Persuasion with Partisanship: The Informational Content of Policymaking with Application to U.S. Governors

Hassan Sayed*

December 3, 2024.

Click here for latest version.

Abstract

I study a model where a political executive's policy agenda generates information about her ability. Since policies favoring a single party are harder to pass, the partisanship of an agenda influences what success or failure of passage communicates about ability. The model delivers a U-shape relationship between an executive's ex-ante winning chances and her agenda's partisanship. Executives likely to lose pursue partisan policies to save their winning chances. Those likely to win embrace partisan policies whose failure can be blamed on the legislature. Those in the middle pursue bipartisan policies to secure reelection. I use these insights to analyze the partisanship of U.S. governors' policy proposals from 1990-2020, showing that while partisanship has risen on average, there is sizeable variation at the governor level. I interpret these variations as responses to electoral incentives by testing the model and showing a U-shaped relationship between partisanship and approval ratings.

JEL Codes: D72, D73, D78, D83

Keywords: partisanship, persuasion, policy learning, polarization, reputation, accountability, governors, state politics, executives

*hsayed@princeton.edu . I thank Jenna Anders, Ben Arold, Roland Bénabou, Ellora Derenoncourt, Mira Frick, Allie Green, Faruk Gul, Gleason Judd, Quan Le, Alessandro Lizzeri, Nicolas Lonquet-Marx, Nolan McCarty, Manuel Perez Archila, Kim Sarnoff, Carol Shou, Martin Vaeth; participants in the Princeton Microeconomic Theory Student Lunch Seminar, Princeton Political Economy Research Seminar, Princeton Industrial Relations Seminar, and Princeton Student Labor Lunch for productive discussions and feedback. I am especially grateful to Leah Boustan, Ilyana Kuziemko, and Pietro Ortoleva for their diligent guidance throughout the course of this project. Chas Brown and Kevin Guan provided excellent research assistance in hand-coding speeches. I acknowledge financial support from the William S. Dietrich II Economic Theory Center and the SPIA Research Program in Political Economy.

1 Introduction

Scholars have documented a rise in partisanship in the U.S. Congress since the 1990s that is apparent in political speeches, voting behavior, and policy proposals.[1] However, the role of the executive branch in shaping partisanship has been relatively understudied. Executives have played an increasingly prominent role in policymaking, so much so that they must often successfully pass and implement their policy agendas to win reelection.[2] Since passing partisan policies often requires more political skill than policies appealing to many parties, voters may assess the success or failure of a partisan policy agenda differently than a bipartisan one. Changes in what executives need to communicate about their skill to win reelection may hence generate variations in partisanship differing from those in legislative settings.

In this paper, I use a theoretical model to study electoral incentives for political executives to pursue partisan policies. I then apply its insights to explain empirical variations in the partisanship of U.S. governors' policy agendas. I develop a model where an incumbent's policy agenda generates an *information structure* mapping her political ability to a likelihood of policy success. Partisan policies that appeal only to the incumbent's party require more skill to pass, meaning their failure can be attributable to legislative opposition, while bipartisan policies that appeal to the opposition require less skill to pass, meaning their failure signals low ability. The model predicts a U-shaped relationship between an incumbent's popularity and the partisanship of her agenda. Unpopular incumbents pursue partisan agendas to salvage reelection. Popular incumbents propose partisan policies whose failure can be blamed on legislative antagonism, allowing them to maintain their popularity. Incumbents in the middle pursue safe bipartisan policies to secure reelection. The U-shape weakens as the incumbent's alignment with the legislature increases.

I then study the partisanship of U.S. gubernatorial policy agendas and test the predictions of the model. I compile a panel of governors' annual "State of the State" addresses to the legislature. The presence of 50 governors at any given time across the states offers a rich laboratory for uncovering the executive branch's role in generating variation in partisanship. I utilize large-language modeling to isolate text related to policy proposals. I measure the partisanship of these proposals via divergence in phrases used by Democrats and Republicans.

[1] See McCarty (2019) for an overview of the forces driving trends in partisanship.

[2] Andeweg, Elgie, Helms, Kaarbo, and Mller-Rommel (2020) discuss the reemergence of executive power since the mid-20th century, as well as the expanding role of the U.S. Presidency and its administrative apparatus in shaping legislative discourse. Goldgeier and Saunders (2018) note a rise in the executive branch's control over foreign policy, which has become increasingly left unchecked by Congress. Reynolds (2024) and E. Peterson (2024) provide stylized overviews of the eroding power of Congress over the executive branch. The burgeoning power of U.S. state governors, especially after the 1990s, is discussed by Heidbreder (2012).

I show that while aggregate gubernatorial partisanship has steadily increased since the early 2000s, it is lower than that estimated from the Congressional Record and that there are substantial deviations from these trends at the governor-level. [3]

With this heterogeneity in mind, I turn to the panel data to test the model's predictions. I compare the partisanship of reelectable governors' proposals to those of lame duck governors ineligible for election. This controls for forces that influence partisanship of both lame duck and reelectable governors — such as preferences for partisan policies — and thereby isolates variations in partisanship emerging from electoral concerns. I show a nonmonotonic relationship between gubernatorial approval and partisanship of policy proposals for reelectable governors, in line with the model's prediction. This relationship weakens as legislative alignment increases. Finally, I argue that the model's qualitative insights can be applied to study the policy choices of executives like the U.S. President.

Theoretical Model The baseline model considers an incumbent executive of unknown ability who chooses a policy agenda of varying partisanship. I interpret ability as an executive's managerial skill, capacity to follow through on promises, or valence, and refer to expected ability as *reputation*. An agenda's probability of passing is decreasing in its partisanship but increasing in the incumbent's ability. This captures the notion that partisan policies appealing to a single party are harder to garner support for than bipartisan compromises amenable to most of the legislature, which even low-skilled politicians may pass. A representative voter observes the incumbent's choice of agenda, whether it passes or fails, updates beliefs over the incumbent's ability, and reelects her if and only if her reputation is sufficiently high. Because incumbents are office-motivated, the predictions of the model capture the behavior of reelectable incumbents relative to lame ducks.

The key idea of the model is that an incumbent's choice of policy is, in fact, also a choice of information structure, as in models of persuasion. Given a prior over the incumbent's ability, the success or failure of an agenda generates a distribution of posteriors over ability whose skewness is determined by the agenda's partisanship. The incumbent chooses this distribution — the partisanship of her policy agenda — to maximize chances of reelection. The informativeness of success or failure is disciplined by the incumbent's alignment with the legislature. Intuitively, an incumbent aligned with her legislature has power over the government and receives credit or blame for policy successes or failures. An incumbent unaligned with her legislature can often blame policy failures on an uncooperative legislature.

The baseline model highlights a fundamental nonmonotonicity in how partisan the in-

[3]Specifically, the level of gubernatorial partisanship is below that of the Congressional level estimated by Gentzkow, Shapiro, and Taddy (2019).

cumbent's policy agenda is as her reputation increases. This is the core theoretical prediction of the model. Partisan policies are likely to fail, but reveal a high ability incumbent if they succeed. Bipartisan policies are likely to succeed, but reveal a low ability incumbent if they fail. Hence, low reputation incumbents likely to lose reelection pursue partisan policies to save their chances of retaining office. Middling reputation incumbents pursue low-risk bipartisan policies to secure reelection. High reputation incumbents pursue partisan policies whose failure can be blamed on legislative antagonism, meaning the incumbent's reputation falls by relatively less. Therefore, the model delivers a U-shaped relationship between an incumbent's reputation and the partisanship of her policy agenda.

This U-shape flattens out if legislative alignment increases. Decreasing electoral competition also makes the U-shape less salient — for example, in constituencies where an incumbent's party always wins reelection. I show that voter utility — measured as the value of learning about an incumbent's ability or flow utility provided by the incumbent's policy — is generally nonmonotonic in reputation, legislative alignment, and electoral competition.

After presenting this baseline model, I extend it by allowing endogenous differentiation of policy passage by ability. This generalization renders the model similar to a Bayesian Persuasion problem where a sender cannot totally obfuscate information; in this case, the incumbent cannot pursue a policy agenda whose success or failure is totally uninformative of her ability. [4] The mathematical flexibility of the general approach allows me to add a preference shock and write the model's predictions in terms of ex-ante *winning probability*.

I show that the partisanship of the incumbent's policy agenda indeed exhibits a U-shape as a function of ex-ante winning probability, which flattens when legislative alignment increases or competition weakens. Since proxies for politicians' winning probability — approval ratings — are readily available, the generalization delivers testable predictions of the theory: the partisanship of an executive's policy agenda should follow a U-shape as a function of her approval rating and flatten under high legislative alignment or low electoral competition.

The more general model shows that the U-shape relationship between reputation and partisanship may in fact be asymmetric. Popular incumbents may pursue *more partisan* agendas than unpopular incumbents, since low reputation incumbents prefer policies that differentiate high and low-ability incumbents, while high reputation incumbents prefer policies whose failure is as uninformative as possible. I additionally show, using the technology of the generalization, that the model's key predictions are robust to allowing multiple periods of agenda passage or allowing incumbents to choose policies from the opposing party.

[4] In particular, the model can be seen as a Bayesian Persuasion problem where a receiver (voter) is uncertain whether he observes a signal because it was endogenously chosen by a sender (incumbent) or whether it was generated by an outside source (i.e. whether a policy outcome is a consequence of the incumbent's inherent skill or the legislature's involvement).

Documenting Gubernatorial Partisanship I apply the insights of the model to explain variation in the state-level partisanship of U.S. governors' policy agendas. I begin by assembling a corpus of U.S. governors' "State of the State" speeches. These addresses to the state legislature are given in the first quarter of each year and lay out the governor's policy proposals for the coming year. I collect over 800 speeches and merge them with existing data to assemble an annual panel of over $1,300$ speeches from 1990-2020. Because these speeches also contain reflections on past policies and rhetoric, I fine-tune a large-language-model called "BERT" (Devlin, Chang, Lee, & Toutanova, 2018) to isolate speech related to policy proposals. I construct an aggregate measure of partisanship of policy proposals for each year and a panel measure for each governor-year by measuring divergence of phrase-use between Republican and Democratic governors using Gentzkow, Shapiro, and Taddy (2019).

My aggregate series shows a steady rise in partisanship of policy proposals beginning in the early 2000s that finishes with a spike in 2017.[5] Gubernatorial partisanship is consistently lower than Congressional partisanship, and the timing of changes is different. However, I show that these trends disguise sizable variation in partisanship at the governor level, such as spikes in the late 1990s surpassing the levels of the late 2010s and dips in the mid-2010s lower than those in the 1990s, raising questions about the sources of this heterogeneity.

Testing Model and Implications I then use the gubernatorial panel to explain variation in the partisanship of policy proposals through the lens of my model. To capture the effects of winning probability and legislative alignment, I interact deciles of gubernatorial approval ratings with an indicator for whether the governor's party controls the state legislature. I study how the governor-year measure of partisanship moves with changes in these variables. To highlight how electoral incentives drive variation in partisanship, I compare the partisanship of reelectable and lame duck governors, thereby controlling for governor-level policy preferences or time trends that drive partisanship but impact both groups.

I show that when comparing reelectable governors to lame ducks, partisanship of proposals exhibits a U-shape as a function of approval decile for governors unaligned with their legislatures. The speech of high or low approval governors is over one standard deviation higher relative to middle approval governors. The U-shape is weaker for governors aligned with their legislatures and states where Democratic governors consistently win elections.

These insights suggest that partisanship should be viewed not as a slow-moving aggregate but as a dynamic force shaped by electoral and strategic concerns, popularity, and legislative alignment. They offer a reputational explanation for why executives compromise with the opposition, assign credit or blame for policy outcomes, or pursue radical partisan reforms.

[5]These trends are identical when estimated on the full corpus of governor speech.

Literature This paper contributes to a theoretical literature on political reputation and career concerns by developing a model that exhibits a nonmonotonic relationship between policy extremity and reputation. By contrast, most other settings establish a negative monotonicity known as "gambling for resurrection" (Dur, 2001; Fu & Li, 2014; Izzo, 2024; Majumdar & Mukand, 2004), which would not explain the nonmonotonicities evident in the data. Additionally, I develop a model where partisanship endogenously emerges from an incumbent's desire to win reelection in a Bayesian setting, distinguishing the present paper from models where partisanship emerges as a byproduct of voters' behavioral updating methods (Izzo, Martin, & Callander, 2021; Levy & Razin, 2021). The paper's welfare insight on the ambiguous effects of electoral competition is also related to Dewan and Hortala-Vallve (2019), is studied in the settings of electoral accountability by Ashworth, De Mesquita, and Friedenberg (2017) and Bils and Izzo (2022), and is applied to executives' willingness to pursue unilateral actions in Judd (2017). These papers show how equilibrium outcomes are sensitive to parameters of competition, office rents, and voter beliefs. My model predicts a singular U-shaped relationship between partisanship and popularity that shifts or flattens with such changes.

The present paper provides insights into solving a constrained Bayesian Persuasion problem, following Kamenica and Gentzkow (2011), where a receiver is uncertain about the origin of a sender's signal. The key constraint on the sender (incumbent) in my environment is that she is unable to implement totally uninformative information structures (policy agendas). A lemma in the appendix shows how to solve this problem when senders possess concave, strictly increasing value functions, which is the primary setting in which inability to shut down information binds. To this end, the model is related to a literature on Bayesian Persuasion with mediation, multiple senders, and cheap talk (Alonso & Câmara, 2016; Arieli, Babichenko, & Sandomirskiy, 2022; Ichihashi, 2019; Lipnowski, Ravid, & Shishkin, 2022).

I contribute to the empirical literature on political accountability by comprehensively linking ideological partisanship to legislative alignment, popularity, and reelection eligibility. Prior papers study such topics as the effects of term limits and career-concerns on partisanship (Besley & Case, 1995; Iaryczower, Lopez-Moctezuma, & Meirowitz, 2024); the effect of reelection on welfare reform (Bernecker, Boyer, & Gathmann, 2021) or COVID-19 stringencies (Pulejo & Querubín, 2021); or the economic returns to holding a Congressional seat (Diermeier, Keane, & Merlo, 2005). I address the paper's connection to a literature on voter responsiveness to executives' policy choices in the data section.

I add to research on partisanship of political speech by providing a novel, unidimensional series on partisanship of political executives' speech and partisanship at the state level. Series for partisanship of speech have been studied in the U.S. Congressional Record (Gentzkow,

Shapiro, & Taddy, 2019; Jensen et al., 2012) and other countres like the UK (A. Peterson & Spirling, 2018), but the few studies at the state level have been limited to counts of pre-selected words or nationalization trends (Butler & Sutherland, 2023; Hopkins, Schickler, & Azizi, 2022). I also contribute to a literature analyzing State of the State speeches, which I discuss in the data section.

My utilization of advances in large-language-modeling techniques adds to a growing literature in Economics utilizing LLMs, including applications to labor contracts and the FOMC (Arold, Ash, MacLeod, & Naidu, 2024; Hansen, McMahon, & Prat, 2018), which are reviewed by Gentzkow, Kelly, and Taddy (2019) and Ash and Hansen (2023). I utilize the same methods as Card et al. (2022), who fine-tune two models to isolate speeches related to immigration in the Congressional Record and then categorize those speeches by sentiment.

Finally, I complement a literature on the mixed (and heterogeneous) behavior of partisanship in state and local politics utilizing roll-call data, close elections, and other non-text measures. Some studies argue that governor and mayoral party identity has little impact on partisanship of most political outcomes (Ferreira & Gyourko, 2009; Leigh, 2008), while others argue for modest or larger effects of party control on partisanship after the 1990s, measured using liberalism scores; law passage by policy domain; taxation, debt, housing stock, and public expenditures; or policy diffusion across states (Carlino, Drautzburg, Inman, & Zarra, 2023; Caughey, Xu, & Warshaw, 2017; de Benedictis-Kessner, Jones, & Warshaw, 2024; de Benedictis-Kessner & Warshaw, 2020; DellaVigna & Kim, 2022; Grumbach, 2018). Increases in partisanship of legislative voting behavior at the state level have been documented by Shor and McCarty (2011) and updated by DellaVigna and Kim (2022), although evidence is again heterogenous by state. By viewing partisan variation as products of incumbents' electoral incentives, my paper provides structure to these more heterogeneous outcomes from the standpoint of executives. To this end, the present paper differs from attempts to measure partisanship of inherent gubernatorial ideology, such as the campaign finance DIME measure constructed by Bonica (2014) and evaluated for governors in Warner (2023).

Plan of the Paper I introduce the theoretical model in the next section. I solve the baseline model, investigate welfare implications of the equilibrium result, solve the general model with a valence shock, detail data predictions, and address extensions. I then introduce the data, explain the relevance of the model to the gubernatorial setting, and detail estimation of partisanship. Next, I study how aggregate trends in partisanship mask substantial heterogeneity in the panel data. With this heterogeneity in mind, I test the predictions of the model. I conclude with a qualitative analysis of U.S. Presidents through the lens of the model and comment on the broader implications of the research.

2 Theoretical Model

I begin by introducing a benchmark model highlighting the key intuitions of the theory. After showing the central result and assessing welfare, I move to an extended model that maintains the key intuitions of the benchmark while permitting mathematical flexibility to solve the model with a valence shock. This allows me to write the model's comparative statics in terms of the incumbent's win probability and thereby utilize approval ratings as an independent variable when testing the model's comparative statics in the empirical section. I finish by addressing two extensions to the model.

2.1 Preliminaries

Setup There are two time periods. At $t = 1$, an incumbent politician R (she) holds office. R chooses a policy agenda $\pi \in [0, 1]$, which may pass or fail. Higher π represents a more partisan agenda that favors R's party. The probability of passage is increasing in R's ability $a_R \in \{0, 1\}$, which is unknown to all agents.[6] Higher ability politicians are more effectively able to pass and/or implement legislation.

A representative voter V (he) observes R's choice of agenda, whether it passes or fails, and updates his beliefs about R's ability. Then, at $t = 2$, V chooses to retain R or replace her with a challenger L of unknown ability $a_L \in \{0, 1\}$. q_i^t is the belief politician i is high ability ($a_i = 1$) at time t, which we refer to as i's "reputation." V's utility is the ability a_i of politician i in office. Politicians are office-motivated, receiving a payoff of 1 upon reelection and 0 otherwise.

Policies The success of R's policy agenda is a function of its partisanship $\pi \in [0, 1]$; R's ability a_R; and the legislature's alignment with R, $\lambda \in [0, 1]$, which represents the relative strength of R's party in the legislature. The probability of passage is:

$$\lambda a_R + (1 - \lambda)(1 - \pi).$$

Legislative alignment λ dictates the relative control of the incumbent over the legislature and, relatedly, how much blame can be placed on the incumbent for a success or failure. When $\lambda = 1$, the legislature is totally aligned with the incumbent. Success or failure are entirely driven by R's ability. When $\lambda < 1$, the legislature involves itself in the passage of policies so that passage is a weighted combination of R's ability and her agenda's partisanship. Pursuing the least partisan agenda $\pi = 0$ always leads to success when $a_R = 1$ and may still

[6] The model's equilibrium is robust to an incumbent privately knowing her type.

succeed when $a_R = 0$. Pursuing the most partisan agenda $\pi = 1$ succeeds only if $a_R = 1$, and even then may still fail. For $\lambda = 0$, only partisanship affects whether an agenda passes.

The choice of $\pi \in [0, 1]$ then amounts to the choice of an *information structure*. That is, the agenda maps a state (the incumbent's underlying ability) to a distribution of signals (success or failure of that agenda). The voter infers the incumbent's type from these signals and uses this to update his beliefs over how competent the incumbent is.

