - x_{sq})^2 - q_I)h(q_I)dq_I \\ - \int_{q_{sq}+\underline{y}(q_{sq},\eta)}^{\infty} ((\hat{x} - \underline{x}^*)^2)h(q_I)dq_I + \int_0^{q_{sq}-(\hat{x}-x_{sq})^2-r} (r)h(q_I)dq_I \geq 0. \quad (23)$$

Suppose in particular that q_{sq} and η are such that $\underline{y}(q_{sq},\eta) = 0$. Furthermore, suppose $x_{sq} = 0$. Substituting in $\underline{x}^*$, as $\hat{x} \to x_{sq}$, the LHS of (23) converges to

$$\int_{q_{sq}-r}^{q_{sq}} (q_{sq} - q_I)h(q_I)dq_I + \int_0^{q_{sq}-r} (r)h(q_I)dq_I.$$

which is positive. Since the LHS of (23) is continuous in $\hat{x}$, for $\hat{x}$ sufficiently close to x_{sq}, the incumbent chooses $\underline{x}^*$.

■

A.7 Lemma 2

Proof. Suppose in a PBE, the probability the challenger wins reelection when he blocks a proposed reform is $\omega^* \in [0,1]$ and the probability he wins reelection if he accepts a proposed reform is $\alpha^* \in [0,1]$. Note, (i.) one of the challenger's actions might be off the equilibrium path, and (ii.) neither ω^* nor α^* depend on q_I. Then, the challenger accepts the proposed reform if and only if $q_I \geq q_{sq} + z^*$, where

$$z^* = \begin{cases} -q_{sq} & \text{if } q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + (\omega^* - \alpha^*)r < 0 \\ -(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + (\omega^* - \alpha^*)r & \text{if } q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + (\omega^* - \alpha^*)r \geq 0. \end{cases}$$

Since this is true for any PBE, it must be true for any equilibrium as defined in Section 2.

■

A.8 Proposition 7

In Propositions 15, 14, and 16 I provide characterization of all PBE where the incumbent proposes the reform for all q_I and where off the path the voter believes the incumbent has high ability with probability μ if the challenger deviates. I then show that D1 forces the voter to believe $\Pr(\tau_I = \overline{\theta}) = \mu$ given a deviation off the path. Proposition 7 follows from applying equilibrium condition (iv.) to Propositions 15, 14, and 16.

Proposition 14. *Fix q_{sq} and $\eta < 0$. Suppose the incumbent proposes the reform for all q_I.*

(a) If $-(\hat{x}_C - x_{sq})^2 \leq -q_{sq} - (\hat{x}_C - \hat{x})^2 - r$, there is a unique PBE where the challenger accepts all proposed reforms, and the incumbent is always reelected.

(b) If $-(\hat{x}_C - x_{sq})^2 \in (-q_{sq} - (\hat{x}_C - \hat{x})^2 - r, \underline{y}(q_{sq}, \eta) - (\hat{x}_C - \hat{x})^2 - r]$, there is a unique PBE where the challenger accepts the proposed reform if and only if (27) is satisfied, and the incumbent is only reelected if the challenger accepts the proposed policy change.

(c) If $-(\hat{x}_C - x_{sq})^2 \in (\underline{y}(q_{sq}, \eta) - (\hat{x}_C - \hat{x})^2 - r, \underline{y}(q_{sq}, \eta) - (\hat{x}_C - \hat{x})^2)$, there is a unique PBE where the challenger accepts the proposed reform if and only if (28) is satisfied, and the incumbent is reelected with probability one if the challenger accepts the proposed reform and with probability $\rho^* \in (0, 1)$ if the challenger blocks the proposed reform .

(d) If $-(\hat{x}_C - x_{sq})^2 \geq \underline{y}(q_{sq}, \eta) - (\hat{x}_C - \hat{x})^2$, there is a unique PBE where the challenger accepts the proposed reform if and only if (26) is satisfied, and the incumbent is always reelected.

Proof. Fix q_{sq} and $\eta < 0$, and suppose that off the equilibrium path the voter believes the incumbent has high ability with probability μ. Recall that by assumption the incumbent proposes the reform for all q_I. By Lemma 4, in any PBE, the incumbent is reelected if the challenger accepts the proposed reform .