Comments Because incumbents are office-motivated, the model should be thought of as isolating variation in partisanship due to reelection incentives. Adding flow utility over partisan policies (e.g. due to an incumbent's preferences or external constraints) would add a unidirectional preference for more partisan policies on top of that of the model. Because such forces would also operate if an incumbent were term-limited, the predictions of the model should emerge when comparing reelection eligible incumbents to lame ducks.[7] This comparison controls not only for executives' preferences but also contemporaneous shocks that affect the partisanship of both reelectable and lame duck executives equally, and will serve as a cornerstone of the empirical tests of the model.

The model interprets ability as a politician's managerial skill, which may include efficacy in crafting and implementing laws, managing bills and the budget, and maintaining a smooth-running bureaucracy. Governors themselves often use the analogy of a "CEO" to describe the duties and skills ascribed to their job (Behn, 1991). Ability can also represent a capacity to commit to following through on a policy agenda; or the incumbent's valence, which is higher if she is perceived to be better at passing legislation. The data section provides examples of these skills from the National Governors Association, noting that the success or failure of a policy agenda is one of the most crucial inputs into voters' perceptions of governors.

I assume that the representative voter V prefers a high ability incumbent to a challenger of unknown ability to a low ability incumbent. This assumption may capture two sorts of phenomena. First, V may be a member of R's party and, all else equal, prefers that the executive of her party is high ability rather than low ability. The second interpretation is that V is a median voter who may have positive or negative ideological preferences over R's partisan policies but, regardless of these preferences, values R's managerial ability to address nonpartisan tasks of governing. As long as V values this managerial ability sufficiently than these ideological preferences, which is highly plausible in a setting like that of U.S. governors, the findings of the model should hold. I provide a microfoundation for this phenomenon in

[7]Relatedly, because partisan policies are identified by their informational feature that they are hard to pass, an incumbent facing an aligned legislature may counterintuitively attempt to pass policies from the opposing party to signal her skill. I show in an extension at the end of the section that allowing for this accentuates the model's result.

Appendix A.2. [8]

I assume that all else equal, bipartisan policies are more likely to pass than partisan policies. In many polarized electoral environments, passing even bipartisan legislation may be seen as a success. What matters for the analysis is that even if passing bipartisan policies is a strong signal of political skill, passing even more partisan policies is an even stronger signal of political skill. To this end, bipartisan policies should be thought of as *ideologically* bipartisan (or even nonpartisan) policies, as opposed to bills requiring bipartisan *support* to pass. For U.S. governors, bipartisan or nonpartisan policies may include such topics as infrastructure investing or education spending. [9]

Notice that in the model, independently of the incumbent's policy choice, some information is bound to be revealed about her type with positive probability. This feature is motivated by the fact that, in high-stakes political settings, incumbents oversee programs run by the executive branch, basic functioning of government, and passage of "business as usual" legislation.

The model defines partisanship as *relative* to a legislature's composition. Suppose λ increases to λ'. A bipartisan policy for the λ' legislature will likely be more partisan than a bipartisan policy for the λ legislature. π, to this end, identifies partisanship relative to a base level for the legislature.

Voters in the model can learn about an incumbent but not the challenger, meaning the expected ability of a challenger is effectively an outside option for voters. I take the expected ability of the challenger to generally describe how electorally competitive the incumbent's jurisdiction is. Voters learn about the incumbent's ability precisely because she is in office, and her ability can be assessed through performance of regular duties.

[8] In particular, I assume there are two dimensions of policy that are functions of ability: managerial and ideological. Voter utility in the managerial dimension is always increasing in ability. Voter utility in the ideological dimension is given by an absolute loss function in π with a weight δ. I assume that the representative voter's preferences align with the legislature, writing her bliss point as λ; and assume that this loss is experienced only if the incumbent's agenda π is passed. I show that as long $\delta \leq 4$, the insights of the model hold.

[9] Curry and Lee (2020) provide a comprehensive picture of the landscape of (bi)partisan bill passage in the U.S. Congress. One Congressional staffer notes that "[a] bill still has a lot greater chance to make it into law if it's bipartisan" (p. 44), while another states that "[g]etting anything done is hard, but it's even harder on a partisan basis" (p. 45). Another staffer points out that while some bipartisan legislation may be passed with easy support from both parties, more ambitious legislation is only able to pass with negotiation between party leaders and veto-holders, suggesting a certain level of persuasion skill or political acumen — such as that at the level of a political executive — to secure passage of more partisan initiatives. The authors additionally point out that, despite increasing party polarization, the sorts of bipartisan support and tactics required to secure legislation is empirically no different than the 1970s and 1980s.

2.2 Equilibrium

The voter elects whichever politician has higher expected ability. R wins reelection if and only if $q_R^2 \geq q_L^2$. Hence, the equilibrium utility of R as a function of q_R^2 is $u_R(q_R^2) \equiv \mathbf{1}[q_R^2 \geq q_L^2]$.

Information Given a prior q_R^1, the partisanship of each policy agenda generates posteriors q_R^2 about R's ability, given by $F(q_R^2|q_R^1, \pi)$. In the setting with success/failure, we end up with either a posterior higher than q_R^1 (denoted $\overline{q}_R^2$) or lower than q_R^1 (denoted $\underline{q}_R^2$). The incumbent's general problem is then given by:

$$V_R(q_R^1) = \max_{\pi \in [0,1]} \int_{q_R^2} u_R(q_R^2) dF(q_R^2|q_R^1, \pi). \tag{1}$$

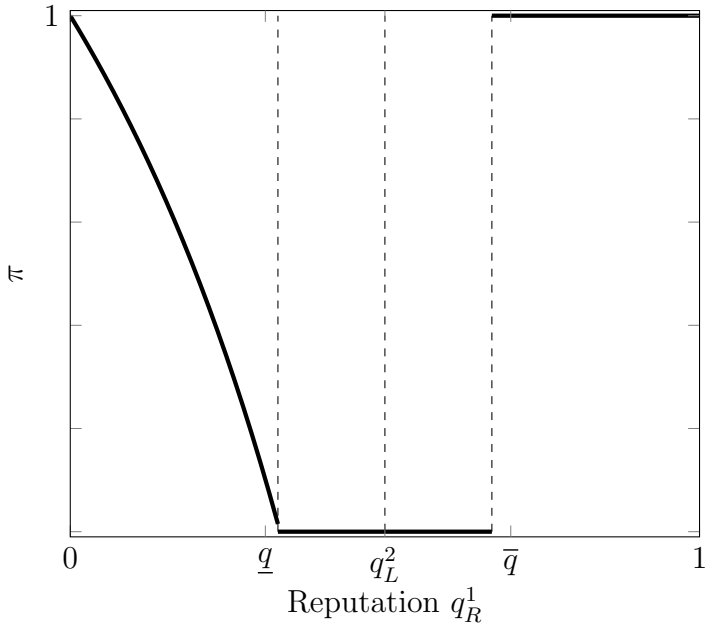
Let $\pi^*(q_R^1)$ represent the solution of the program above. The following proposition describes π^*.

Proposition 1. *There exist thresholds* $0 < \underline{q} < q_L^2 < \overline{q} < 1$ *such that:*

- *for* $q_R^1 \in [0, \underline{q})$, $\pi^*(q_R^1)$ *is strictly decreasing, with* $\pi^*(0) = 1$ *and* $\pi^*(\underline{q}) = 0$*;*
- *for* $q_R^1 \in [\underline{q}, \overline{q})$, $\pi^*(q_R^1) = 0$*;*
- *for* $q_R^1 \in [\overline{q}, 1]$, $1 \in \pi^*(q_R^1)$ *with equality at* $\overline{q}$*.*

The solution is graphed below:

Figure 1: Partisanship of Optimal Policy π^*



All proofs are contained in Appendix A. The intuition for this result is best viewed through comparing the payoffs from $\pi = 0$ and $\pi = 1$. When $\pi = 0$, observing a success generates the posterior over ability $\overline{q}_R^2 = \frac{q_R^1}{q_R^1+(1-\lambda)(1-q_R^1)}$. Observing a failure generates the posterior $\underline{q}_R^2 = 0$, since failure to pass bipartisan policies is damning evidence that $a_R = 0$.

When $\pi = 1$, observing a success is confirmatory evidence that $a_R = 1$, so $\overline{q}_R^2 = 1$. Because high ability incumbents may fail to pass partisan policies, the posterior upon observing failure is $\underline{q}_R^2 = \frac{(1-\lambda)q_R^1}{1-\lambda q_R^1}$. Hence, the expected winning probabilities from pursuing each policy are:

$$\pi = 1: \qquad (q_R^1 + (1-\lambda)(1-q_R^1))\mathbf{1}\left[\frac{q_R^1}{q_R^1+(1-\lambda)(1-q_R^1)} \geq q_L^2\right],$$
$$\pi = 0: \qquad \lambda q_R^1 + (1-\lambda q_R^1)\mathbf{1}\left[\frac{(1-\lambda)q_R^1}{1-\lambda q_R^1} \geq q_L^2\right].$$

Consider the following cases:

- Suppose q_R^1 is so low that $\frac{q_R^1}{q_R^1+(1-\lambda)(1-q_R^1)} < q_L^2$. Then R never wins if she pursues $\pi = 0$. By contrast, if she pursues $\pi = 1$, she wins with positive probability, since successes are confirmatory news of high ability. Hence, $\pi = 1$ dominates $\pi = 0$.

- Suppose q_R^1 is larger so that $\frac{q_R^1}{q_R^1+(1-\lambda)(1-q_R^1)} \geq q_L^2$ but such that $\frac{(1-\lambda)q_R^1}{1-\lambda q_R^2} < q_L^2$. The expected win probability from pursuing $\pi = 0$ is $q_R^1 + (1-\lambda)(1-q_R^1)$, whereas the expected win probability from pursuing $\pi = 1$ is only λq_R^1. Hence $\pi = 0$ dominates $\pi = 1$.

- Finally, suppose q_R^1 is high, so that $\frac{(1-\lambda)q_R^1}{1-\lambda q_R^1} \geq q_L^2$. Pursuing $\pi = 1$ then leads to a win with probability 1, which dominates $\pi = 0$.

Note that for $q_R^1 \geq \overline{q}$, π^* may contain other values besides $\pi = 1$ because win probability is flat above q_L^2. Any indifference can be broken in favor of $\pi = 1$ by assuming that, all else equal, R prefers more partisan policies in her direction.

The proof of the baseline result yields the following comparative statics.

Corollary 1. *$\overline{q}$ and $\underline{q}$ vary as follows with λ:*

- *$\underline{q}$ is decreasing in λ; as $\lambda \to 0$, $\underline{q} \to 0$; as $\lambda \to 1$, $\underline{q} \to q_L^2$.*

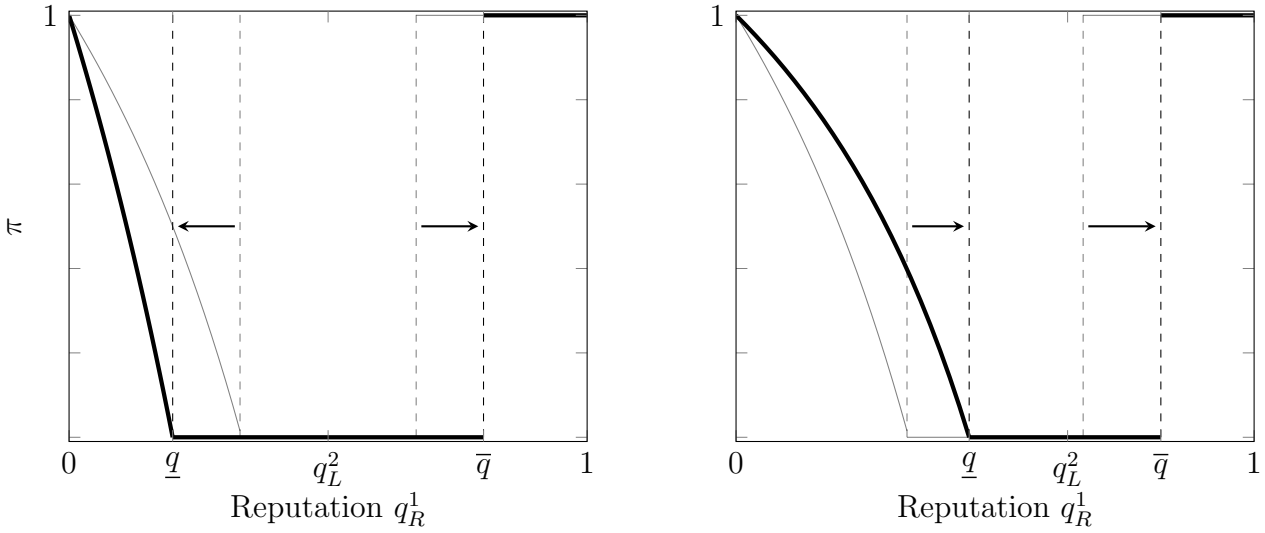
- *$\overline{q}$ is increasing in λ; as $\lambda \to 1$, $\underline{q} \to 1$; as $\lambda \to 0$, $\overline{q} \to q_L^2$.*

$\overline{q}$ and $\underline{q}$ are both increasing in q_L^2. As $q_L^2 \to 0$, both terms $\to 0$. As $q_L^2 \to 1$, both terms $\to 1$.

Recall that $1-\lambda$ also measures R's capacity to blame outcomes on the legislature. As λ increases, this obfuscatory power decreases, meaning in particular that the failure of partisan

policies is a more negative signal of ability. Bipartisan policies $\pi = 0$ are the "safest" in the sense that they have a high probability of success; and so, incumbents lean more on bipartisan policies for their relative safety. As q_L^2 increases, the electoral environment becomes more competitive, i.e. R needs to achieve a higher threshold to win reelection. This ultimately causes a "right shift" in the incentives of the model, as R requires more partisan policies at the low end of q_R^1 to signal sufficiently high ability. Flipping the result suggests that in *less* competitive environments — e.g. those where an incumbent's party always tends to win reelection — we should observe a "left shift" in the baseline predictions.

Figure 2: Variation of Optimal Policy π^* with λ, q_L^2



(a) Increase in Leg. Alignment λ

(b) Increase in Competitition q_L^2

2.3 Welfare

I show that voter welfare — measured as the additional value of learning or flow utility — may be nonmonotonic with respect to reputation; and that changes in legislative alignment and competition may have ambiguous effects on welfare.

2.3.1 Learning

The first benchmark for welfare will be voter learning. The voter's value function at the beginning of $t = 2$, as a function of his beliefs, is $\max\{q_2^R, q_2^L\}$. With some abuse of notation, the value of learning for the voter given $\pi^*(q_R^1)$ can be written as:

$$V_V(\pi^*) = \int_{q_R^2} \max\{q_2^R, q_2^L\} dF(q_R^2 | q_R^1, p_1^*, p_0^*),$$

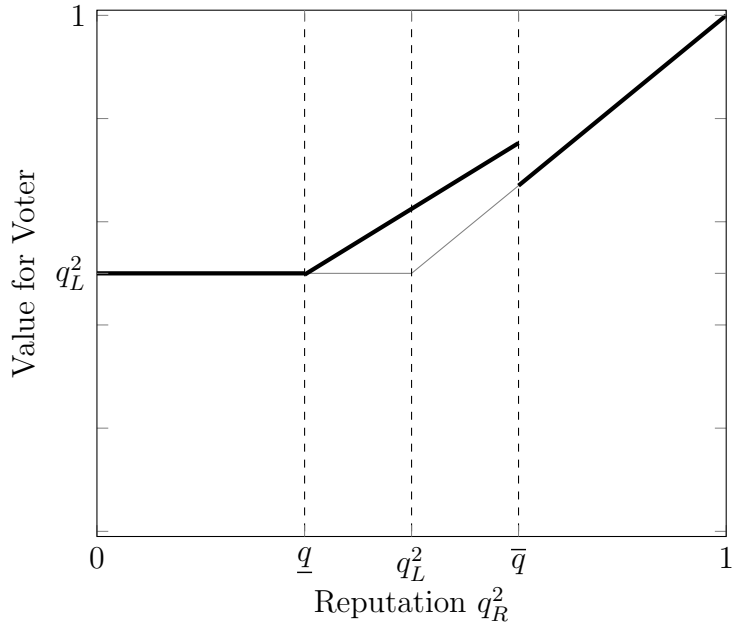
which can be summarized as follows.

Proposition 2. *The equilibrium value of learning for the voter, $V_V(\pi^*)$, is as follows.*

- *For $q_R^1 \in [0, \underline{q}]$, $V_V(\pi^*) = q_L^2$;*
- *for $q_R^1 \in [\underline{q}, \overline{q})$, $V_V(\pi^*) = q_R^1 + \lambda(1 - q_R^1)q_L^2$;*
- *for $q_R^1 \in [\overline{q}, 1]$, $V_R(\pi^*) = q_R^1$.*

The value of learning is graphed below. The thick lines indicate the value of the solution, while the light gray lines represent the baseline value of the problem for the voter.

Figure 3: Learning Value of π^* for Voter



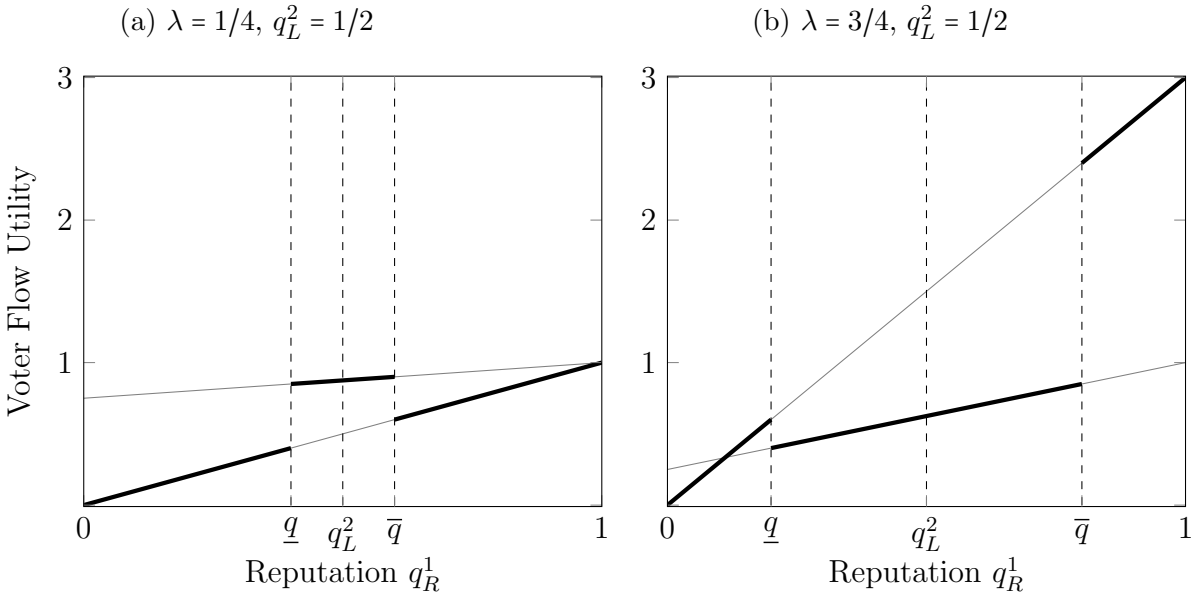
The only region where R generates a strictly positive effect on learning is on $[\overline{q}, \underline{q})$. The intuition is that when R succeeds in passing a bipartisan agenda here, q_R^2 strictly increases. If R fails, q_R^2 goes to 0, but this allows V to replace R with L. In the other two regions, V's *strict* preference for retaining or replacing R does not change after the realization of information. Increasing λ always widens this range; hence, increasing λ always improves agents' relative learning. However, changing q_L^2 results in shifts to this region; I show in the appendix that there is an intermediate value of competition q_L^2 at which the size of the interval over which R adds any value to voter learning is maximal.

2.3.2 Flow Utility

So far, the model is silent about the concurrent effects of pursuing different policy agendas on the representative voter's welfare.[10] Partisan policies, when manifest as policy reforms, are often assumed to be valuable when implemented by a skilled incumbent but worse than a (bipartisan) status quo when pursued by an unskilled incumbent.

To illustrate the nonmonotonic variation of welfare with reputation and legislative alignment, I allow two policies, $\pi \in 0, 1$, as in the proof intuition for Proposition 1. I assume voter utility from $\pi = 0$ is always equal to 1 upon passage. I assume utility from $\pi = 1$ is equal to 0 if passed by a low ability incumbent and 4 if passed by a high ability incumbent. Utility from non-passage is always 0. The two panels of the figure below illustrate the tradeoffs of increasing or decreasing λ when $q_L^2 = 1/2$. The left panel shows the result under low legislative alignment ($\lambda = 1/4$) and the latter under high alignment ($\lambda = 3/4$).

Figure 4: Variation of Optimal Policy π^* with λ



The pursuit of partisan policies results in less than ideal flow utility at low values of reputation, since incumbents' abilities are low in expectation. At high values of partisanship, pursuing partisan policies is optimal in expectation when legislative alignment is high but suboptimal when legislative alignment is low. At middling values of reputation, pursuit of bipartisan policies is optimal at low values of legislative alignment but suboptimal at high values of alignment, since the incumbent has tighter control over the legislature and could use this control to pass more ambitious policies.

[10] While more partisan policies may please members of R's party, they may displease members of L's party. I hence take these results as an upper bound on the potential welfare gains of different policy agendas.

2.4 Persuasion Model and Data Predictions

While the benchmark is useful for conveying the core intuitions of the theory, the information structures it captures are quite stark. The model does not directly capture, for example, that high ability incumbents may be marginally better at passing partisan policies. Additionally, the incumbent in the model, immediately prior to an election, always wins with probability 0 or 1. This latter point is particularly limiting given my empirical application, where proxies for winning probability (such as approval ratings) are readily available, while proxies for reputation are hard to uncover.

To improve mathematical tractability and address these points, I now describe an extended model utilizing a constrained persuasion structure. This approach gives the incumbent flexibility in directly choosing success probabilities for high and low ability incumbents. The extended model not only shows that the insights of the benchmark are more robust to a general setting, but also allows me to solve the model with a valence shock and thereby write the theoretical predictions in terms of an incumbent's ex-ante winning probability. Additionally, it allows me to easily address two extensions — described in the next section — for a multi-period version of the model as well as an extension regarding politician flow utility.

Persuasion Model I now characterize R's choice of policy agenda as a signal structure (p_1, p_0) for $p_1 \geq p_0$. These respectively represent the conditional probabilities an $a_R = 1$ and 0 incumbent would be able to earnestly pass an agenda if she were totally unaligned with the legislature. Total passage probabilities are:

$$\begin{aligned} a_r = 1: &\qquad \lambda + (1-\lambda)p_1, \\ a_r = 0: &\qquad (1-\lambda)p_0. \end{aligned}$$

The partisanship π of an agenda (p_1, p_0) is defined as $\pi(p_1, p_0) = 1 - \frac{p_1+p_0}{2}$.

This model is a form of a constrained persuasion problem. When $\lambda = 0$, the problem boils down to a standard Bayesian persuasion problem with two states (high/low ability) and two signals (success/failure). (p_1, p_0) represent the conditional probabilities of observing a success conditional on each state. For $\lambda > 0$, R chooses a signal structure (p_1, p_0), but the voter V only receives a signal from this structure with probability $1-\lambda$. With probability λ, he receives a signal from a structure $T = (1, 0)$ (success $\iff a_R = 1$), and cannot differentiate whether the signal they received came from P or T. In this sense, the set of posteriors over ability the policy agenda can induce is constrained.

Proving an analogue of Proposition 1 for this case is nearly identical. I hence use the

flexibility of this more general model to prove the baseline result with a valence shock. Let $\epsilon \sim N$ be a single-peaked preference shock favoring L, which has support on $\mathbb{R}$, has mean 0, is symmetric around 0, is twice continuously differentiable, and is strictly increasing (decreasing) above (below) 0. V retains L if and only if $q_R^2 \geq q_L^2 + \epsilon$, meaning she wins the election with ex-ante probability $N(q_R^2 - q_L^2)$. Her expected value from an agenda (p_1, p_0) is then

$$\max_{p_1 \geq p_0} \int_{q_R^2} N(q_R^2 - q_L^2) dF(q_R^2 | q_R^1, p_1, p_0).$$

where $F(q_R^2 | q_R^1, p_1, p_0)$ now represents the distribution of posteriors given (p_1, p_0). Let $p^*(q_R^1) = (p_1^*, p_0^*)$ represent the agenda that solves the equation above and π^* the partisanship of this agenda. The generalization of the first proposition is as follows.

Theorem 1. *There exist thresholds $\underline{q} < \overline{q}$ such that:*

- *for $q_R^1 \leq \underline{q}$, $\pi^*(q_R^1)$ is strictly decreasing. $p^*(0) = (1, 0)$ and $\pi^*(0) = 1/2$, while $\pi^*(\underline{q}) = 0$ and $\pi^*(\underline{q}) = 0$.*
- *For $q_R^1 \in [\underline{q}, \overline{q})$, $p^* = (1, 1)$ and $\pi^* = 0$;*
- *for $q_R^1 \geq \overline{q}$, $p^* = (0, 0)$ and $\pi^* = 1$.*

Note in particular that $p^* = (1, 1)$ corresponds to the $\pi = 0$ policy in the initial model. The $p^* = (0, 0)$ policy corresponds to the $\pi = 1$ policy in the initial model.

As a (constrained) persuasion problem, I utilize insights from the Bayesian Persuasion literature to address parts of the proof. The optimal solution in an unconstrained persuasion problem is given by the concavification of the sender's value function (in this case, the incumbent's value function). If a policy agenda induces posteriors that achieve the concavification of $N(q_R^2 - q_L^2)$, that agenda is optimal. I show that for $q_R^1 < \underline{q}$, we can indeed use (p_1, p_0) to achieve that concavification, which is a lottery between some posterior $\overline{q}_R^2 = \tilde{q} > q_L^2$ and $\underline{q}_R^2 = 0$.[11] However, because the persuasion problem is *constrained*, the concavification is no longer achievable after some $\underline{q}$, where an incumbent would ideally implement a less informative or uninformative policy agenda, but cannot due to the constraints of the problem. At $\underline{q}$, the solution itself is given by $(p_1, p_0) = (1, 1)$. After $\underline{q}$, the incumbent pursues a boundary solution. I show that the solution is either given by $(p_1, p_0) = (1, 1)$ or $(p_1, p_0) = (0, 0)$, just as in the baseline model. In particular, I show that if V is an everywhere concave function, then $(p_1, p_0) = (0, 0)$ is the optimal solution. Because when q_R^2 is sufficiently high, $N(q_R^2 - q_L^2)$ is

[11] A picture of the value function and its concavification is displayed in the appendix.

locally concave (and equal to its concavification), $(p_1, p_0) = (0, 0)$ is the optimal solution for sufficiently high q_R^2. Otherwise, between $\underline{q}$ and $\overline{q}$, R continues to implement $(p_1, p_0) = (1, 1)$.

The persuasion extension suggests a potential *asymmetry* in nonmonotonicity relative to the baseline model. When $q_R^1 = 0$, $\pi = 1/2$, while when q_R^1 is high, $\pi = 1$. The baseline comparative statics also emerge from the proof of the result. Increasing λ causes $\underline{q}$ to decrease and $\overline{q}$ to increase. Increasing q_L^2 causes $\underline{q}$ and $\overline{q}$ to shift to the right.

Data Mapping The expression $N(q_R^2 - q_L^2)$ can be inverted to write the predictions of Theorem 1, as well as the comparative statics, in terms of win probabilities. Let P represent the incumbent's ex-ante probability of reelection.

Corollary 2. *There exist thresholds $\underline{P} < \overline{P}$ such that:*

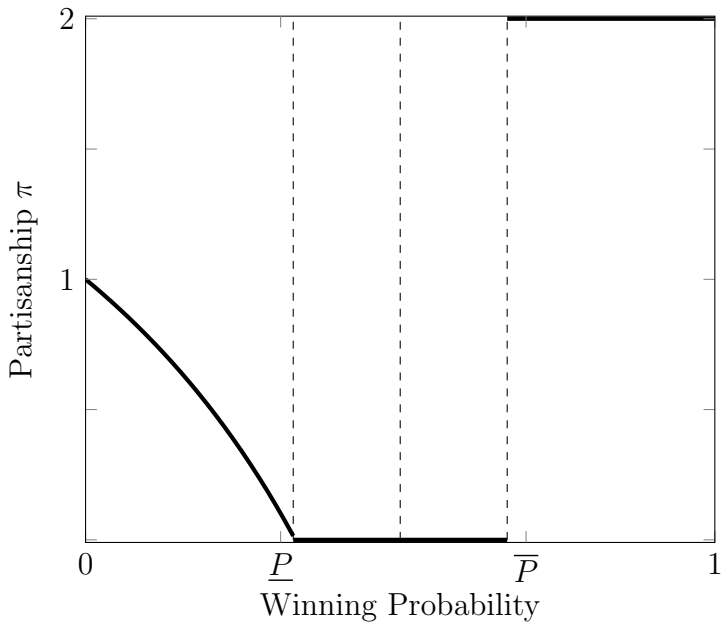
- *when $P \leq \underline{P}$, partisanship π^* is strictly decreasing in P until $\pi^* = 0$ at $\underline{P}$;*
- *when $P \in (\underline{P}, \overline{P})$, partisanship $\pi^* = 0$;*
- *when $P \geq \overline{P}$, partisanship $\pi^* = 1$.*

Moreover,

- *When legislative alignment λ increases, $\underline{P}$ decreases and $\overline{P}$ increases.*
- *When competition q_L^2 increases, $\underline{P}$ and $\overline{P}$ both increase.*

This corollary summarizes the key predictions I will take to test the partisanship of gubernatorial policy agendas in the model. The basic graph of this pattern is shown below.

Figure 5: Partisanship of Optimal Policy $\mathbf{P}^*$



The data predictions are as follows:

- **P1**: There is a nonmonotonic relationship between the partisanship of a reelectable incumbent's policy agenda and her probability of reelection, when compared to a reelection-ineligible incumbent. These incumbents should pursue partisan agendas when their probability of reelection is low or high, and relatively bipartisan agendas when their probability of reelection is moderate.

- **P2**: When increasing legislative alignment, the nonmonotonicity of **P1** should flatten out. However, the minimum level of partisanship of **P1** at moderate levels of win probability should also increase.

- **P3**: At high levels of party entrenchment, the nonmonotonicity of **P1** should flatten out; the nonmonotonicity should be strongest in states that lack party entrenchment.

P1 emerges because the model isolates informational incentives for partisan policies that drive reelection, meaning its predictions apply when comparing reelection eligible to ineligible executives. **P2** utilizes the fact that the definition of a bipartisan policy is relative to the legislature's composition, measured using λ. This means that raising λ may also raise the base level of partisanship in the data. **P3** emerges because increasing competition q_L^2 can be thought of as increasing party entrenchment.

Finally, although direct measures of winning probability are hard to track historically for executives — particularly in non-election years — approval data are readily available.

These data are often used by politicians themselves to assess their popularity and chances at reelection; as such, I utilize approval data to proxy for ex-ante win probability in the data section.

2.5 Extensions

I utilize the persuasion model without a valence shock to address two extensions to the model.

Politician Utility and L Policies First, I show that the model is robust to allowing R to choose policies from the opposing party. In particular, a more partisan policy's informational utility is that it is "hard to pass." However, if R is incredibly aligned with her legislature, then passing policies favored by the opposing parties may in fact be harder to pass. Paradoxically, R may then attempt to go against her party's preferences and pursue an agenda of the opposition to "prove her worth."

I address this concern by allowing R to choose from a spectrum of partisan policies. She can choose either an R-partisan agenda $p^R \in (p_1^R, p_0^R)$ or an L-partisan agenda $p^L = (p_1^L, p_0^L)$. I endow R with a preference for R policies over L policies. I show that the model's central nonmonotonicity is left untouched. If flow utility concerns are weak, the region in $[\underline{q}, \overline{q}]$ may exhibit additional nonmonotonicities in the direction of L policies.

Suppose that R chooses a policy agenda p^R or p^L. Success probabilities are:

$$\text{Choose } \pi_R : \lambda a_R + (1-\lambda) p^R_{a_R}$$
$$\text{Choose } \pi_L : (1-\lambda) a_R + \lambda p^L_{a_R}$$

Intuitively, if R chooses π^L, she is adopting the policies an L politician would implement, meaning her de facto legislative alignment flips. I assume R receives a disutility $-c$ from pursuing π^L.

Let $F^i(q_R^2 | q_R^1, p_1^i, p_0^i)$ be the distribution of posteriors over R's ability for $i \in \{R, L\}$. Then, R implements an agenda from π^R if and only if

$$\max_{p_1^R \geq p_0^R} \int_{q_R^2} u_R(q_R^2) dF^R(q_R^2 | q_R^1, p_1^R, p_0^R) \geq -c + \max_{p_1^R \geq p_0^R} \int_{q_R^2} u_R(q_R^2) dF^L(q_R^2 | q_R^1, p_1^L, p_0^L).$$

The left expression is the value from the solution to the baseline problem. The right expression is the value from choosing an L policy agenda less the cost $-c$ from choosing policies preferred by the opposing party. We can write the optimal solution of each program as p^{i*}, which is characterized by thresholds $\underline{q}^i, \overline{q}^i$. While c sufficiently large may mechanically shut

down any preference for L policies, I show that even for c small, the model's nonmonotonicity still holds.

Proposition 3. *There exists $\overline{\lambda} > 1/2$ such that for $\lambda \leq \overline{\lambda}$, R implements p^{R*}. For $\lambda \geq \overline{\lambda}$ and c sufficiently low, there exist thresholds $\underline{q}^f, \overline{q}^f$, with $\underline{q}^R < \underline{q}^f < \overline{q}^f < \overline{q}^R$ such that R implements*

- *p^{R*} for $q_R^1 \leq \underline{q}^f$;*
- *p^{L*} or p^{R*} for $q_R^1 \in (\underline{q}^f, \overline{q}^f)$;*
- *p^{L*} for $q_R^1 \geq \overline{q}^f$;*

The intuition is as follows. Below $\underline{q}^R$ and above $\overline{q}^R$, R is able to achieve the concavification of $u_R(\cdot)$ utilizing p^R. The integrand term on the left hand side is maximized, suggesting a strict preference for p^{R*}. Note that R's maximal utility from pursuing p^{R*} is strictly decreasing in λ — since lower λ allows greater informational flexibility — while the maximal utility from pursuing p^{L*} is strictly increasing in λ. The utility from pursuing either policies is always equal at $\lambda = 1/2$, modulo the $-c$ term. This means that p^{R*} is still strictly preferred at $\lambda = 1/2$. Preference for p^{L*} can override if and only if c is sufficiently small; and only then when the value from pursuing π^{L*} is sufficiently higher than that of p^{R*}. This can occur only within a strict subset of $[\underline{q}^R, \overline{q}^R]$.

Extending the space of partisanship downwards — so that L policies are even *less* partisan than $\pi = 0$ (for an R incumbent) — suggests that partisanship weakly decreases from $\pi = 1/2$ to 0 at $\underline{q}^f$; potentially plummets further between $\underline{q}^f$ and $\overline{q}^f$, either with the implementation of a moderate or extremely partisan L policy; and then shoots back up to $\pi = 1$ above $\overline{q}^f$. That is, within $(\underline{q}^f, \overline{q}^f)$, R implements either $\pi^R = 0$ or $\pi^L \geq 0$, potentially adding additional nonmonotonicities to the pattern, but ensuring that partisanship (relative to R's party) is always lower in this middle region than when reputation is low or high.

Multi-Period Dynamics I show that allowing for an additional period of policy passage preserves the fundamental insights of the model. While the baseline model assumes that politicians' policy agendas represent the totality of their term in office, we can consider a three period model where politicians pursue agendas in periods $t = 0$ and $t = 1$ before an election at $t = 2$. In between $t = 0$ and $t = 1$, agents update beliefs over a_R as before.

Following notation from earlier, let the belief that R is high ability at the beginning of $t = 0$ be q_R^0. The twoperiodproof is characterized as follows.

Proposition 4. *Given $\underline{q}, \overline{q}$, there exist thresholds $\underline{\underline{q}} < \underline{q} < \overline{q} < \overline{\overline{q}}$ such that*

- *For $q_R^0 \leq \underline{\underline{q}}$, partisanship π^* is decreasing from $1/2$ at q_R^0 to 0 at $\underline{\underline{q}}$.*

- *There exists* $q_\dagger \in [\underline{\underline{q}}, \overline{q} < \overline{\overline{q}}]$ *such that for all* $q_R^0 \geq q_\dagger$, $\pi^* < 1$.
- *For* $q_R^0 \geq \overline{\overline{q}}$, $\pi^* = 1$.

3 Data

This section begins with information about U.S. gubernatorial State of the State addresses, including their relevance to my setting. I then discuss how the data is sourced and pre-processed before analysis. I finish by detailing how I use large-language modeling to isolate policy proposals from speeches.

3.1 U.S. Governors and State of the State Addresses

Reputational Priorities of U.S. governors The policy agendas of U.S. governors provide an ideal setting to test the predictions of the model. Governors are high-profile political executives who, since the end of the 20th century, have played an outsized role in setting, pursuing, and implementing state policy agendas.[12] Compared to legislators, governors "enjoy organizational, institutional, and popular advantages similar to and arguably even greater than the president [over Congress]" (Heidbreder, 2012). In any given year there are 50 U.S. governors in office, all of whom vary in their popularity, eligibility for reelection, party entrenchment, and alignment with state legislatures.

There is substantial evidence that voters evaluate governors based on their productivity in passing their policy agendas. The National Governors Association (NGA) provides a series of guides to incoming U.S. governors, which provide rich insight into how governors themselves view incentives to pass policies while in office. One excerpt from a guide remarks that "[t]he media and public will judge the governor's leadership ability and success... [by] whether the administration's legislative program succeeds... The governor's ability to manage and secure legislation also affects his or her ability to serve as a strong leader of the party... If the legislation fails, it will be considered a political defeat... [T]he passage of priority legislation usually will signal a political success." (National Governors Association, 2018). An executive director of the NGA has gone as far as to say that "the ultimate measure of success [is] the ability of... governors to get his or her initiatives enacted" (Scheppach, 2005).

The NGA guides also provide insights on the dimensions of skill by which a governor is evaluated, often using the language of a managerial "CEO" to describe these responsibilities. "As chief executive officers (CEOs), governors are responsible for the leadership

[12]The "devolution revolution" of the 1990s marks the period where the federal government heavily devolved authority over many public policies to state governments

and management of their states. As leaders, they set priorities for their administration and enact new policies and programs designed to achieve those priorities" (National Governors Association, 2019). Moreover, an "effective process to craft and implement a legislative program and strategy, as well as to cultivate and maintain working relationships with legislative leaders and members, is critical to ensuring the success of a governor's legislative program." (National Governors Association, 2018)[13]

There is evidence that voters pay attention to and respond to governors' actions, and that this response may be mediated by alignment with legislatures. Wolak and Parinandi (2022) find a positive response of gubernatorial approval to both ideological alignment and substantive measures of performance, such as economic performance and policy outputs. Across economic and policy outcomes, Brown (2010) shows that voters are more likely to blame opposing parties for problems if the opposition holds an executive position and their own party has a hold on the legislature. Leyden and Borrelli (1995) find that voters are much more responsive to changes in state economic outcomes when state government is unified (rather than divided, with different parties holding the executive and legislative branches). Jacobson (2006) shows that governors who are not aligned with their state legislatures enjoy slightly higher approval than those with aligned legislatures, arguably in part due to the fact that misalignment reduces blame. Larimer (2015) studies the limits of gubernatorial party control and argues that "[u]nified control provides the public an easy target to blame when things go bad" (p. 96), going on to note that divided governments may permit flexibility in allowing voters to learn about governors' managerial strengths.