Suppose there is a PBE where the challenger accepts every proposed reform . In this case, the voter's posterior equals his prior, and because the incumbent leads, she is reelected on the equilibrium path. If the challenger deviates, the incumbent is not reelected because $\mu < p + \eta$ for all η satisfying Assumption 1. Hence, for this equilibrium to exist, it must be that

$$0 \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r. \tag{24}$$

This shows (a) in the proposition

It remains to consider cases where the challenger accepts and rejects proposed reforms on the equilibrium path. That is, when (24) is not satisfied. By Lemma 4, $\underline{y}(q_{sq}, \eta)$ exists. Hence, there are three cases: $z^* > \underline{y}(q_{sq}, \eta)$, $z^* < \underline{y}(q_{sq}, \eta)$, and $z^* = \underline{y}(q_{sq}, \eta)$. And, in any of these cases, it must be that

$$z^* > -q_{sq}. \tag{25}$$

First, suppose $\underline{y}(q_{sq}, \eta) < z^*$, in which case the incumbent is reelected whether her proposed reform is accepted or blocked. Then the challenger accepts a proposed reform if and only if

$$q_I \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2. \tag{26}$$

For this PBE to exist, it must be that

$$-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 > \underline{y}(q_{sq}, \eta)$$

and (25) is satisfied. The first condition ensures $\underline{y}(q_{sq}, \eta) < z^*$ and the second ensures the challenger accepts and rejects proposed reforms on the equilibrium path. The first condition implies the second. This shows (d) in the proposition.

Next, suppose $\underline{y}(q_{sq}, \eta) > z^*$. In this case the incumbent is reelected if her proposed reform is accepted but not if it is blocked. Then, the challenger accepts the incumbent's proposed reform if and only if

$$q_I \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r. \tag{27}$$

For this equilibrium to exist, it must be that

$$-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r < \underline{y}(q_{sq}, \eta)$$

and (25) is satisfied. The first condition ensures $\underline{y}(q_{sq}, \eta) > z^*$ and the second ensures the challenger accepts and rejects proposed reforms on the equilibrium path. This shows (b).

Finally, suppose $\underline{y} = z^*$. The the voter is indifferent when the challenger blocks a proposed reform , and reelects the incumbent with probability ρ. Hence, given ρ, the challenger accepts a proposed reform if and only if

$$q_I \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + (1 - \rho) r. \tag{28}$$

For the voter to be indifferent, it must be that

$$\rho^* = \frac{-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r - \underline{y}(q_{sq}, \eta)}{r}.$$

Fir for this equilibrium to exist it must be that

$$\underline{y}(q_{sq}, \eta) \in [-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2, -(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r]$$

and (25) is satisfied. The first condition ensures $\rho^* \in [0,1]$ and the second ensures the challenger accepts and rejects proposes reforms on the equilibrium path. Substituting ρ^* into the challenger's quality threshold shows that the first condition implies the second. This shows with the previous paragraph shows (c). ■

Proposition 15. *Fix q_{sq} and $\eta > 0$. Suppose the incumbent proposes the reform for all q_I.*

(a) If $-(\hat{x}_C - x_{sq})^2 \leq -q_{sq} - (\hat{x}_C - \hat{x})^2$, there is a unique PBE where the challenger accepts all proposed reforms, and the incumbent is never reelected.

(b) If $-(\hat{x}_C - x_{sq})^2 \in (-q_{sq} - (\hat{x}_C - x_{sq})^2, \overline{y}(q_{sq}, \eta) - (\hat{x}_C - x_{sq})^2)$, there is a PBE where the challenger accepts the proposed reform if and only if (26) is satisfied, and the incumbent is never reelected.

(c) If $-(\hat{x}_C - x_{sq})^2 \in [\underline{y}(q_{sq}, \eta) - (\hat{x}_C - \hat{x})^2 - r, \underline{y}(q_{sq}, \eta) - (\hat{x}_C - \hat{x})^2]$, there is a PBE where the challenger accepts the proposed reform if and only if (30) is satisfied, and the incumbent is reelected with probability $\rho^* \in [0,1]$ if the proposed reform is accepted.

(d) If $-(\hat{x}_C - x_{sq})^2 > \overline{y}(q_{sq}, \eta) - (\hat{x}_C - x_{sq})^2 - r$, there is a PBE where the challenger accepts the proposed reform if and only if (27) is satisfied, and the incumbent is reelected if the proposed reform is accepted.

Proof. Fix q_{sq} and $\eta > 0$, and suppose the incumbent proposes the reform for all q_I. Furthermore, suppose that off the equilibrium path the voter believes the challenger is high ability with probability μ. By Lemma 4, in any PBE, the incumbent is replaced if the challenger blocks the proposed reform .

First, suppose there is a PBE where the challenger accepts every proposed reform . On the path, the voter's posterior equals his prior so the incumbent is not reelected because she trails. And by the assumption about the off-the-path belief induced by deviation, the incumbent is also not reelected if the challenger deviates. Hence, for this to be a PBE it must be that

$$0 \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2. \tag{29}$$

This shows (a).

It remains to consider cases where the challenger accepts and rejects proposed reforms on the equilibrium path. That is, when (29) is not satisfied. By Lemma 4, $\overline{y}(q_{sq}, \eta)$ exists. Hence, there are three cases: $z^* > \overline{y}(q_{sq}, \eta)$, $z^* < \overline{y}(q_{sq}, \eta)$, and $z^* = \overline{y}(q_{sq}, \eta)$.

First suppose $z^* > \underline{y}(q_{sq}, \eta)$, in which case the incumbent is reelected if the challenger accepts the proposed reform but not otherwise. Then, the challenger accepts a proposed reformif (27) is satisfied. For this to be a PBE, it must be that

$$-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r > \underline{y}(q_{sq}, \eta)$$

and (25). The first condition ensures $z^* > \underline{y}(q_{sq}, \eta)$ and the second ensures the challenger accepts and rejects proposed reforms on the equilibrium path. The first condition implies the second. This shows (d).

Next, suppose $z^* < \underline{y}$, in which case the challenger is reelected whether or not he accepts the proposed reform. Then, the challenger accepts a proposed reformif and only if (26) is satisfied. For this to be a PBE, it must be that

$$-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 < \underline{y}(q_{sq}, \eta)$$

and (25). The first condition ensures $z^* < \underline{y}$ and the second condition ensures the challenger accepts and rejects proposed reforms on the equilibrium path. Combining the conditions shows (b) in the proposition.

Finally, suppose $z^* = \overline{y}$, in which case the voter is indifferent between the incumbent and challenger when the challenger accepts a proposed reform. Hence, he reelects the incumbent with probability ρ. Given ρ, the challenger accepts a proposed reformif

$$q_I \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + \rho r. \tag{30}$$

For the voter to be indifferent, it must be that

$$\rho^* = \frac{\overline{y}(q_{sq}, \eta) - +(\hat{x}_C - x_{sq})^2 - (\hat{x}_C - \hat{x})^2}{r}.$$

For this to be a PBE, it must be that

$$\overline{y}(q_{sq}, \eta) \in [-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2, -(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r]$$

and (25). The first condition ensures $\rho^* \in [0, 1]$ and the second ensures the challenger accepts and rejects proposed reforms on the equilibrium path. Substituting ρ^* into the challenger's quality threshold shows that the first condition implies the second. This shows (c). ■

Proposition 16. *Fix q_{sq} and $\eta = 0$. Suppose the incumbent proposes the reform for all q_I.*

(a) If $-(\hat{x}_C - x_{sq})^2 \leq -q_{sq} - (\hat{x}_C - \hat{x})^2$, there is a PBE where the challenger accepts all proposed reforms, and the incumbent is reelected with probability $\rho^* \in [0, 1]$.

(b) If $-(\hat{x}_C - x_{sq})^2 > -q_{sq} - (\hat{x}_C - \hat{x})^2 - r$, there is a PBE where the challenger accepts

the proposed reformif and only if (27) is satisfied, and the incumbent is reelected if the proposed reformis accepted.

Proof. Fix q_{sq} and $\eta = 0$, and suppose the incumbent proposes the reform for all q_I. Furthermore, suppose that off the equilibrium path the voter believes the challenger is high ability with probability μ.