Policy Agendas The model's predictions apply to executives' policy agendas. I utilize the text of each governor's annual "State of the State" address as a baseline corpus of policy agendas; utilizing text data also allows us to use methods from the literature to analyze partisanship of policy proposals.

At the beginning of each legislative session, the governor of each state in the United States is required to address a joint session of the legislature to deliver a "State of the State" (SotS) speech. [14] The speech is delivered annually (in some states biennially) in the first quarter of the year, and is the US States' analogue of the presidential "State of the Union."

[13] Anecdotal evidence supports the idea that executives strengthen their reelection chances by successfully pursuing ambitious policies in the face of partisan adversity. Iowa Governor Terry Branstad, for instance, describes how his ability to massively restructure state government aided in a competitive reelection to his second term. Branstad writes that he managed to secure "90 percent of the reorganization package" despite a "legislature overwhelmingly controlled by the opposition party" (Behn, 1991), going on to describe the techniques of solid management, legislative persuasion, and drive necessary to achieve those goals.

[14] In some states, the speech is called the "State of the Commonwealth"; in others, the governor's budget or inaugural address take the same role.

Since these data are given around the same time every year in (almost) every US state, these data allow an annual panel of policy agendas for each governor, state, and year.

According to a National Governors Association guide on legislative relations, the "inaugural address, State of the State address and budget message are all excellent forums to communicate and build momentum for the executive branch's legislative agenda" (National Governors Association, 2018). A large literature in political science has documented the importance of these speeches as vehicles for the governor reflect on her administration's past accomplishments and lay out her policy priorities for the coming year. Coffey (2005) and Heidbreder (2012) argue that these speeches accurately represent the incumbent's current policy priorities rather than pure policy preferences. Governors themselves also view these addresses as a highly salient, public platform for signaling policy agendas.

There is also evidence that governors are indeed able to pass many of the agenda items laid out in their SotS addresses. Kousser and Phillips (2012) investigate over $1,000$ proposals laid out in a set of State of the States speeches in the mid-2000s, showing that 41% passed in some form similar to what the governor proposed and 18% with compromises. They show that passage is more likely when a governor is aligned with the legislature or holds more political capital, with the notable exception of budgetary items — where these variables exhibit no apparent effect on passage probability. One implication of this finding is that, regardless of partisan affiliation, there are basic duties (such as budget management) that a skilled executive should be able to address. Indeed, an ex-governor of Maryland noted that "the realities of running a state do not allow for ideological rigidity. Governors must ensure that the budget is balanced, that the state can adequately respond to its day-to-day challenges, and must be able to work with lawmakers from both parties and across the ideological spectrum" (Kousser & Phillips, 2012, p. 97).

In stark contrast to the Congressional Record (Gentzkow, Shapiro, & Taddy, 2019; Jensen et al., 2012), comprehensive analysis of partisanship in the State of the State speeches has been relatively scarce. Many articles — e.g. DiLeo (1997), Coffey (2005), Weinberg (2010), Heidbreder (2012), Warner (2023) — have been able to analyze a few years worth of SotS data to document cursory facts about gubernatorial ideology. For example, DiLeo (1997) shows governors in Democratic states are more likely to pursue redistribution. Ferguson (2003) shows that a governor's priorities are disciplined by the composition of her legislature and economic conditions in states. Coffey (2005), Weinberg (2010), and Kousser and Phillips (2012) attempt to measure ideology in these speeches by either manually coding sentences or relying on dictionaries of partisan words. Heidbreder (2012) shows that Democratic governors are more attentive to healthcare and social policies.

One of the key issues with analysis of SotS addresses is the lack of a systematic, central-

ized data source of speeches, with the exception of two potential databases. Lushkov (2019) collects hundreds of SotS addresses back to the 1800s to look at the frequency with which governors discuss education. Butler and Sutherland (2023) have digitized almost all SotS addresses from 1960 onwards, documenting in increase in nationalization of speech. However, this result does not necessarily imply any distinct trend in gubernatorial partisanship. Relatedly, Hopkins et al. (2022) document a divergence in the speech of 1,783 state party platforms from 1918-2017 beginning in the 1990s, but restrict their analysis to the frequencies of certain topics and phrases as opposed to en-masse text analysis of their corpus that delivers a unidimensional measure for partisanship.

3.2 Sourcing and Pre-Processing

I compile a digitized text library of the State of the State speeches from 1990-2020, allowing me to employ methods from the literature on partisanship of speech and large-language-modeling to measure partisanship, study its heterogeneity, and test the model's predictions.

I began with the database of Lushkov (2019), which contained 330 speeches post-1995 due to data loss. Next, I scoured state news sites, educational resources, archived governor websites, and online state libraries to assemble SotS speeches for an initial dataset of $1,144$ usable speeches. I later gained access to data from Butler and Sutherland (2023), allowing me to assemble a final dataset of $1,345$ speeches for 1990-2020. Figure B.1 in the appendix graphs the set of usable speeches for analysis.

Finally, I broke these speeches into snippets of thematically contiguous thoughts using the NLTK (Natural Language Toolkit) Text-Tiling tokenizer. Each snippet was about 7 sentences and can be thought of either as a paragraph or sets of small paragraphs. I end up with $78,702$ snippets for the period $1990 - 2000$.

3.3 Speech Processing with BERT

To separate portions of SotS addresses discussing the governor's policy agenda, I fine-tuned a large-language-model called "BERT" from the huggingface transformers library to identify relevant snippets of text. In particular, I asked it to classify whether a given snippet of text discussed a concrete policy (yes/no) and, if so, whether it was a discussion of a policy proposal or made mention of a past policy (yes/no).

BERT is a pretrained model that learns the structure of provided text examples, allowing it to be "fine-tuned" to classify text (Devlin et al., 2018). The present paper's process utilizes the same methodology as Card et al. (2022), which identifies whether Congressional speeches were a) about immigration; b) if they were about immigration, whether the tone was positive,

negative or neutral. I repurpose much of these authors' github code to my setting.

Hand-Coding I randomly selected around 9500 snippets from the 70,368 snippets of the initial 1,144 speech 1995-2020 dataset to be hand-labelled and provided to BERT as fine tuning data. Two research assistants were given the following instructions to code these snippets.

1. "Policy." Coded as "1" if the snippet discusses the enactment of a state-level policy (either passed by the governor, state government, or referendum) and "0" if it does not. A policy discussion is a reference to a specific act of legislation or law, a concrete proposal to increase or decrease funding to a certain cause, other legal orders proposed by the government to take certain concrete actions, and discussions of details of any of the above.

2. "Proposal/Past." Only applies if "policy" coded as "1." Coded as "1" if the snippet refers to a policy that has just put into place or will be put into place in the future. Coded as "0" otherwise — in particular, if a governor is reflecting on the effects of a policy in the past.

The full coding guide is contained in Appendix C. Of these hand-coded data, we identified 4,144 snippets as discussing policy and, of those, 2,993 as discussing proposals.

Detailing BERT Model I utilized the "BERT-Base-Uncased" model, which contains approximately 110 million parameters which are adjusted through the process of fine-tuning, to analyze the data. I make use of a two-layered model approach. I first train a model to classify whether a snippet is a policy discussion, which takes in as inputs all the snippets in our hand-coded data. The second model is trained to classify whether a snippet is about a policy proposal or some reflection on a past policy. The latter takes as inputs only the hand-coded data corresponding to policies.[15]

Once these models were fine-tuned, I ran the full dataset of snippets through each model. I used the policy classification to identify policies, and then the proposal classification model to identify proposals, allowing me to classify each snippet as desired: snippets about policy proposals, snippets about policy but not proposals, and other snippets. The policy classification model ended with a low cross-entropy loss of 0.0111 nits and the proposal classification

[15]The input (hand-coded) data for each model is divided into seven stages called "epochs." Each epoch takes the training data and partitions it into three groups. The first set, the "train set," is the main dataset used to train the model. The "dev set," comprised of 400 snippets, is used to adjust the model after its initial training. Finally, the "test set," comprised of 300 snippets, is used to calculate the models' accuracy. Before feeding the data into the model, we also tokenize the data using spaCy, which takes each snippet and breaks it into its component words.

0.0058 nits. Of the 78,702 snippets, I identify 35,636 (45%) as corresponding to policy and 26,720 (34%) as corresponding to policy proposals.

3.4 Additional Data Sources

The following additional data sources are used in the analysis:

- Governor names/dates in office: National Governors Association (2024)
- Gubernatorial win margins and seat status: Algara and Amlani (2021)
- Quarterly governor approval ratings: Singer (2023)
- Legislative composition: Klarner (2013) and National Conference of State Legislatures (2024)
- Term limit rules and missing election dates: Ballotpedia (2024a) and Ballotpedia (2024b)
- Additional covariates: Grossmann, Jordan, and McCrain (2021)

4 Documenting Partisanship

The section begins by detailing measurement of aggregate partisanship. I then document aggregate changes in partisanship from 1990-2000 before describing how aggregate trends disguise substantive variation at the level of governors, states, and regions. This variation is interpretable within my model, which is explored in Section 5.

4.1 Calculating Partisanship

With the corpus of governor speeches, partisanship of gubernatorial speech can be measured for both full speeches and just policy proposals using techniques from the literature on political speech. I calculate a measure of partisanship π_{it} for each governor i and year t. I then take a weighted sum of π_{it} to construct the familiar measure of annual aggregate partisanship Π_t used in the literature.

The metric for defining and calculating partisanship is that detailed in Gentzkow, Shapiro, and Taddy (2019). Aggregate partisanship for year t, Π_t, is measured as the expected *informativeness* of a randomly selected phrase in inferring a governor's party. Specifically, suppose we randomly select a governor — selecting from one of Democrats or Republicans with (prior) probability 1/2. Partisanship is measured as the expected posterior of guessing

that governor's party correctly. If partisanship is less than or equal to 1/2, speech is — on average — uninformative of governor party. If Republican and Democratic governors use dissimilar phrases, partisanship is greater than 1/2 since, in expectation, language is informative of party.

I use "bigrams," i.e. two-word phrases, as my measure of phrase. I use the NLTK PorterStemmer to reduce words to their base form. I then use the Gentzkow, Shapiro, and Taddy (2019) "leave-out-estimator," for calculating aggregate partisanship Π_t. For a sample period of interest, let R be a set of Republican governors and D Democratic governors.[16] Let c_{ij} be the count of phrase j used by governor i. Let $C_{ij} = \frac{c_i j}{\sum_{j \in J} c_{ij}}$ be the normalized count of phrase j used by governor i, where J is the set of all phrases used in the time period of interest. Let C_j^P be the normalized count of phrase j used by party P: $C_j^P = \frac{\sum_{i \in P} c_{ij}}{\sum_{i \in P} \sum_{j \in J} c_{ij}}$. Finally, let $T(t)$ be a five-year window around time t: $T(t) = \{t-2, t-1 \ldots, t+2\}$.[17] A subscript t represents the value of the variable at time t, while $t \in T(t)$ represents its value within the five-year window. For a phrase j and speaker i, define ρ_{-ijt} as the ratio of j's use by Republican vs. Democratic governors, modulo governor $i \in R_t \cup D_t$, within the five-year window acting as the reference group:

$$\rho_{-ijt} = \frac{C^{R-\{i\}}_{jt \in T(t)}}{C^{R-\{i\}}_{jt \in T(t)} + C^{D-\{i\}}_{jt \in T(t)}}.$$

Concretely, given a flat prior, ρ_{-ijt} is the posterior probability assigned to a speaker being a Republican governor upon observing phrase j.

Aggregate partisanship in the US States at time t, Π_t, can then be calculated as:

$$\Pi_t = \frac{1}{2}\frac{1}{|R_t|} \sum_{i \in R_t} \sum_j C_{ijt} \cdot \rho_{-ijt} + \frac{1}{2}\frac{1}{|D_t|} \sum_{i \in D_t} \sum_j C_{ijt} \cdot (1 - \rho_{-ijt}). \tag{2}$$

The interpretation of Π_t is precisely as above. With probability 1/2, we randomly select a party (R or D), and from there randomly draw a governor. With probability C_{ijt}, the chosen governor i uses phrase j. Then, conditional on phrase j, the posterior over governor party moves to ρ_{ijt}. Π_t averages this posterior across governors and phrases.

[16] The few independent governors in our sample lean Democrat, so I classify them as Democratic for all intents and purposes.

[17] I make use of a five-year window since each year only has at most 50 speeches. Gentzkow, Shapiro, and Taddy (2019) use Congressional Record Data, where the number of speakers and quantity of text is much larger, and the length of a Congressional session is two years.

I measure the partisanship of the speech of governor i in state s at time t as:

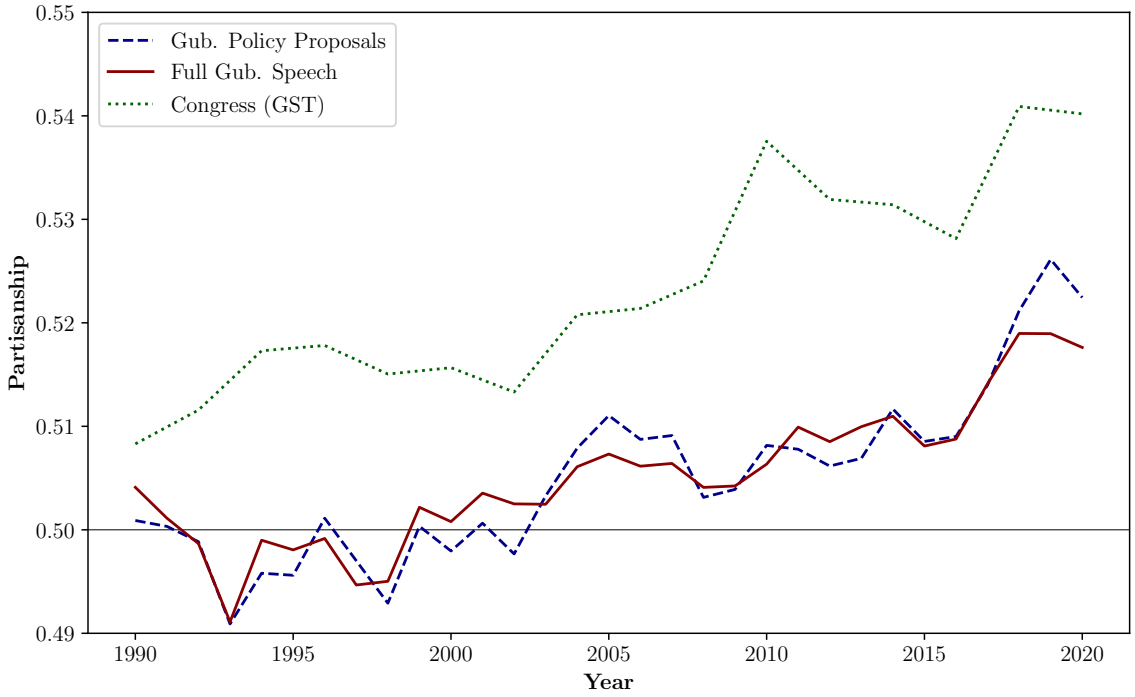
$$\begin{aligned} \pi_{it} &= \sum_j C_{ijt} \cdot \rho_{-ijt} && i \in R_t \\ \pi_{it} &= \sum_j C_{ijt} \cdot (1 - \rho_{-ijt}) && i \in D_t, \end{aligned} \tag{3}$$

which measures how partisan governor i's speech is relative to her party. Governors with $\pi_{it} \geq 1/2$ use language mostly in line with their party, while those with $\pi_{it} \leq 1/2$ use language in line with that of the other party.

4.2 Aggregate Behavior of Partisanship

The figure below shows the evolution of partisanship over the sample period for three series. Partisanship calculated using the entire corpus of speeches is shown in the solid red line, while partisanship calculated using only the policy proposal component of speeches is shown in the dashed blue line. Finally, the dotted green line plots the series of Congressional partisanship from Figure 2A of Gentzkow, Shapiro, and Taddy (2019), which also uses the leave-out estimator. In Appendix Figure B.2, I also compare these measures of partisanship to those estimated from past policy discussions and rhetoric.

Figure 6: Partisanship of U.S. Gubernatorial Speeches, Full Speech vs. Policy Proposals vs. Congressional Record: 1990-2020



Partisanship of gubernatorial speech calculated using Gentzkow, Shapiro, and Taddy (2019) leave-out estimator. "Gub. Policy Proposals" computes estimator for gubernatorial speech snippets coded as discussing policy proposals on corpus of U.S. governors' speech from 1990-2020. "Full Gub. Speech" computes estimator for all gubernatorial speech in given year. "Congress (GST)" series is partisanship of Congressional speech using leave-out estimator, replicating Figure 2A of Gentzkow, Shapiro, and Taddy (2019).

I begin by discussing the measures of state partisanship using both full speeches and the policy proposal data. Partisanship for both series remains low in the early 1990s. The policy proposals data do not experience their first prominent increase until a hump lasting from 2001-2008, with the end of the hump coinciding with the Great Recession. Partisanship dips during the recessionary period before resuming its slow upward creep. Partisanship then spikes in 2017, coinciding with the arrival of governors elected in the 2016 electoral cycle. Both series track each other, a fact borne out in the governor-level panel data.[18] The stages in which we see these increases is likely correlated with the electoral cycle; while Congressional terms are only two years, governors mostly serve four-year terms, and many serve two consecutive terms.

[18]The correlation between the full speech and proposal measures is 0.92 in the panel data.

Recall that partisanship measures the posterior probability that an observer with a flat prior can accurately guess a governor's party after randomly drawing a phrase. When partisanship is less than or equal to 1/2, speech is on average so similar between parties that observing a randomly drawn phrase does not improve inference about the correct governor party. By this metric, partisanship is negligible at the level of state governors until around 2000. At the end of the sample, however, observing just one phrase leads to, in expectation, a two percentage point movement in the prior towards guessing the governor's party.

The measure of gubernatorial partisanship appears to track many features of the Congressional partisanship series from Gentzkow, Shapiro, and Taddy (2019), with a few notable exceptions. First, the Congressional series exhibits a spike from 2008-2010 that is absent from the gubernatorial series. Second, the timing of increases in the gubernatorial series appears to be more gradual, with the magnitude of the change in the 2010s in the Congressional series being double that in the gubernatorial series. Third, the level of gubernatorial speech appears to be lower than that of the Congressional record. In fact, it is not until 2015 that the *level* of gubernatorial partisanship even reaches that of Congressional Partisanship in 1990. This finding also contrasts with that of Hopkins et al. (2022), who find that divergence in speech of state party platforms began in the mid-1990s. Nevertheless, both series experience increases after 2000 that finish with spikes in 2017.