Additionally, suppose there is a PBE where the challenger accepts any proposed reform. Then on the path the voter is indifferent between the challenger and incumbent and reelects the incumbent with probability $\rho \in [0, 1]$. If the challenger deviates, he is reelected since $\mu < p$. For a given ρ, this PBE exists if

$$0 \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + \rho r.$$

Hence, this PBE exists if $0 \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2$. This shows (a).

Now suppose there is a PBE where the challenger accepts and blocks proposed reforms on the equilibrium path. Hence, the incumbent is reelected when the challenger accepts a proposed reformand is not reelected when the challenger blocks a proposed reform. Thus, the challenger will agree to a proposed reformif and only if

$$q_I \geq q_{sq} - (\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r.$$

For this to be an equilibrium it must be that (25) is satisfied ■

Proposition 17. *In any PBE of Γ^{sb} surviving D1,*

$$\Pr(\tau_I = \overline{\theta} | \textit{deviation off path}) = \frac{pf(0)}{pf(0) + (1-p)g(0)}.$$

Proof. Because I focus on equilibria where the incumbent proposes the reform for all q_I, the only action that is potentially off the equilibrium path is an action by the challenger. Moreover, Lemma 2 implies that in any PBE the challenger uses a threshold. Hence, the only action that is off the path is blocking a proposed reform.

Let σ be a PBE surviving D1 in which the challenger accepts every proposed reform, and let $\varphi \in \mathbb{R}_+$ be an arbitrary type of challenger. Then, having observed $q_I = \varphi$, the challenger's utility from accepting the proposed reformis

$$\varphi - (\hat{x}_C - x_I)^2 + \omega^* r,$$

where $\omega^* \in [0, 1]$ is the probability the challenger is elected if he accepts the proposed reformunder σ. This utility is increasing in q_I, hence his utility on the path is lowest when

$q_I = 0$ If he deviates off the path, his utility is

$$q_{sq} - (\hat{x}_C - x_{sq})^2 + \alpha r$$

where $\alpha \in [0, 1]$ is the probability the challenger is elected if he accepts the proposed reform. This utility does not depend on q_I. By a similar argument to the proof of Proposition 13, if, in a PBE, the challenger is willing to deviate for some α, he will deviate for the largest set of α when $\varphi = 0$. Hence, D1 forces the voter to believe

$$\Pr(\tau_I = \overline{\theta}|\text{deviation off path}) = \frac{pf(0)}{pf(0) + (1-p)g(0)}.$$

■

When $\eta < 0$, there is always a unique PBE satisfying equilibrium conditions (i.)-(iii.).

When $\eta = 0$, a multiple PBEs exist when $0 \geq q_{sq} - (\hat{x}_C - \hat{x})^2 + (\hat{x}_C - x_{sq})^2$. If $0 \geq q_{sq} - (\hat{x}_C - \hat{x})^2 + (\hat{x}_C - x_{sq})^2 + r$, then in all PBEs the challenger blocks all policy change so introducing equilibrium condition (iv.) does not restrict the set of PBEs. But if $q_{sq} - (\hat{x}_C - \hat{x})^2 + (\hat{x}_C - x_{sq})^2 + r > 0$ and $0 \geq q_{sq} - (\hat{x}_C - \hat{x})^2 + (\hat{x}_C - x_{sq})^2$, the unique equilibrium surviving (4) is the equilibrium where the challenger accepts and blocks on the equilibrium path.

When $\eta > 0$, there is a unique PBE surviving (i.)-(iii.) unless $\overline{y}(q_{sq}, \eta) \in (-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2, -(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r)$, in which case there are three. The PBE surviving (4) is the one where the challenger accepts policy change if and only if (27) is satisfied.

In $\hat{\Gamma}^v$, the challenger's quality threshold is $-(\hat{x}_C - x_{sq}) + (\hat{x}_C - \hat{x})$, which is weakly positive by Assumption 2. Comparing this to the quality thresholds in Propositions 14, 15, and 16 shows that the challenger's quality threshold is weakly higher in any equilibrium of Γ^v than in $\hat{\Gamma}^v$. This proves (a) from Proposition 7. Part (c) follows immediately from (a), and part (b) follows from (a) and Assumption 2.