As a validation exercise, Appendix Table B.1. summarizes the most partisan Republican and Democratic phrases utilizing the policy proposal text data. I again utilize a method from Gentzkow, Shapiro, and Taddy (2019), where the partisanship of a phrase is determined as measuring the informational loss in inferring governor's party when removing phrase j from governors' vocabulary. This formula for phrase j is given by

$$1/2 - 1/2 \sum_{j \neq k} \left(\frac{C_k^R}{1 - C_j^R} + \frac{C_k^D}{1 - C_j^D} \right) \frac{C_k^R}{C_k^R + C_k^D}, \tag{4}$$

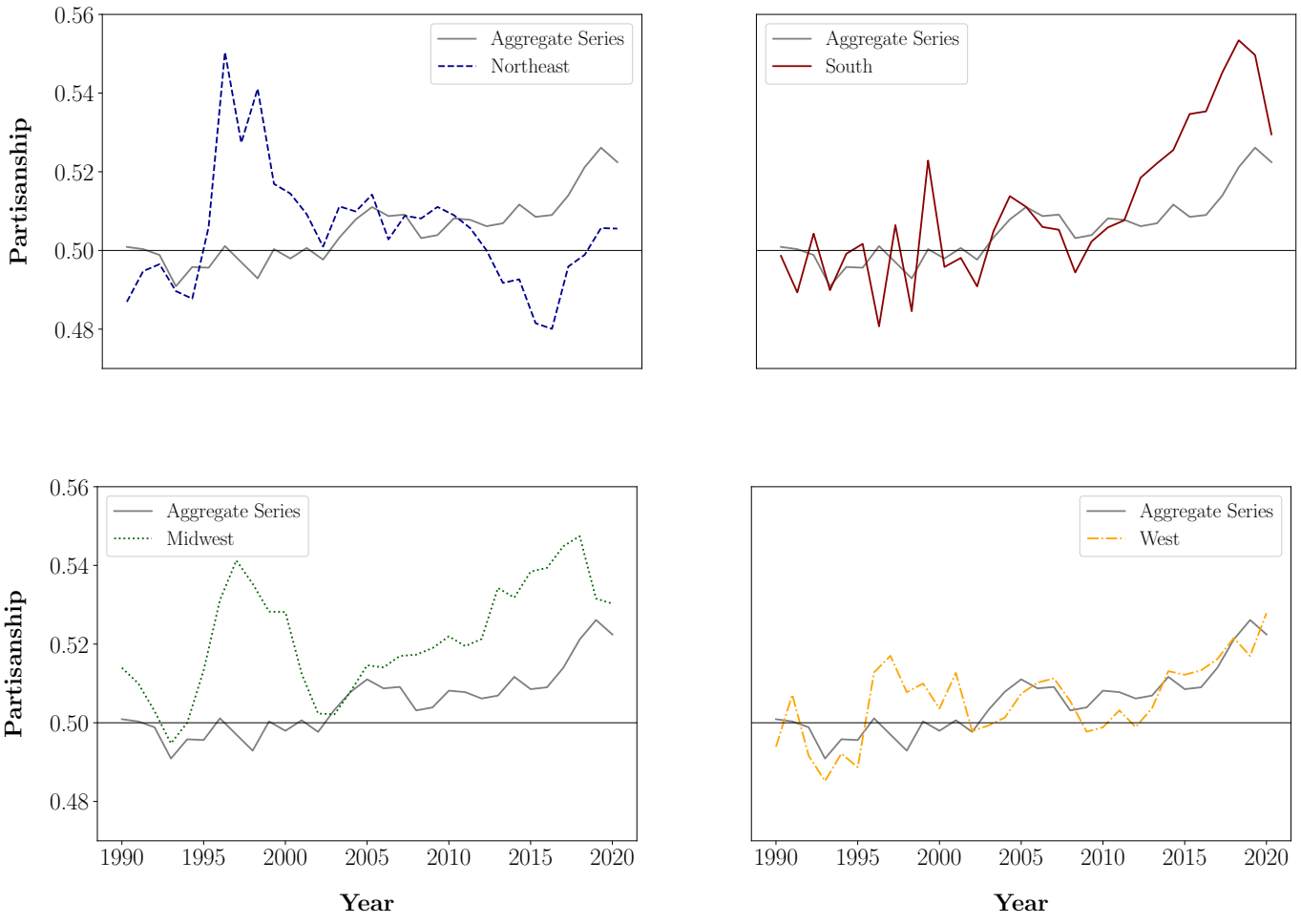
where more positive numbers correspond to more Republican phrases and more negative numbers to more Democratic phrases.[19] I calculate this metric for each bigram in the six epochs of 1990-1994, 1995-1999, 2000-2004, 2005-2010, 2010-2014, and 2015-2020. The table lists the ten "most Republican" and "most Democratic" phrases. Republicans are likely to mention taxes — including phrases like tax reduction, tax relief, and cutting taxes. They also emphasize the budget and, later in the sample, discuss crime. Democrats are more likely to mention topics related to the environment, welfare and childcare, the minimum wage, and affordable housing.

[19]Following the norm established by their paper, I code Republican governors' party as +1 and Democratic governors' as −1.

4.3 Heterogeneity

The aggregate series in Figure 6 mask substantial heterogeneity in partisanship at the state level. Taking the policy proposal data, the figure below shows this heterogeneity by displaying the average of governor-level partisanship π_{it} for each of the four U.S. Census regions.

Figure 7: Partisanship of U.S. Gubernatorial Policy Proposals, by U.S. Region: 1990-2020



Partisanship of gubernatorial speech calculated using Gentzkow, Shapiro, and Taddy (2019) leave-out estimator on U.S. gubernatorial speech snippets coded as discussing policy proposals. Northeastern states are CT, ME, MA, NH, NJ, NY, PA, RI, VT. Midwestern states are IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI. Southern states are AL, AR, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV. Western states are AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY.

The Northeast and Midwest both experience spikes in partisanship at the end of the

1990s, well-surpassing the apex of partisanship achieved at the end of the aggregate series. Partisanship in the Northeastern states then experiences a trough around 2015 and ends at the same level it began in the 1990s The Southern states in panel (b) exhibit significant variation in partisanship before 2005. The average level of partisanship for these states accelerates throughout the 2010s but then dips after 2017. The Western States in panel (d) follow the aggregate trend most closely, but even these states see regular dips and troughs.

This regional heterogeneity is indicative of deeper variations in partisanship at the state and even governor level. Table 1 below summarizes standard deviations in partisanship by each of the three decades for the aggregate sample, within states, and within governors. It also replicates corresponding measures of Congressman-level partisanship from Gentzkow, Shapiro, and Taddy (2019), which is displayed in their Figure 8B.

Table 1: Standard Deviations of Partisanship, Governors vs. Congress, 1990-2020

Standard Deviation	1990-1999	2000-2009	2010-2020
Overall	0.053	0.031	0.041
Within-State	0.041	0.027	0.029
Within Governor	0.028	0.016	0.017
N	375	482	479
Num. Governors	80	92	104
Overall	0.015	0.019	0.028
Within-State	0.014	0.018	0.027
Within-Congressman	0.008	0.012	0.017
N	2,701	2,686	3,261
Num. Congressmen	906	779	10,30

Partisanship of gubernatorial speech calculated using Gentzkow, Shapiro, and Taddy (2019) leave-out estimator on U.S. gubernatorial speech snippets coded as discussing policy proposals. Partisanship of Congressional speech replicated from Gentzkow, Shapiro, and Taddy (2019) using leave-out estimator. 1990-1999 utilizes Congresses 101-105, 2000-2009 Congresses 106-110, 2010-2020 Congresses 111-116.

The top panel of the table shows that variation in partisanship for governors within states is relatively on par with variation in the entire panel. There is also substantive variation in partisanship within governors, around half that in the full sample, suggesting that these effects are not driven by conditions unique to certain governors. [20] Notably, the magnitude of these standard deviations is nearly equal to the average increase in partisanship of about

[20]Differences in partisanship between governors in the same state may be driven not by differences in their styles of governing or policy preferences, but by differences in governors' approval ratings, legislative alignment, or other changes in the governors' environment.

0.02 seen in the governor series in Figure 6.

The bottom panel shows that variation in partisanship within state and Congressman in the Congressional record increases over time, and is systematically lower than that for governors prior to the 2010s. There is no obvious pattern for governors, suggesting that this heterogeneity has consistently been a part of gubernatorial politics. These data suggest that trending partisanship at the aggregate level disguises variations at the state and year level, as well as countervailing dynamic fluctuations — such as in the late 1990s — that are smoothed out in the aggregate series. Because much of this variation occurs within the same states and governors, I turn to test the predictions of the model in explaining fluctuations in partisanship in the next section.

5 Testing the Model

I begin by overviewing the estimation methods and variables I will use to capture the predictions of the model. I then present evidence supporting the model's predictions in aggregate. Afterwards, I disaggregate by competition and state type to further probe these predictions. Finally, I use the model's lens to qualitatively assesspartisanship in the U.S. presidency.

5.1 Estimation

Recall the central predictions of the model.

- **P1**: There is a nonmonotonic relationship between the partisanship of a reelectable incumbent's policy agenda and her probability of reelection, when compared to a reelection-ineligible incumbent. These incumbents should pursue partisan agendas when their probability of reelection is low or high, and relatively bipartisan agendas when their probability of reelection is moderate.

- **P2**: When increasing legislative alignment, the nonmonotonicity of **P1** should flatten out. However, the minimum level of partisanship of **P1** at moderate levels of win probability should also increase.

- **P3**: At high levels of party entrenchment, the nonmonotonicity of **P1** should flatten out; the nonmonotonicity should be strongest in states that lack party entrenchment.

To test these predictions, I use the following variables for governor i in state s at time t.

- Partisanship, π_{ist}. I obtain this measure using the partisanship formula in equation (3) and normalize it by the sample mean and standard deviation.[21]

[21] The sample mean is 0.511 and the standard deviation 0.042.

- Win probability, q_{ist}. I utilize quarterly gubernatorial approval data compiled by Singer (2023).[22] Since State of the State addresses are given in Q1 of each year, I use approval data from Q4 of the previous year. For governors' inaugural years, I use the approval data from Q1.[23]

- Legislative alignment, λ_{ist}. I combine the data on legislative composition from Klarner (2013) and National Conference of State Legislatures (2024). I choose a binary representation of λ_{ist}. The variable is equal to 1 if more than 50% are members of the governor's party and 0 otherwise.

- r_{ist}, reelection eligibility. This is equal to 1 if a governor is eligible to run another term and 0 otherwise.[24]

To pinpoint the model's nonmonotonicity, I break approval ratings q_{ist} into deciles by state.[25] Let q_{kist} correspond to the k^{th} decile of approval for a governor in state s. Finally, let ξ_s be a state fixed effect and χ_t a year fixed effect. I estimate the following regression equation.

$$\begin{aligned}\pi_{ist} =&\alpha_0 + \sum_{k\neq 4}^{10} \alpha_k q_{kist} + \gamma_0 \cdot \lambda_{ist} + \sum_{k\neq 4}^{10} \gamma_k q_{kist} \cdot \lambda_{ist} \\ &+ r_{ist} \cdot \Big(\beta_0 + \sum_{k\neq 4}^{10} \beta_k q_{kist} + \delta_0 \cdot \lambda_{ist} + \sum_{k\neq 4}^{10} \delta_k q_{kist} \cdot \lambda_{ist}\Big) + \xi_s + \chi_t + \epsilon_{ist} \end{aligned} \tag{5}$$

The baseline expression in the first line summarize describes how the level of partisanship varies with approval decile interacted with legislative alignment. The estimands of interest are the β_k and δ_k coefficients, which capture the difference in partisanship for reelection eligible governors relative to lame ducks ineligible for reelection. β_k represents partisanship for the k^{th} decile of approval, relative to the fourth decile, for a reelection eligible governor with an unaligned legislature, adjusting for lame ducks' behavior.[26] $\beta_k + \delta_k$ represents the level of partisanship for the k^{th} decile of approval, relative to the fourth decile, for a reelection

[22] I assume win probability is a strictly increasing function of gubernatorial approval within each state.

[23] For the sample period, these data are missing approval data from Idaho. There are also substantial gaps for Hawaii, Louisiana, and North Dakota.

[24] I count those governors who are eligible for reelection but *choose* not to run again as still being reelection eligible, as choosing not to run again is an endogenous choice. The central results are robust to counting only governors who actually run for their seats as reelection eligible.

[25] This accounts for persistent differences in the means of state gubernatorial approval. This also ensures state-level balance in the approval data, allowing the regression to capture departures from average approval within each state.

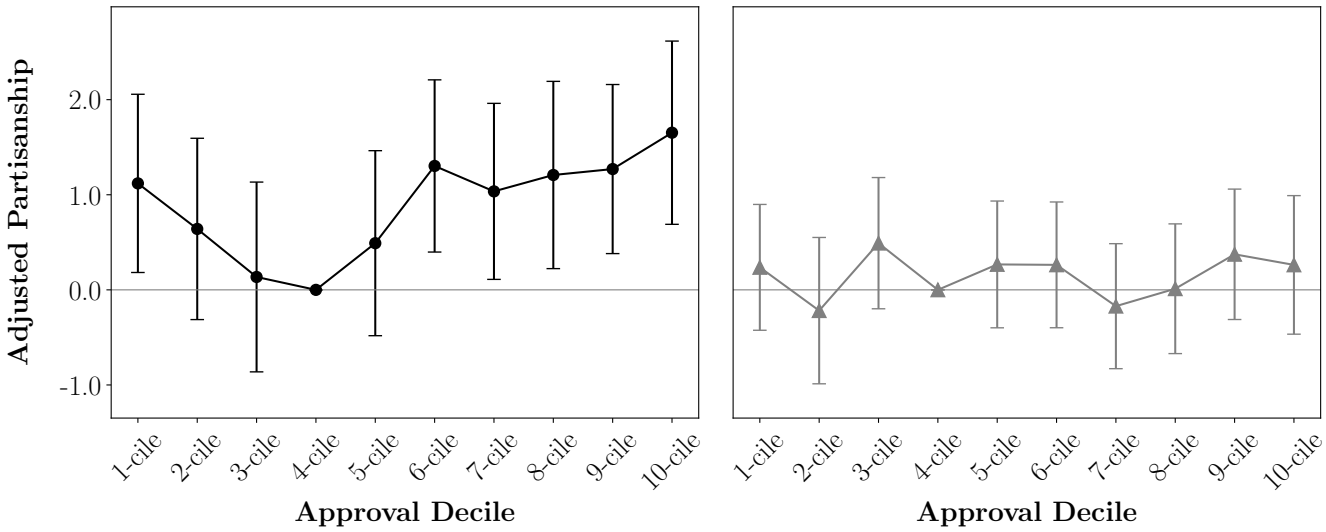
[26] I choose the fourth decile as the base category because, as we will see, partisanship experiences a trough in the fourth decile.

eligible governor with an *aligned* legislature, adjusting for lame duck behavior.[27]

5.2 Estimating Model's Predictions

The figure below plots the estimates of the β_k coefficients using black circles in panel (a) on the left. The sums of the $\beta_k + \delta_k$ coefficients are plotted using gray triangles in panel (b) on the right.

Figure 8: Partisanship of Reelectable Governors by Approval Decile, Adjusting for Lame Duck Behavior, Unaligned vs. Aligned Legislatures, 1990-2020



(a) Unaligned Legislatures (b) Aligned Legislatures

Dependent variable measures partisanship of U.S. governor State of the State speeches using leave-out estimator of Gentzkow, Shapiro, and Taddy (2019), as calculated in equation (3), normalized by sample mean and standard deviation. Horizontal axis plots approval decile of gubernatorial approval by state, calculated using previous year's fourth quarter approval from Singer (2023) after first year in office, with first quarter approval utilized for first year in office. Black circles plots β_k coefficients from equation (5), measuring level of partisanship for reelectable governors with unaligned legislatures in decile k, adjusting for behavior of lame ducks, relative to fourth decile. Gray triangles plot $\beta_k + \delta_k$, measuring level of partisanship for reelectable governors with aligned legislatures in decile k, adjusting for behavior of lame ducks, relative to fourth decile. Bands around coefficient estimates display 95% confidence intervals. Legislative alignment measured as whether more than half of state legislators match governor's party. N: 1108; num. states: 48; within R^2: 0.06. Regression contains year and state fixed effects.

[27]The α_k and γ_k coefficients have an analogous interpretation for reelection ineligible (lame duck) governors.

The left panel showcases a nonmonotonic relationship between approval decile and level of partisanship for unaligned legislatures. Being in the first decile of approval means governors' speeches are, on average, 1.1 standard deviations more partisan than in the fourth decile, falling gradually in the second and third deciles. Partisanship relative to the fourth decile begins rising in the fifth decile before remaining at between 1 to 1.5 standard deviations higher in the sixth through tenth deciles. This nonmonotonicity is consistent with prediction **P1** of our model.[28] For reference, the overall standard deviation of partisanship in the data is 0.042 percentage points, roughly twice the increase we see in Figure 6 from 2000 to 2020. Figure B.3. in the appendix plots the consequent *levels* of partisanship for reelectable governors and lame ducks — i.e. the α_k and $\alpha + \gamma_k$ coefficients and the $\alpha_k + \beta_k$ and $\alpha_k + \beta_k + \gamma_k + \delta_k$ from equation (5). It shows that the nonmonotone pattern in Figure 8(a) emerges as the difference between a shallower (but statistically significant) U pattern for reelectable governors and an upside-down U pattern for lame duck governors.

P2 suggests that when legislative alignment increases, the nonmonotonicity of **P1** flattens out. The lack of any evident relationship between approval and partisanship for aligned legislatures in the right panel is consistent with prediction **P2**. Appendix Figure B.4. shows that this finding is robust to alternative thresholds of legislative alignment. [29]

Table B.2. in the appendix lists the main regression coefficients for equation (5) from which Figure 8 is constructed. It shows that the coefficient on legislative alignment for reelectable governors is positive and statistically significant at the 10% level with a magnitude of 0.367 standard deviations. This is in line with the prediction of **P2** that increases in legislative alignment also cause increases in the baseline level of partisanship.

Figure B.5. additionally shows that the baseline result is robust to excluding the year reelectable governors are up for reelection; including *only* the year reelectable governors are eligible for reelection; and dropping observations for lame duck governors in their last year in office.[30] The lack of any obvious dynamic effects is in line with the theoretical model's robustness to multiple periods of passage.

[28] I also look at how approval deciles map onto winning gaps in gubernatorial elections. For governors eligible for reelection in the first approval decile, the average win gap is about six percentage points, i.e. a governor on average wins a race with about 53% of votes. This drops to less than four percentage points for swing states, which I define in the next section, with a large left tail. The average gap rises steadily until about 10 percentage points in the fifth decile and then all the way to 17 percentage points in the top decile.

[29] The results are strongest when defining legislative alignment as equal to 1 if more than 50 or 55% of legislators as matching the governor's party. The results are weaker using 45% or 60%. Although the former suffers from power issues, both findings are consistent with the comparative statics in Corollary 1. The median number of legislators of the governor's party is 55%. The 25^{th} and 75^{th} percentiles are respectively 43% and 65%.

[30] The nonmonotonicity is starkest when dropping lame ducks in their last year in office since, presumably, these governors have a substantively minimal policy agenda relative to prior years in office.

Disaggregation by Competition The model also predicts, via **P3**, that competitive "swing states" should exhibit more prominent nonmonotonicities than states where a single party always wins the governorship. To test this prediction of the model, I break states into three groups based on the frequency of governor party over the sample period. This allows states to be categorized via a time-invariant definition.

1. Republican States: states with a Republican governor more than 60% of the sample period (1990-2020).

2. Democratic States: states with a Democratic governor more than 60% of the sample period.

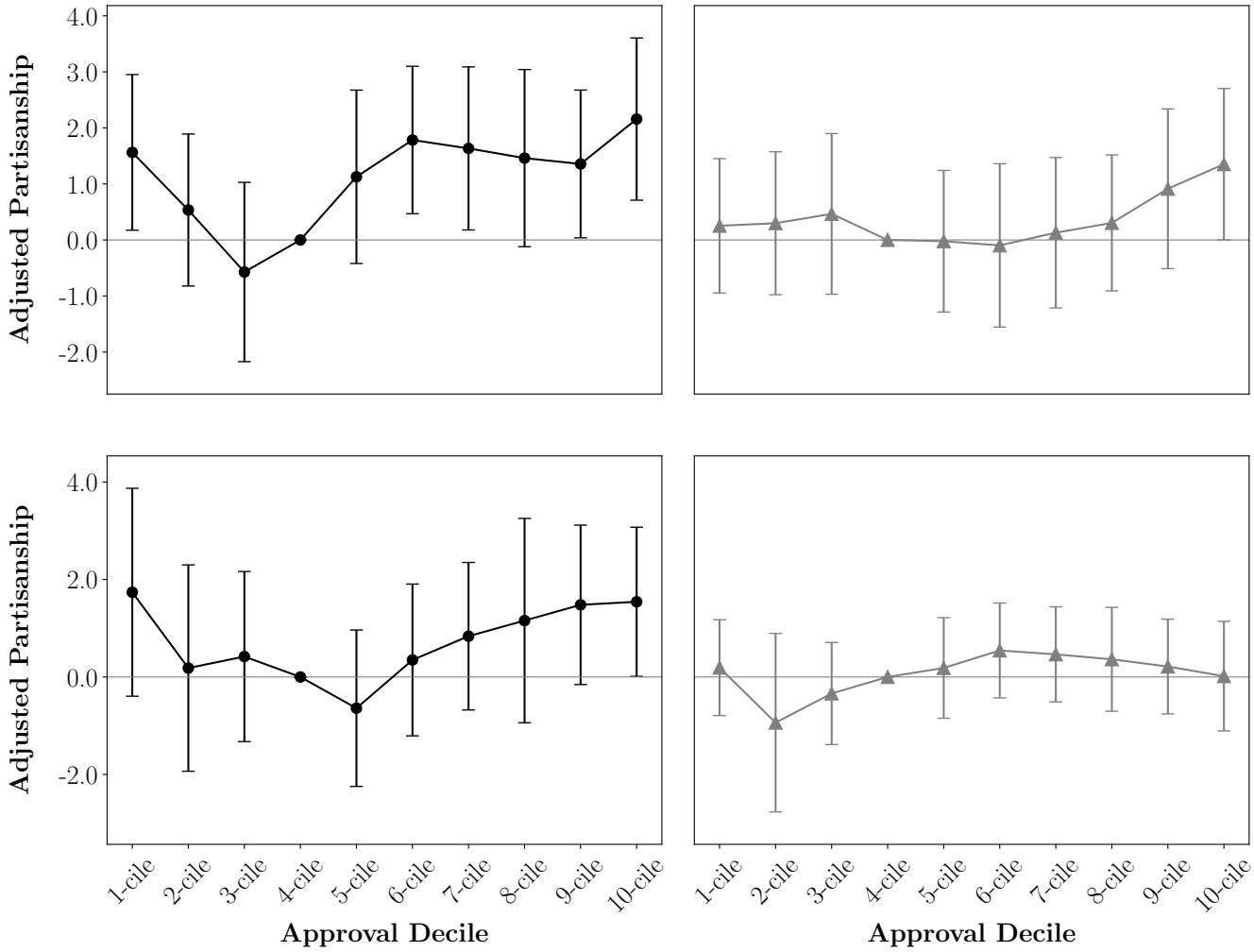
3. Swing States: remaining states, where the State governorship experiences fluctuations in party over the sample period.

A list of all states belonging to each category is displayed in Table B.3. The six panels of the figure below showcase estimations of equation (4) for the three categories of state competition: Swing, Republican, and Democratic.

Figure 9: Partisanship of Reelectable Governors by Approval Decile, Adjusting for Lame Duck Behavior, Unaligned vs. Aligned Legislatures, Disaggregated by Competition, 1990-2020

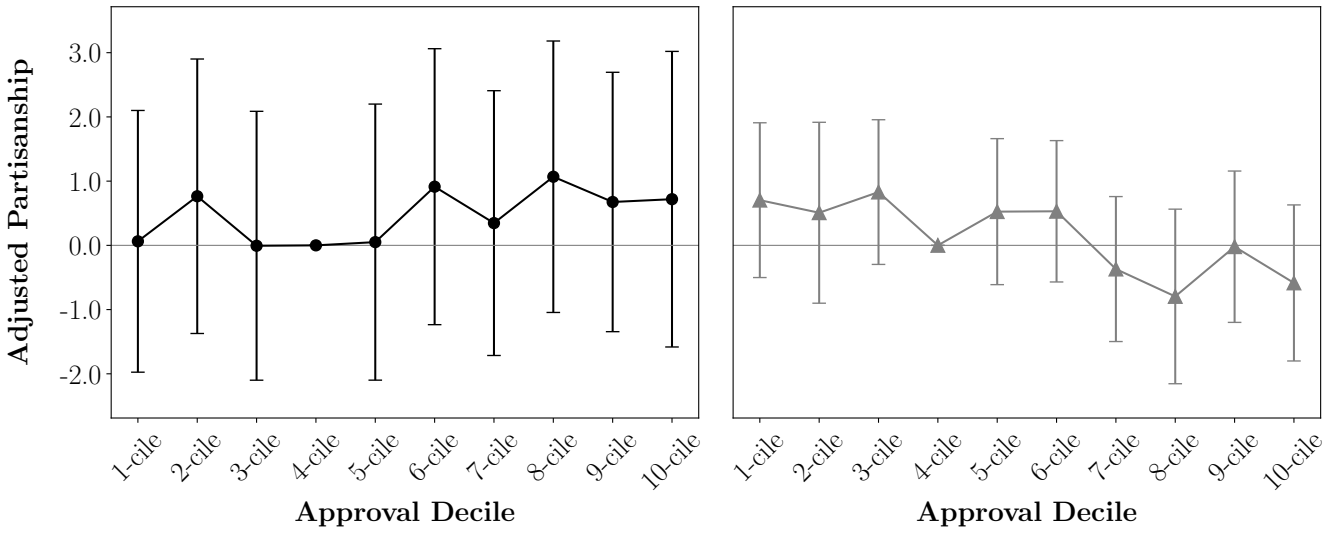
(a) Swing States, Unaligned Legislatures

(b) Swing States, Aligned Legislatures



(c) Rep. States, Unaligned Legislatures

(d) Rep. States, Aligned Legislatures



(e) Dem. States, Unaligned Legislatures (f) Dem. States, Aligned Legislatures

Dependent variable measures partisanship of U.S. governor State of the State speeches using leave-out estimator of Gentzkow, Shapiro, and Taddy (2019), as calculated in equation (3), normalized by sample mean and standard deviation. Horizontal axis plots approval decile of gubernatorial approval by state, calculated using previous year's fourth quarter approval from Singer (2023) after first year in office, with first quarter approval utilized for first year in office. Black series plots β_k coefficients from equation (4), measuring level of partisanship for reelectable governors with unaligned legislatures in decile k, adjusting for behavior of lame ducks, relative to fourth decile. Gray circles plot $\beta_k + \delta_k$, measuring level of partisanship for reelectable governors with aligned legislatures in decile k, adjusting for behavior of lame ducks, relative to fourth decile. Bands around coefficient estimates display 95% confidence intervals. Legislative alignment measured as whether more than half of state legislators match governor's party. Republican states defined as those states with Republican governor more than 60% of sample period. Democratic states defined as those states with Democratic governor more than 60% of sample period. Swing states defined as remaining states. For panels (a) and (b), N: 421; num. states: 18; within R^2: 0.16. For panels (c) and (d), N: 369; num. states: 16; within R^2: 0.19. For panels (e) and (f), N: 318; num. states: 14; within R^2: 0.22.

A nonmonotonicity resembling that in Figure 7(a) emerges most prominently in panels 8(a) and 8(c), respectively corresponding to swing and Republican states. Partisanship for these states in the first decile of approval is approximately two standard deviations higher than a trough in the third or fifth decile. For swing states, partisanship in the highest decile of approval is about 2.5 standard deviations than the trough, while for Republican states, partisanship is about 2 standard deviations higher.[31] Consistent with the model, these results vanish for governors aligned with their legislatures.

Democratic states in panels (e) and (f) exhibit no relationship between partisanship and approval ratings except for a slightly negative relationship for aligned legislatures in panel

[31]The asymmetry in partisanship, where the level of partisanship for the lowest approval governors is lower than that of the highest approval governors, is consistent with the general version of the model presented in Theorem 1.

(f). To this end, Democratic states provide strong evidence of prediction **P3**: the U-shape of the model should be weaker in states with entrenched parties. While the nonmonotonicity of Republican states in panel (c) is ever so slightly attenuated relative to the swing states in panel (a), one explanation for the more drastic effect for Democrats is that the governors sample tends slightly Republican. States with Democratic governors for more than 60% of the sample comprise 25% of the data, while 36% have Republican governors for more than 60% of the sample. [32]

5.3 Presidential Speech

Finally, although the existence of only one president at any given time limits empirical analysis of presidential speech, the framework of the paper can also provide qualitative insight into patterns in partisanship of presidential policies, as well as their effects on reelection.

For example, the resounding success of Franklin D. Roosevelt's first two New Deal policies amidst high approval ratings contributed to a landslide reelection in 1936, illustrating how the success of a partisan agenda can broadly secure reelection. At the same time, Roosevelt continued to pursue more radical reform in his second term in what scholars sometimes call a "Third New Deal" — "far reaching" efforts to greatly expand a social welfare state, establish fiscal Keynesianism, and address the plight of the "one-third of a nation ill-housed, ill-clad, ill-nourished" — which met significant opposition from many Republicans and centrist Democrats that, along with other failures, stymied his approval later in his second term (Jeffries, 1996, p. 396). FDR's consequent shift to bipartisan policies towards the end of his second term can be seen as a response to this negative change in approval, a decision likely helping him secure reelection. [33]

Similarly, Lyndon B. Johnson enjoyed high popularity ratings leading up to his reelection. [34] His consequent exhibition of political acumen — a keen handling of the Kennedy assassination and passage of landmark civil rights legislation through a "congressional log-jam" in less than a month (Caro, 2012) — contributed to a landslide reelection.[35] Johnson's

[32] While a more strict criterion for Republican states is appealing — such as, e.g., defining them as states with Republican governors for more than 70% of the sample — a definition like suffers from missing values for some lame duck categories.

[33] "The reinforcing impacts of the court-packing bill, the 1937-38 recession, labor activism, and the 1938 purge attempt both diminished popular support for FDR and increased congressional opposition to the New Deal. By shifting attention to foreign and military affairs, restoring prosperity, and enhancing the prestige and political clout of business, World War II contributed to the ebbing of reform energies and to stalemate and consolidation" (Jeffries, 1996, p. 398).

[34] References for presidential approval come from The American Presidency Project (2024).

[35] Caro writes: "To watch him deal with Congress, deal with the Kennedys, confront a dozen other challenges for which there was no precedent — for which he had to create his own precedents — is to watch a President, in very difficult circumstances, triumph over them, and it is therefore a means of gaining

soaring popularity may have further influenced his pursuit of the ambitious Great Society reforms and the War on Poverty, despite the contentions of many conservative politicians, in line with the sort of phenomena predicted by our model.

Conversely, the passage or failure of more bipartisan or nonpartisan legislation may not generate a strong enough signal to win politicians reelection when the odds are stacked against them. While Jimmy Carter, for example, "did have some successes with Congress", it was "often because he backed existing Democratic programs, such as raising the minimum wage" while his party held a bicameral supermajority; Carter gained a reputation for "political ineptitude" compounded by a hostage crisis, communication blunders, and contentious relations with legislators amidst plummeting approval ratings (Strong, 2024). To this end, his success in achieving bipartisan goals was not informativeness enough of his skill, given his context, to win him reelection . Similarly, George H.W. Bush's bipartisan accomplishments — the Americans with Disabilities Ac and Clean Air Act — could not save him from a perceived negligence of domestic affairs and an ongoing recession that led to his loss to Bill Clinton (Knott, 2024). Clinton performed well in the election — corresponding to an incumbent with high initial reputation in the model — setting him up to pursue an ambitious partisan healthcare reform within his first 100 days in office. However, after the bill's eventual failure and Clinton's subsequently middling approval ratings, the president shifted to a decidedly more bipartisan program that made significant concessions to the Republicans — manifest in his plan ending "welfare as we know it," ratification of NAFTA, and the 1996 Crime Bill (Riley, 2024). Clinton's initial pursuit of an ambitious partisan policy, the failure of that partisan policy hurting (although not dooming) his reputation, and his subsequent success in pursuing concessionary politics to secure reelection is in line with the story of this paper's model.

6 Conclusion

This paper explores how political executives may utilize partisan policies as a means of winning reelection and, thereby, how changes in executives' electoral environments may generate variation in partisanship. I develop a theory that interprets an incumbent executive's choice of policy agenda as an information structure over incumbent ability, where less partisan policies generate left skewness in the distribution of posteriors over incumbent ability and more partisan policies generate right skewness. Incumbents who face threshold retention rules as a function of their ability, as in much of the voting literature, then exhibit a nonmonotonic relationship between the partisanship of their policies and their reputation. As their rep-

new insight into some fundamental realities about the pragmatic potential in the American presidency."

utation increases, they first pursue partisan policy agendas, then bipartisan agendas, and then partisan agendas again. Utilizing an extension akin to a constrained persuasion model, I show that high reputation incumbents may even pursue more partisan policies than their low reputation counterparts. I show that these insights are robust to uncertainty in elections, allowing incumbents to choose opposing parties' platforms, and multiple periods of agenda setting.

I then apply these insights to explain how the partisanship of U.S. governors' policy proposals varies with changes in their electoral environments. I first document that gubernatorial partisanship —measured using governors' annual State of the State speeches — only becomes substantive after the early 2000s, creeps up slowly for the next decade, spikes after 2017, and consistently has a lower level than the comparable series for Congress. I then move to panel data to study partisanship of governors' policy proposals in these speeches, using the model to explore differences in the partisanship of reelectable and lame duck governors. I show that a nonmonotonic variation of gubernatorial partisanship with approval decile in unaligned legislatures matches that of the model, especially in swing states. I show that, in line with the model, increasing legislative alignment flattens this nonmonotonicity; that increasing legislative alignment also shifts up the baseline level of partisanship; and that states with entrenched parties are also less likely to showcase this nonmonotonicity. The panel analysis coupled with the theoretical analysis permits a view that changes in partisanship as not solely driven by latent trends in political landscapes but also shaped by elected officials' reelection incentives.

The paper broadly advances three research agendas. First, the model links the documentary literature on partisanship directly to the theoretical literature on political accountability. It provides a reputational and informational mechanism through which partisanship may manifest, grow, and fluctuate as a function of an incumbent executive's electoral environment.

Second, the documentation of trends in gubernatorial partisanship provides a novel series measuring partisanship of political executives by utilizing governors' State of the State speeches. It also provides a novel series measuring partisanship of political speech at the state level, and utilizes advances in large-language modeling to specifically probe the partisanship of policy proposals.

Finally, the paper links a theoretical framework to aggregate partisanship with specific attention to explaining *variations* in partisanship, contrasting with a large literature which has largely documented *trends* in partisanship. Crucially, the model does not interpret departures from trends or widely discussed state-level heterogeneity in partisanship as noise, but as structured deviations generated by incumbents' incentives to win reelection. Regres-

sion analysis of panel data on governor-level partisanship provides evidence of the model's mechanism, manifest in a nonmonotonic relationship between partisanship and popularity strongest for governors unaligned with their legislatures.

Executives at large, especially governors, exercise close control over public policies. In the dataset at hand, partisan attitudes manifest themselves in efforts to create affordable housing, combat climate change, restructure law enforcement, fund charter schools, extend healthcare coverage, raise minimum wages, create hospitable business environments, or cut taxes.[36] These policies have large effects on the shape of economic inequality, social stratification, and human capital acquisition within the States. Providing insight on when, how, and why politicians may pursue more or less partisan agendas permits richer insights into the timing, nature, and potential effects of these sorts of policies on the landscape of partisanship in American politics.

References

Algara, C., & Amlani, S. (2021). *Replication data for: Partisanship and nationalization in american elections: Evidence from presidential, senatorial, & gubernatorial elections in the u.s. counties, 1872–2020.* Harvard Dataverse. Retrieved from `https://doi.org/10.7910/DVN/DGUMFI` doi: 10.7910/DVN/DGUMFI

Alonso, R., & Câmara, O. (2016). Persuading voters. *American Economic Review*, *106*(11), 3590–3605.

Andeweg, R. B., Elgie, R., Helms, L., Kaarbo, J., & Mller-Rommel, F. (2020, 07). 1The Political Executive Returns: Re-empowerment and Rediscovery. In *The Oxford Handbook of Political Executives.* Oxford University Press. Retrieved from `https://doi.org/10.1093/oxfordhb/9780198809296.013.39` doi: 10.1093/oxfordhb/9780198809296.013.39

Arieli, I., Babichenko, Y., & Sandomirskiy, F. (2022). Bayesian persuasion with mediators. *arXiv preprint arXiv:2203.04285*.

Arold, B. W., Ash, E., MacLeod, W. B., & Naidu, S. (2024). Do words matter?

Ash, E., & Hansen, S. (2023). Text algorithms in economics. *Annual Review of Economics*, *15*(1), 659–688.

Ashworth, S., De Mesquita, E. B., & Friedenberg, A. (2017). Accountability and information in elections. *American Economic Journal: Microeconomics*, *9*(2), 95–138.

[36] These insights are gleaned from Table B.1.

Ballotpedia. (2024a). *List of current governors in the united states.* Retrieved from https://ballotpedia.org/List_of_current_governors_in_the_United_States (Accessed: 2024-09-18)

Ballotpedia. (2024b). *States with gubernatorial term limits.* Retrieved from https://ballotpedia.org/States_with_gubernatorial_term_limits (Accessed: 2024-09-18)

Behn, R. D. (1991). *Governors on governing*. University Press of America.

Bernecker, A., Boyer, P. C., & Gathmann, C. (2021). The role of electoral incentives for policy innovation: Evidence from the us welfare reform. *American Economic Journal: Economic Policy*, *13*(2), 26–57.

Besley, T., & Case, A. (1995). Does electoral accountability affect economic policy choices? evidence from gubernatorial term limits. *The Quarterly Journal of Economics*, *110*(3), 769–798.

Bils, P., & Izzo, F. (2022). Policymaking in times of crisis.

Bonica, A. (2014). Mapping the ideological marketplace. *American Journal of Political Science*, *58*(2), 367–386.

Brown, A. R. (2010). Are governors responsible for the state economy? partisanship, blame, and divided federalism. *The Journal of Politics*, *72*(3), 605–615.

Butler, D. M., & Sutherland, J. L. (2023). Have state policy agendas become more nationalized? *The Journal of Politics*, *85*(1), 351–355.

Card, D., Chang, S., Becker, C., Mendelsohn, J., Voigt, R., Boustan, L., ... Jurafsky, D. (2022). Computational analysis of 140 years of us political speeches reveals more positive but increasingly polarized framing of immigration. *Proceedings of the National Academy of Sciences*, *119*(31), e2120510119.

Carlino, G., Drautzburg, T., Inman, R., & Zarra, N. (2023). Partisanship and fiscal policy in economic unions: Evidence from us states. *American Economic Review*, *113*(3), 701–737.

Caro, R. A. (2012). *The passage of power: The years of lyndon johnson* (Vol. 4). Knopf.

Caughey, D., Xu, Y., & Warshaw, C. (2017). Incremental democracy: The policy effects of partisan control of state government. *The Journal of Politics*, *79*(4), 1342–1358.

Coffey, D. (2005). Measuring gubernatorial ideology: A content analysis of state of the state speeches. *State Politics & Policy Quarterly*, *5*(1), 88–103.