A.9 Proposition 8

Proof. Recall from Lemma 5 that $\underline{y}(q_{sq}, \eta)$ and $\overline{y}(q_{sq}, \eta)$ are increasing in η.

Fix q_{sq}. Propositions 14, 15, and 16 imply the following:

(1) If $\eta < 0$, $D^*(y^*_{\Gamma^v})$ is weakly increasing in $\underline{y}(q_{sq}, \eta)$ and $D^*(y^*_{\Gamma^v})$ is weakly less than $\min\{r, q_{sq} - (\hat{x} - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r\}$

(2) If $\eta = 0$, $D^*(y^*_{\Gamma^v}) = \min\{r, q_{sq} - (\hat{x} - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r\}$.

(3) If $\eta > 0$, $D^*(y^*_{\Gamma^v})$ is weakly decreasing in $\overline{y}(q_{sq}, \eta)$ and $D^*(y^*_{\Gamma^v})$ is weakly less than $\min\{r, q_{sq} - (\hat{x} - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 + r\}$.

These results combined with Lemma 5 imply that $D^*(y^*_{\Gamma^v})$ is weakly increasing as η approaches zero.

■

A.10 Proposition 9

Fix q_{sq} and $\eta < 0$.

In Γ, if $\underline{y}(q_{sq}, \eta) > -(\hat{x} - x_{sq})^2 > -q_{sq}$, the incumbent is reelected if and only if she implements the reform. And in Γ^v, if $\underline{y}(q_{sq}, \eta) \leq -(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2$, the incumbent is reelected regardless of whether the challenger accepts this proposed reform. Hence, if

$$-(\hat{x}_C - x_{sq})^2 + (\hat{x}_C - \hat{x})^2 > -(\hat{x} - x_{sq})^2, \tag{31}$$

the probability of reelection in Γ is lower than the probability of reelection in Γ^v. Condition (31) is satisfied if the challenger's ideological benefit from policy change is strictly smaller than the incumbent's.

B Robustness

B.1 Second Policymaking Period

Suppose that after the election, there is a second policymaking period where the then-incumbent j develops an alternative $\check{\pi} = (\check{x}_j, \check{q}_j)$ and chooses whether to replace the status quo, $\check{\pi}_{sq} = (0, 0)$.

Incumbent j implements the reform for all $\check{q}_j$. Hence, the voter strictly prefers to elect the incumbent in the first period if

$$\Pr(\tau_I = \overline{\theta}|\cdot) \int_0^\infty \check{q}_I f(\check{q}_I) d\check{q}_I + (1 - \Pr(\tau_I = \overline{\theta}|\cdot)) \int_0^\infty \check{q}_I g(\check{q}_I) d\check{q}_I - \check{x}$$
$$> p \int_0^\infty \check{q}_C f(\check{q}_C) d\check{q}_C + (1 - p) \int_0^\infty \check{q}_C g(\check{q}_C) d\check{q}_C - \check{x}_C.$$

This condition is equivalent to

$$\Pr(\tau_I = \overline{\theta}|\cdot) > p + \eta,$$

where $\eta = \frac{(x_V - \check{x})^2 - (\check{x}_V - \check{x}_C)^2}{\int_0^\infty \check{q} f(\check{q}) d\check{q} - \int_0^\infty \check{q} g(\check{q}) d\check{q}}$.

B.2 Incumbent Knows Her Type

Suppose the incumbent knows her type. Furthermore, suppose that in equilibrium, the voter reelects the incumbent with probability $\lambda^* \in [0,1]$ when the incumbent retains the status quo, and with probability $\kappa^* \in [0,1]$ when the incumbent implements the reform. Then an incumbent of type τ_j implements the reform if and only if

$$q_I \geq q_{sq} - (\hat{x} - x_{sq})^2 + (\lambda^* - \kappa^*) r.$$

Note, the incumbent's strategy does not depend on her type.

B.3 Election Outcome Affects Policy

Consider a game where the incumbent chooses $\dot{\pi} \in \{\pi_{sq}, \pi_I\}$. If the incumbent is reelected, $\pi = \dot{\pi}$. If the voter elects the challenger, $\pi = \pi_{sq}$. Moreover, assume $f(q_I) = \lambda_f e^{-\lambda_g q_I}$ and $g(q_I) = \lambda_g e^{-\lambda_g q_I}$ with $\lambda_g > \lambda_f$.