Curry, J. M., & Lee, F. E. (2020). *The limits of party.* Chicago: University of Chicago Press. Retrieved 2024-10-25, from https://doi.org/10.7208/9780226716497 doi: doi:10.7208/9780226716497

de Benedictis-Kessner, J., Jones, D., & Warshaw, C. (2024). How partisanship in cities

influences housing policy. *American Journal of Political Science*.

de Benedictis-Kessner, J., & Warshaw, C. (2020). Politics in forgotten governments: the partisan composition of county legislatures and county fiscal policies. *The Journal of Politics*, *82*(2), 460–475.

DellaVigna, S., & Kim, W. (2022). *Policy diffusion and polarization across us states* (Tech. Rep.). National Bureau of Economic Research.

Devlin, J., Chang, M., Lee, K., & Toutanova, K. (2018). BERT: pre-training of deep bidirectional transformers for language understanding. *CoRR*, *abs/1810.04805*. Retrieved from `http://arxiv.org/abs/1810.04805`

Dewan, T., & Hortala-Vallve, R. (2019). Electoral competition, control and learning. *British Journal of Political Science*, *49*(3), 923–939.

Diermeier, D., Keane, M., & Merlo, A. (2005). A political economy model of congressional careers. *American Economic Review*, *95*(1), 347–373.

DiLeo, D. (1997). Dynamic representation in the united states: Effects of the public mood on governors' agendas. *State and Local Government Review*, *29*(2), 98–109.

Dur, R. A. (2001). Why do policy makers stick to inefficient decisions? *Public Choice*, *107*(3-4), 221–234.

Ferguson, M. R. (2003). Chief executive success in the legislative arena. *State Politics & Policy Quarterly*, *3*(2), 158–182.

Ferreira, F., & Gyourko, J. (2009). Do political parties matter? evidence from us cities. *The Quarterly journal of economics*, *124*(1), 399–422.

Fu, Q., & Li, M. (2014). Reputation-concerned policy makers and institutional status quo bias. *Journal of Public Economics*, *110*, 15–25.

Gentzkow, M., Kelly, B., & Taddy, M. (2019). Text as data. *Journal of Economic Literature*, *57*(3), 535–574.

Gentzkow, M., Shapiro, J. M., & Taddy, M. (2019). Measuring group differences in high-dimensional choices: method and application to congressional speech. *Econometrica*, *87*(4), 1307–1340.

Goldgeier, J., & Saunders, E. N. (2018). The unconstrained presidency: checks and balances eroded long before trump. *Foreign Aff.*, *97*, 144.

Grossmann, M., Jordan, M. P., & McCrain, J. (2021). The correlates of state policy and the structure of state panel data. *State Politics & Policy Quarterly*, *21*(4), 430–450.

Grumbach, J. M. (2018). From backwaters to major policymakers: policy polarization in the states, 1970–2014. *Perspectives on Politics*, *16*(2), 416–435.

Hansen, S., McMahon, M., & Prat, A. (2018). Transparency and deliberation within the fomc: A computational linguistics approach. *The Quarterly Journal of Economics*,

133(2), 801–870.

Heidbreder, B. (2012). Agenda setting in the states: How politics and policy needs shape gubernatorial agendas. *Politics & Policy*, *40*(2), 296–319.

Hopkins, D. J., Schickler, E., & Azizi, D. L. (2022). From many divides, one? the polarization and nationalization of american state party platforms, 1918–2017. *Studies in American Political Development*, *36*(1), 1–20.

Iaryczower, M., Lopez-Moctezuma, G., & Meirowitz, A. (2024). Career concerns and the dynamics of electoral accountability. *American Journal of Political Science*, *68*(2), 696–713.

Ichihashi, S. (2019). Limiting sender's information in bayesian persuasion. *Games and Economic Behavior*, *117*, 276–288.

Izzo, F. (2024). With friends like these, who needs enemies? *The Journal of Politics*, *86*(3), 835–849.

Izzo, F., Martin, G. J., & Callander, S. (2021). Ideological competition. *SocArXiv. February*, *19*.

Jacobson, G. C. (2006). The polls: polarized opinion in the states: partisan differences in approval ratings of governors, senators, and george w. bush. *Presidential Studies Quarterly*, *36*(4), 732–757.

Jeffries, J. W. (1996). A "third new deal"? liberal policy and the american state, 1937-1945. *Journal of Policy History*, *8*(4), 387–409. doi: 10.1017/S089803060000539X

Jensen, J., Naidu, S., Kaplan, E., Wilse-Samson, L., Gergen, D., Zuckerman, M., & Spirling, A. (2012). Political polarization and the dynamics of political language: Evidence from 130 years of partisan speech [with comments and discussion]. *Brookings Papers on Economic Activity*, 1–81.

Judd, G. (2017). Showing off: promise and peril in unilateral policymaking. *Quarterly Journal of Political Science*, *12*(2), 241–268.

Kamenica, E., & Gentzkow, M. (2011). Bayesian persuasion. *American Economic Review*, *101*(6), 2590–2615.

Klarner, C. (2013). *State Partisan Balance Data, 1937 - 2011.* Harvard Dataverse. Retrieved from `https://doi.org/10.7910/DVN/LZHMG3` doi: 10.7910/DVN/LZHMG3

Knott, S. (2024). *George h.w. bush: Impact and legacy.* Retrieved from `https://millercenter.org/president/bush/impact-and-legacy` (Accessed: 2024-10-28)

Kousser, T., & Phillips, J. H. (2012). *The power of american governors: Winning on budgets and losing on policy.* Cambridge University Press.

Larimer, C. W. (2015). Title of larimer's article here. In D. P. Redlawsk (Ed.), *The american governor: Power, constraint, and leadership in the states.* Springer.

Leigh, A. (2008). Estimating the impact of gubernatorial partisanship on policy settings and economic outcomes: A regression discontinuity approach. *European Journal of Political Economy*, *24*(1), 256–268.

Levy, G., & Razin, R. (2021). Short-term political memory and the inevitability of polarisation. *Unpublished*.

Leyden, K. M., & Borrelli, S. A. (1995). The effect of state economic conditions on gubernatorial elections: Does unified government make a difference? *Political Research Quarterly*, *48*(2), 275–290.

Lipnowski, E., Ravid, D., & Shishkin, D. (2022). Persuasion via weak institutions. *Journal of Political Economy*, *130*(10), 2705–2730.

Lushkov, G. (2019). *Governors' rhetorical attention to education: Text analysis, historical perspectives and building a gubernatorial addresses repository.* Plymouth State University.

Majumdar, S., & Mukand, S. W. (2004). Policy gambles. *American Economic Review*, *94*(4), 1207–1222.

McCarty, N. (2019). *Polarization: What everyone needs to know.* Oxford University Press.

National Conference of State Legislatures. (2024). *State partisan composition.* Retrieved from `https://www.ncsl.org/about-state-legislatures/state-partisan-composition` (Accessed: 2024-08-20)

National Governors Association. (2018). *Governors' office onboarding guide: Legislative relations.* Retrieved from `https://www.nga.org/wp-content/uploads/2018/10/Governors-Office-Onboarding-Guide-Legislative-Relations.pdf` (Accessed: 2024-08-16)

National Governors Association. (2019, October). *Overseeing state government operations in the governor's office* (Tech. Rep.). National Governors Association. Retrieved from `https://www.nga.org/wp-content/uploads/2019/10/Overseeing-State-Gov-Ops-in-the-Govs-Office.pdf`

National Governors Association. (2024). *Former governors.* Retrieved from `https://www.nga.org/former-governors/` (Accessed: 2024-09-18)

Peterson, A., & Spirling, A. (2018). Classification accuracy as a substantive quantity of interest: Measuring polarization in westminster systems. *Political Analysis*, *26*(1), 120–128.

Peterson, E. (2024). Presidential power surges. Retrieved from `https://hls.harvard.edu/today/presidential-power-surges/` (Accessed: 2024-10-25)

Pulejo, M., & Querubín, P. (2021). Electoral concerns reduce restrictive measures during the covid-19 pandemic. *Journal of public economics*, *198*, 104387.

Reynolds, M. (2024). Improving congressional capacity to address problems and oversee the executive branch. Retrieved from https://www.brookings.edu/articles/improving-congressional-capacity-to-address-problems-and-oversee-the-executive-branch/ (Accessed: 2024-10-25)

Riley, R. (2024). *Bill clinton.* Retrieved from https://millercenter.org/president/clinton (Accessed: 2024-10-29)

Scheppach, R. C. (2005, November). What makes a successful governor? *Stateline*. Retrieved from https://stateline.org/2005/11/30/what-makes-a-successful-governor/

Shor, B., & McCarty, N. (2011). The ideological mapping of american legislatures. *American Political Science Review*, *105*(3), 530–551.

Singer, M. M. (2023). Dynamics of gubernatorial approval: Evidence from a new database. *State Politics & Policy Quarterly*, *23*(3), 306–326.

Strong, R. A. (2024). *Jimmy carter: Domestic affairs.* Retrieved from https://millercenter.org/president/carter/domestic-affairs (Accessed: 2024-10-28)

The American Presidency Project. (2024). *Presidential statistics.* Retrieved from https://www.presidency.ucsb.edu/statistics (Accessed: 2024-10-29)

Warner, S. B. (2023). Measuring executive ideology and its influence. *State Politics & Policy Quarterly*, *23*(1), 97–116.

Weinberg, M. (2010). Measuring governors' political orientations using words as data. *State Politics & Policy Quarterly*, *10*(1), 96–109.

Wolak, J., & Parinandi, S. (2022). Does the public hold governors accountable for policy outcomes? *Political Research Quarterly*, *75*(4), 1051–1064.

Appendix A Proofs and Theoretical Extensions

A.1 Main Proofs

Proposition 1. *There exist thresholds* $0 < \underline{q} < q_L^2 < \overline{q} < 1$ *such that:*

- *for* $q_R^1 \in [0, \underline{q})$, $\pi^*(q_R^1)$ *is strictly decreasing, with* $\pi^*(0) = 1$ *and* $\pi^*(\underline{q}) = 0$*;*
- *for* $q_R^1 \in [\underline{q}, \overline{q})$, $\pi^*(q_R^1) = 0$*;*
- *for* $q_R^1 \in [\overline{q}, 1]$, $1 \in \pi^*(q_R^1)$ *with equality at* $\overline{q}$*.*

Proof. Note in general the following formulae for posteriors as a function of π, fixing q_R^1:

$$\overline{q}_R^2(\pi) = \frac{(\lambda + (1-\lambda)(1-\pi))q_R^1}{\lambda q_R^1 + (1-\lambda)(1-\pi)}$$
$$\underline{q}_R^2(\pi) = \frac{(1-\lambda)\pi q_R^1}{\lambda(1-q_R^1) + (1-\lambda)\pi}.$$

Note that $\overline{q}_R^2$ is decreasing in π while $\underline{q}_R^2$ is increasing in π.

Next, fix $q_R^1 \in (0,1)$. Consider the following sets $\overline{P}$ and $\underline{P}$:

$$\underline{P}(q_R^1) := \{\pi : \overline{q}_R^2(\pi) \geq q_L^2, \underline{q}_R^2(\pi) < q_L^2\}$$
$$\overline{P}(q_R^1) := \{\pi : \underline{q}_R^2(\pi) \geq q_L^2\}.$$

Note that $\underline{P}$ is always nonempty ($\ni \pi = 1$) but $\overline{P}$ is empty for q_R^1 low. I claim that $\pi^*(q_R^1) = \min\{\underline{P}(q_R^1)\}$ when $\overline{P} = \varnothing$ and $\overline{P}$ otherwise.

First, any $\pi \notin \overline{P}, \underline{P}$ always leads to an expected win probability of 0; these are dominated by any $\pi \in \underline{P}$. Next, for any $\pi \in \underline{P}$, the expected win probability is $\lambda q_R^1 + (1-\lambda)(1-\pi)$, which is the likelihood of seeing $\overline{q}_R^2$. This probability is maximized when π is minimized, i.e. at $\min\{\underline{P}(q_R^1)\}$. If $\overline{P}$ is empty, then $\pi^*(q_R^1) = \min\{\underline{P}(q_R^1)\}$. Finally, if $\overline{P}$ is nonempty, any $\pi \in \overline{P}$ leads to a win with probability 1, meaning $\pi^*(q_R^1) = \overline{P}(q_R^1)$.

Next, we show $\min\{\underline{P}(q_R^1)\}$ is strictly decreasing in π until a point $\underline{q}$, whereafter it is equal to 0. In general, $\min\{\underline{P}(q_R^1)\}$ is the solution to $\frac{(\lambda+(1-\lambda)(1-\pi))q_R^1}{\lambda q_R^1+(1-\lambda)(1-\pi)} = q_L^2$. As q_R^1 rises, the left-hand-side increases for each π, meaning the π solving this equation decreases. The solution to this equation exists up until some $\underline{q} < q_L^2$, defined by $\frac{(\lambda+(1-\lambda))\underline{q}}{\lambda\underline{q}+(1-\lambda)} = q_L^2$, where $\pi = 0$ and can no longer decrease. For $q_R^{1\prime} > q_R^1$, if $\pi \in \underline{P}(q_R^1)$, then $\pi \in \underline{P}(q_R^{1\prime})$, meaning $\min\{\underline{P}(q_R^1)\} = 0$ for $q_R^1 \geq \overline{q}$. Finally, as $q_R^1 \to 0$, $\pi \to 1$.

Finally, we show that there exists $\overline{q} > q_L^2$ such that $\overline{P}(q_R^1) \neq \varnothing$ if and only if $q_R^1 \geq \overline{q}$. Note that, fixing q_R^1, the expression for $\underline{q}_R^2$ is maximized when $\pi = 1$. This means that $\overline{P}$ is nonempty if and only if $\frac{(1-\lambda)q_R^1}{1-\lambda q_R^1} \geq q_L^2$, which occurs if and only if $q_R^1 \geq \overline{q} > q_L^2$ defined as the implicit solution to $\frac{(1-\lambda)\overline{q}}{1-\lambda\overline{q}} = q_L^2$.

The comparative statics with respect to q_L^2 and λ emerge directly from the equations defining $\overline{q}$ and $\underline{q}$. □

Proposition 2. *The equilibrium value of learning for the voter, $V_V(\pi^*)$, is as follows.*

- *For $q_R^1 \in [0, \underline{q}]$, $V_V(\pi^*) = q_L^2$;*
- *for $q_R^1 \in [\underline{q}, \overline{q})$, $V_V(\pi^*) = q_R^1 + \lambda(1-q_R^1)q_L^2$;*

- *for* $q_R^1 \in [\overline{q}, 1]$, $V_R(\pi^*) = q_R^1$.

Proof. Below $\underline{q}$, we either have $q_R^1 \to \underline{q}_R^2 < q_L^2$ or $q_R^1 \to \overline{q}_R^2 = q_L^2$. In the former case, V elects L and receives q_L^2; in the latter, she is indifferent between R and L but receives q_L^2 either way. In the region $(\underline{q}, \overline{q})$, $q_R^1 \to 0$ or some $\overline{q}_R^2 > q_L^2$. In the former case, V replaces R but in the latter she is retained, and her expected ability is greater than q_L^2. Finally, for $q_R^1 \geq \overline{q}$, R is always retained. The expected value of the posterior q_2^R is, as a result, simply the prior q_R^1. □

Proposition 3. *As* $q_L^2 \to 1$, $\underline{q} \to \overline{q}$. *As* $q_L^2 \to 0$, $\overline{q} \to \underline{q}$. *There exists* q_L^{2*} *that maximizes the size of the interval* $[\underline{q}, \overline{q})$.

Proof. The closed forms for $\underline{q}, \overline{q}$ are respectively, based on the previous proposition:

$$\frac{(1-\lambda)q_L^2}{1-\lambda q_L^2}, \frac{q_L^2}{1-\lambda(1-q_L^2)}.$$

Both terms are increasing in q_L^2. The derivative of the difference of these two terms with respect to q_L^2 is given by:

$$\frac{1-\lambda}{(1-\lambda(1-q_L^2))^2} - \frac{1-\lambda}{(1-\lambda q_L^2)^2}$$

which is positive for $q_L^2 \leq 1/2$, negative when $q_L^2 \geq 1/2$, and $= 0$ at $q_L^{2*} = 1/2$. □

The following two lemmata are used to prove Theorem 1.

Lemma 1. *Suppose* w *is a differentiable, strictly concave, and strictly increasing function defined over* q_R^2. *Then, there exists* $p \in [0,1]$ *such that the expected value of* w *over the lottery of posteriors* $\overline{q}_R^2, \underline{q}R^2$ *is maximized when* $(p_1, p_0) = (p, p)$.

Proof. We make a slight change of notation, $q_R^1 = q$. Our problem describing the maximum of w over the lotteries over q_R^2 is given by:

$$\max_{p_1 \geq p_0} \int_{q_R^2} w(q_R^2) dF(q_R^2 | p_1, p_0, q).$$

Let $g(p_1)$ be the probability of a success conditional on $a_R = 1$; and $h(p_0)$ the probability of success conditional on $a_R = 0$. Note that the distribution of posteriors $F(q_R^2 | p_1, p_0, q_R^2)$ is a two-point mean preserving spread of the prior q.

Suppose by contradiction that $p_1 > p_0$. This means that there would exist p_1, p_0 such that

$$\overline{q}_R^2(p_1, p_0) = \frac{g(p_1)q}{g(p_1)q + h(p_0)(1-q)}$$
$$\underline{q}_R^2(p_1, p_0) = \frac{q - qg(p_1)}{1 - qg(p_1) - (1-q)h(p_0)}.$$

The partial derivatives of $\overline{q}_R^2$ are:

$$\begin{aligned} p_1 \qquad & q(1-q)g'(p_1)\frac{h(p_0)}{[g(p_1)q + h(p_0)(1-q)]^2} > 0 \\ p_0 \qquad & -q(1-q)h'(p_0)\frac{g(p_1)}{[g(p_1)q + h(p_0)(1-q)]^2} < 0. \end{aligned}$$

The partial derivatives of $\underline{q}_R^2$ are:

$$\begin{aligned} p_1 \qquad & -q(1-q)g'(p_1)\frac{(1-h(p_0))}{[1 - qg(p_1) - (1-q)h(p_0)]^2} < 0 \\ p_0 \qquad & q(1-q)h'(p_0)\frac{(1-g(p_0))}{[1 - qg(p_1) - (1-q)h(p_0)]^2} > 0 \end{aligned}$$

Suppose we marginally decrease p_1 by Δ_1 and increase p_0 by Δ_0 so that $\overline{q}_R^2$ remains the same, i.e.

$$\begin{aligned} q(1-q)g'(p_1)\frac{h(p_0)}{[g(p_1)q + h(p_0)(1-q)]^2}\Delta_1 = q(1-q)h'(p_0)\frac{g(p_1)}{[g(p_1)q + h(p_0)(1-q)]^2}\Delta_0 \\ \implies g'(p_1)h(p_0)\Delta_1 - g(p_1)h'(p_0)\Delta_0 = 0 \end{aligned}$$

The sign of the change in $\underline{q}_R^2$ is then the sign of:

$$\begin{aligned} & -g'(p_1)(1-h(p_0))\Delta_1 + h'(p_0)(1-g(p_1)\Delta_0 \\ = g'(p_1)h(p_0))\Delta_1 - g(p_1)h'(p_0)\Delta_0 - g'(p_1)\Delta_1 + h'(p_0)\Delta_0 \\ & = -g'(p_1)\Delta_1 + h'(p_0)\Delta_0 \end{aligned}$$

$g(p_1)$ is given by $\lambda + (1-\lambda)p_1$, so its derivative is $(1-\lambda)$. $h(p_0)$ is given by $(1-\lambda)p_0$, so its derivative is also $(1-\lambda)$. Hence, the sign of the change in $\underline{q}_R^2$ is the sign of $\Delta_0 - \Delta_1$.