If the voter elects the challenger, his expected utility is

$$p - x_{sq}^2 + q_{sq} + \eta. \tag{32}$$

If $\dot{\pi} = \pi_I$ and the voter elects the incumbent, his expected utility is

$$\Pr(\tau_I = \overline{\theta} | \dot{\pi} = \pi_I, y^*) - \hat{x}^2 + \int_{q_{sq}+y^*}^{\infty} q_I h(q_I) dq_I, \tag{33}$$

and if $\dot{\pi} = \pi_{sq}$ and the voter elects the incumbent, his expected utility from electing the incumbent is

$$\Pr(\tau_I = \overline{\theta} | \dot{\pi} = \pi_{sq}, y^*) - x_{sq}^2 + q_{sq}. \tag{34}$$

Suppose there is a PBE where the incumbent's decision is not electorally relevant either because she is reelected regardless or is not reelected regardless of her decision. In this PBE, the incumbent implements the reform if and only if

$$q_I \geq q_{sq} - (\hat{x} - x_{sq})^2.$$

Suppose instead that there is a PBE where the incumbent reforms and retains on the equilibrium path, and is reelected only if she implements the reform. In this PBE, the incumbent implements the reform if and only if

$$q_I \geq q_{sq} - (\hat{x} - x_{sq})^2 - r.$$

Hence, when policy change is electorally consequential, the incumbent implements the reform more than she does when policy change is not electorally consequential.

To show existence of a PBE where policy change is not electorally consequential, suppose $\hat{x} = 0$ and $y^* > -q_{sq}$. If $\eta < 0$, the voter strictly prefers to reelect the incumbent if she retains if

$$\frac{1}{1 + \frac{1-p}{p}\frac{e^{-\lambda_g(q_{sq}-(x_{sq})^2)}}{e^{-\lambda_f(q_{sq}-(x_{sq})^2)}}} - p \equiv \underline{\eta}(x_{sq}, x_I) > \eta, \tag{35}$$

and strictly prefers to reelect the incumbent if she implements the reform if

$$\Pr(\tau_I = \overline{\theta}|\dot{\pi} = \pi_I, y^*) + \int_{q_{sq}-(x_{sq})^2}^{\infty} q_I(p\lambda_f e^{-\lambda_f q_I} + (1-p)\lambda_g e^{-\lambda_g q_I})dq_I > p - x_{sq}^2 + q_{sq} + \eta \tag{36}$$

Since the incumbent uses a threshold strategy, $\Pr(\tau_I = \overline{\theta}|\dot{\pi} = \pi_I, y^*) > p$ for all y^*. Moreover, if $x_{sq} = 0$,

$$\int_{q_{sq}-(x_{sq})^2}^{\infty} q_I(p\lambda_f e^{-\lambda_f q_I} + (1-p)\lambda_g e^{-\lambda_g q_I})dq_I > q_{sq}$$

The voter's expected utility from electing the incumbent is continuous in x_{sq} as is her expected utility from electing the challenger. Hence, for x_{sq} sufficiently close to zero that (36) is satisfied, η sufficiently negative that (35) is satisfied, and q_{sq} sufficiently large that $q_{sq} > x_{sq}^2$, which ensures the incumbent retains and implements the reform on the equilibrium path, there is a PBE where the incumbent is reelected whether she retains or implements the reform.

Continue to suppose $\hat{x} = 0$ and $y^* > -q_{sq}$. If $\eta > 0$, the incumbent is never reelected if she retains the status quo since $p + \eta > \Pr(\tau_I = \overline{\theta}|\dot{\pi} = \pi_{sq}, y^*)$ for all y^*. However, she is reelected if she implements the reform if (36) is satisfied. Suppose $x_{sq}^2 < \eta$. By a similar argument to above, if x_{sq} is sufficiently close to zero, (36) is satisfied, Hence, for x_{sq} sufficiently close to zero that (36) is satisfied, η sufficiently small that $\eta < x_{sq}^2$, and q_{sq} sufficiently large that $q_{sq} > x_{sq}^2 + r$, there is a PBE where the incumbent is reelected if and only if she changes status quo.