I claim that $\Delta_0 > \Delta_1$. The expressions for these are

$$\Delta_1 = q(1-q)g'(p_1)h(p_0)$$
$$\Delta_0 = q(1-q)g(p_1)h'(p_0).$$

The latter is larger than the former if and only if

$$g(p_1)h'(p_0) > g'(p_1)h(p_0).$$

Since $h'(p_0) = g'(p_1) = 1 - \lambda$, this is true if and only if $g(p_1) > h(p_0)$, which is always true by the constraint that $p_1 \geq p_0$ (i.e. the conditional likelihood of a success is higher for $a_R = 1$ than $a_R = 0$). Hence, decreasing p_1 by Δ_1 and raising p_0 by Δ_0 keeps $\overline{q}_R^2$ fixed while raising $\underline{q}_R^2$, generating a mean preserving contraction of the original lottery over posteriors. Because w is strictly increasing and concave, this new lottery over posteriors is preferred to the original generated by (p_1, p_0), a contradiction. Hence, we always have that w is maximized when $p_1 = p_0 = p$. □

Lemma 2. *Suppose w is a differentiable, strictly concave, and strictly increasing function defined over q_R^2. Then, the lottery generated by $(p, p) = (0, 0)$ over q_R^2 dominates all other (p_1, p_0).*

Proof. Note first that $\overline{q}_R^2$ is strictly decreasing as a function of p, meaning $\overline{q}_R^2$ is maximized at $p = 0$. Note that any lottery over posteriors can be represented with a line segment connecting $(\underline{q}_R^2, w(\underline{q}_R^2))$ and $(\overline{q}_R^2, w(\overline{q}_R^2))$, with the expected value of the lottery given by the point on the segment corresponding to the prior q.

Note that, fixing $\overline{q}_R^2$, flatter line segments correspond to higher expected values. It then suffices to show that the line segment connecting $(\underline{q}_R^2, w(\underline{q}_R^2))$ and $(\overline{q}_R^2, w(\overline{q}_R^2))$ is shallowest at $p = 0$ — where $w(\overline{q}_R^2)$ is additionally maximal. I.e., its slope, given by

$$\frac{w(\overline{q}_R^2(p)) - w(\underline{q}_R^2(p))}{\overline{q_R^2} - \underline{q}_R^2},$$

achieves a minimum at $p = 0$. The numerator of the derivative of this expression is given by:

$$[\overline{q_R^2} - \underline{q}_R^2][w'(\overline{q}_R^2)\overline{q_R^2}' - w'(\underline{q}_R^2)\underline{q_R^2}'] - [w(\overline{q}_R^2) - w(\overline{q}_R^2)][\overline{q}_R^{2\prime} - \underline{q}_R^{2\prime}]$$

Note that $h'(p) = g'(p) = (1 - \lambda)$, and that $g(p) - h(p) = \lambda$, so that:

$$\begin{aligned}\overline{q}_R^{2\prime} - \underline{q}_R^{2\prime} &= \frac{q(1-q)[g'(p)h(p) - h'(p)g(p)]}{[qg(p) + (1-q)h(p)]^2} - \frac{q(1-q)[g'(p)(1-h(p)) - h'(p)(1-g(p))}{[1 - qg(p) - (1-q)h(p)]^2} \\ &= \frac{q(1-q)\lambda(1-\lambda)}{[1 - qg(p) - (1-q)h(p)]^2} - \frac{q(1-q)\lambda(1-\lambda)}{[qg(p) + (1-q)h(p)]^2}\end{aligned}$$

Hence the derivative above is ≥ 0 if and only if

$$
\begin{aligned}
[\overline{q_R^2} - \underline{q}_R^2][-w'(\overline{q}_R^2)\frac{q(1-q)\lambda(1-\lambda)}{[qg(p)+(1-q)h(p)]^2} + w'(\underline{q}_R^2)\frac{q(1-q)\lambda(1-\lambda)}{[1-qg(p)-(1-q)h(p)]^2}] \\
-[w(\overline{q}_R^2) - w(\overline{q}_R^2)]\left[\frac{q(1-q)\lambda(1-\lambda)}{[1-qg(p)-(1-q)h(p)]^2} - \frac{q(1-q)\lambda(1-\lambda)}{[qg(p)+(1-q)h(p)]^2}\right] \geq 0 \\
\frac{w'(\underline{q}_R^2)}{[1-qg(p)-(1-q)h(p)]^2} - \frac{w'(\overline{q}_R^2)}{[qg(p)+(1-q)h(p)]^2} \\
\geq \frac{\frac{w(\overline{q}_R^2)-w(\overline{q}_R^2)}{\overline{q_R^2}-\underline{q}_R^2}}{[1-qg(p)-(1-q)h(p)]^2} - \frac{\frac{w(\overline{q}_R^2)-w(\overline{q}_R^2)}{\overline{q_R^2}-\underline{q}_R^2}}{[qg(p)+(1-q)h(p)]^2}
\end{aligned}
$$

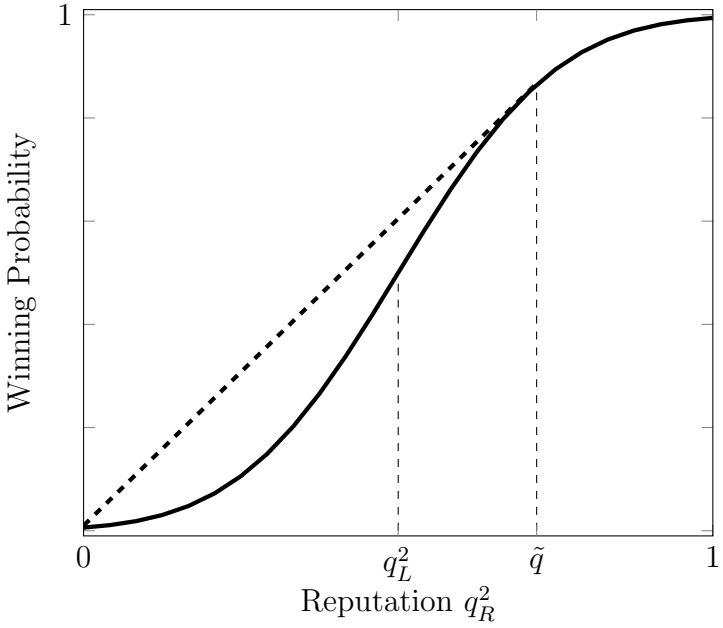
Note in particular that by concavity, $w'(\underline{q}_R^2) > \frac{w(\overline{q}_R^2)-w(\overline{q}_R^2)}{\overline{q_R^2}-\underline{q}_R^2} > w'(\underline{q}_R^2)$. This means that the first term on the left is always strictly larger than the first time on the right; and that the magnitude of the second term on the left is smaller than the magnitude of the second term on the right, so that this expression is always true, i.e. the derivative is positive for all p. Hence, the slope of the segment achieves a minimum at $p = 0$, showing the result. □

Theorem 1. *There exist thresholds $\underline{q} < \overline{q}$ such that:*

- *for $q_R^1 \leq \underline{q}$, $\pi^*(q_R^1)$ is strictly decreasing. $p^*(0) = (1,0)$ and $\pi^*(0) = 1/2$, while $\pi^*(\underline{q}) = 0$ and $\pi^*(\underline{q}) = 0$.*
- *For $q_R^1 \in [\underline{q}, \overline{q})$, $p^* = (1,1)$ and $\pi^* = 0$;*
- *for $q_R^1 \geq \overline{q}$, $p^* = (0,0)$ and $\pi^* = 1$.*

Proof. The proof of this result makes use of the previous two lemmata. First, note that the concavification of $N(q_R^2 - q_L^2)$ is characterized by a point $\tilde{q} > q_L^2$. Specifically, the concavification is given by a line segment connection the points $(0, N(-q_L^2))$ and $(\tilde{q}, N(\tilde{q} - q_L^2))$, where $\tilde{q}$ solves $N'(\tilde{q} - q_L^2)\tilde{q} = N(\tilde{q} - q_L^2) - N(-q_L^2)$, followed by the curve N itself for $q \geq \tilde{q}$. Note also that N is strictly concave for $q_R^1 > q_L^2$ and strictly convex for $q_R^1 < q_L^2$. These are shown in the figure below, where the solid line is $N(q_R^2 - q_L^2)$ and the dashed line the concavification.

Figure A.1: Concavification of $N(q_R^2 - q_L^2)$



Next, notice that there exists $0 < \underline{q} < \tilde{q}$ such that for all $q_R^1 \leq \underline{q}$, we can choose p_1 and p_0 to achieve the concavification. Since $\underline{q}_R^2$ must = 0 for any point $\leq \tilde{q}$ to achieve the concavification, we must have $p_1 = 1$ and vary p_0. p_0 must then solve, for each q_R^1,

$$\frac{q_R^1}{q_R^1 + (1-\lambda)(1-q_R^1)p_0} = \tilde{q}.$$

Notice that this expression is minimized when $p_0 = 1$, when it is equal to $\frac{q_R^1}{q_R^1+(1-\lambda)(1-q_R^1)}$. Let $\underline{q}$ solve $\frac{\underline{q}}{\underline{q}+(1-\lambda)(1-\underline{q})} = \tilde{q}$. Note that for all $q_R^1 > \underline{q}$, there does not exist $p_0 \in [0,1]$ such that the posteriors $(\overline{q}_R^2, \underline{q}_R^2) = (\tilde{q}, 0)$ are achievable. It is easy to see that for all $q \leq \underline{q}$, there exists $p_0(q_R^1)$ that achieves these posteriors, with p_0 given directly by

$$p_0 = \frac{q_R^1(1-\tilde{q})}{(1-\lambda)(1-q_R^1)\tilde{q}},$$

which is strictly increasing from 0 at $q_R^1 = 0$ to 1 at $\underline{q}$. This argument uses a similar approach to Proposition 1.[37]

Next, we show that for all $q_R^1 \geq \underline{q}$, $(p_1, p_0) = (1,1)$ dominates any (p_1, p_0) such that $\underline{q}_R^2 < q_L^2$. Suppose by contradiction that there exists $(p_1, p_0) \neq (1,1)$ such that $\underline{q}_R^2 < q_L^2$, which dominates $(1,1)$. Because $\overline{q}_R^2$ is minimized at $(p_1, p_0) = (1,1)$, we necessarily have that

[37] In particular, $\frac{\underline{q}}{\underline{q}+(1-\lambda)(1-\underline{q})} = \tilde{q}$ gives the comparative static of $\underline{q}$ with respect to λ and q_L^2. Increasing λ decreases $\underline{q}$. Increasing q_L^2 increases $\tilde{q}$ and hence increases $\underline{q}$.

$\overline{q}_R^2 > q_L^2$, so that $\overline{q}_R^2$ is on the concave portion of N. Suppose first that $p_1 = 1$ so that $\underline{q}_R^2 = 0$. The expected value of this lottery is the line segment from $(0, N(-q_L^2))$ to $(\overline{q}_R^2, N(\overline{q}_R^2 - q_L^2))$. Since $p_0 < 1$, we can generate a strict improvement by increasing p_0, which slightly lowers $\overline{q}_R^2$. However, because $\overline{q}_R^2$ is on the concave portion of N, the line segment from $(0, N(-q_L^2))$ to $(\overline{q}_R^2, N(\overline{q}_R^2 - q_L^2))$ becomes steeper while originating from the same point $(0, N(-q_L^2))$. Because the expected value from (p_1, p_0) lies on the point on the segment corresponding to q_1^2, this steepening generates an improvement on the original (p_1, p_0), a contradiction.

Hence, suppose $p_1 < 1$ so that $\underline{q}_R^2 > 0$. If $p_0 > 0$, we can reverse the argument in Lemma 1 and slightly raise p_1 and lower p_0 so that $\overline{q}_R^2$ remains the same but $\underline{q}_R^2$ decreases. The line segment connecting $(\underline{q}_R^2, N(\underline{q}_R^2 - q_L^2))$ to $(\overline{q}_R^2, N(\overline{q}_R^2 - q_L^2))$ becomes shallower, while its upper point $(\overline{q}_R^2, N(\overline{q}_R^2 - q_L^2))$ remains the same, meaning the line rotates upwards, again generating an improvement. If $p_0 = 0$, increasing p_0 causes both $\underline{q}_R^2$ and $\overline{q}_R^2$ to decrease. However, because $\overline{q}_R^2$ is on the concave portion of N and $\underline{q}_R^2$ on the convex portion, this generates a left/upward shift in the line segment connecting $(\underline{q}_R^2, N(\underline{q}_R^2 - q_L^2))$ to $(\overline{q}_R^2, N(\overline{q}_R^2 - q_L^2))$, again generating an improvement.

Next, we show that there exists $\overline{q}$ such that for all $q_R^1 \geq \overline{q}$, $(p_1, p_0) = (0, 0)$ dominates $(1, 1)$. $(0, 0)$ generates posteriors $\overline{q}_R^2 = 1$ and $\underline{q}_R^2 = \frac{(1-\lambda)q_R^1}{1-\lambda q_R^1}$. Note that because $1 > \frac{q_R^1}{q_R^1 + (1-\lambda)(1-q_R^1)}$, a sufficient condition for this to hold is that the line segment connecting and $(\frac{(1-\lambda)q_R^1}{1-\lambda q_R^1}, N(\frac{(1-\lambda)q_R^1}{1-\lambda q_R^1} - q_L^2)$ and $(1, N(1-q_L^2))$ is shallower than that connecting $(0, N(-q_L^2))$ to $(\frac{q_R^1}{q_R^1 + (1-\lambda)(1-q_R^1)}, N(\frac{q_R^1}{q_R^1 + (1-\lambda)(1-q_R^1)} - q_L^2))$. As $q_R^1 \to 1$, the slope of the former line segment approaches 0; while the slope of the latter approaches $N(1-q_L^2) - N(-q_L^2)$. Because the change in these slopes is monotone as long as q_R^1 is sufficiently high (i.e. as long as $\frac{(1-\lambda)q_R^1}{1-\lambda q_R^1} \geq q_L^2$) , by continuity, there exists $\overline{q}$ such that for $q_R^1 \geq \overline{q}$, $(0, 0)$ dominates $(1, 1)$.

Finally, using Lemma 2, we know that $(0, 0)$ dominates any other (p_1, p_0) such that $\overline{q}_R^2, \underline{q}_R^2 \geq q_L^2$. Because $(1, 1)$ dominates any (p_1, p_0) with $\overline{q}_R^2 \geq q_L^2 \geq \underline{q}_R^2$, $(0, 0)$ also dominates all these points, showing the result.

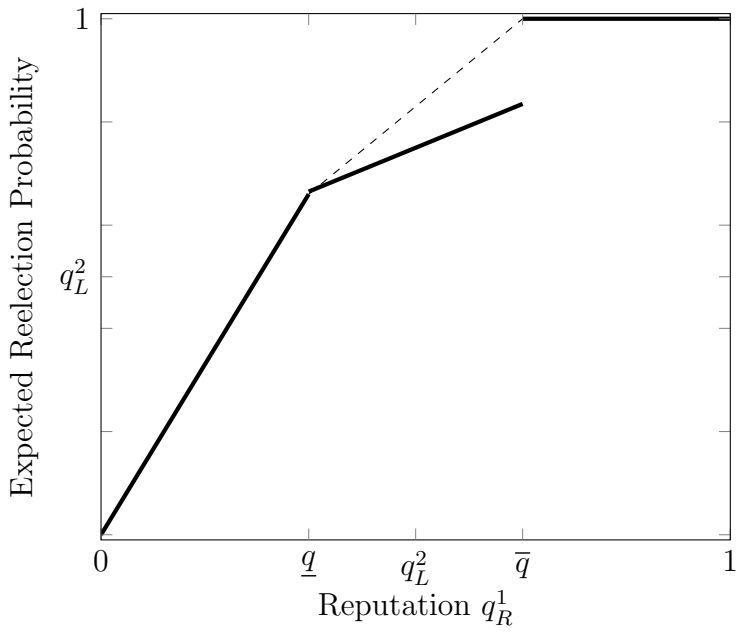
□

Proposition 4. *Given $\underline{q}, \overline{q}$, there exist thresholds $\underline{\underline{q}} < \underline{q} < \overline{q} < \overline{\overline{q}}$ such that*

- *For $q_R^0 \leq \underline{\underline{q}}$, partisanship π^* is decreasing from $1/2$ at q_R^0 to 0 at $\underline{\underline{q}}$.*
- *There exists $q_\dagger \in [\underline{\underline{q}}, \overline{q} < \overline{\overline{q}}]$ such that for all $q_R^0 \geq q_\dagger$, $\pi^* < 1$.*
- *For $q_R^0 \geq \overline{\overline{q}}$, $\pi^* = 1$.*

Proof. We graph the value function of R, $V_R(q_R^1)$, as a function of q_R^1 in the figure below.

Figure A.2: Value Function of R As Function of q_R^1



The concavification of the value function is achievable for low q_R^1 as a lottery between the beliefs 0 and $\underline{q}$, achieved via $(p_1, p_0) = (1, p_0^*)$ for p_0^* solving $\frac{q_R^0}{q_R^0 + (1-q_R^0)(1-\lambda)p_0^*} = \underline{q}$. p_0^* increases in q_R^0 until some $\underline{\underline{q}}$, when it is equal to 1. By a similar argument from before, partisanship $\pi^* = 1 - \frac{1+p_0^*}{2}$ is then decreasing from 1/2 at 0 to 0 at $\underline{\underline{q}}$. An identical argument to proposition 1 shows that above some threshold $\overline{\overline{q}}$, the optimal agenda is given by $(p_1, p_0) = (0, 0)$.

Let $q_\dagger$ solve $\underline{q} = \frac{(1-\lambda)q_R^0}{1-\lambda q_R^0}$. Note that for each (p_1, p_0), we have a line segment connecting $(\underline{q}_R^1, V_R(\underline{q}_R^1))$ to $(\overline{q}_R^1, V_R(\overline{q}_R^1))$. Moreover, for $q_R^0 \in [q_\dagger, \overline{\overline{q}}]$, the expected value of $(p_1, p_0) = (0, 0)$ is the segment connecting the value function at $\underline{q}$ to the value function at 1 (i.e. an extension of the value function on $[\underline{q}, \overline{q}]$).

I claim that for all $q_R^0 \in (q_\dagger, \overline{\overline{q}})$, $\pi^* < 1$, i.e. $(p_1, p_0) \neq (0, 0)$. To see this, note that by slightly increasing both p_1 and p_0, $(\underline{q}_R^1, V_R(\underline{q}_R^1))$ decreases linearly. However, $(\overline{q}_R^1, V_R(\overline{q}_R^1))$ slides to the left without decreasing, meaning the line segment steepens and, at the prior q_R^0, generates an improvement on $(p_1, p_0) = (0, 0)$. The expressions for points in between are generally dependent on λ and q_L^2.

□

A.2 Voter Preference Microfoundation

I address a microfoundation for second period voter utility, providing conditions under which, regardless of a voter's ideological preferences she retains an incumbent if and only if the incumbent's ability is sufficiently high.

Consider two dimensions of utility which are functions of ability. The first is a managerial component; for politician R, the voter's utility from this component simply a_R. The second dimension is an ideological component, weighted by some $\delta > 0$. Given that the incumbent pursues a partisan policy π, the voter has preferences given by $-|\lambda - \pi|$, i.e. the voter's ideal point is given by alignment with the legislature. This loss is experienced only if π actually passes.[38] Voter utility is given by the sum of these two components, as follows:

$$a_R - \delta(\lambda a_R + (1-\lambda)(1-\pi))|\lambda - \pi|$$

I assume that, in the second period, R pursues $\pi = 1$. The voter's utility is given then by:

$$a_R - \delta(\lambda a_R + (1-\lambda)(1-\pi))(1-\lambda),$$

which is increasing in a_R if and only if

$$1 - \delta\lambda(1-\lambda) \geq 0 \iff 1 \geq \delta\lambda(1-\lambda).$$

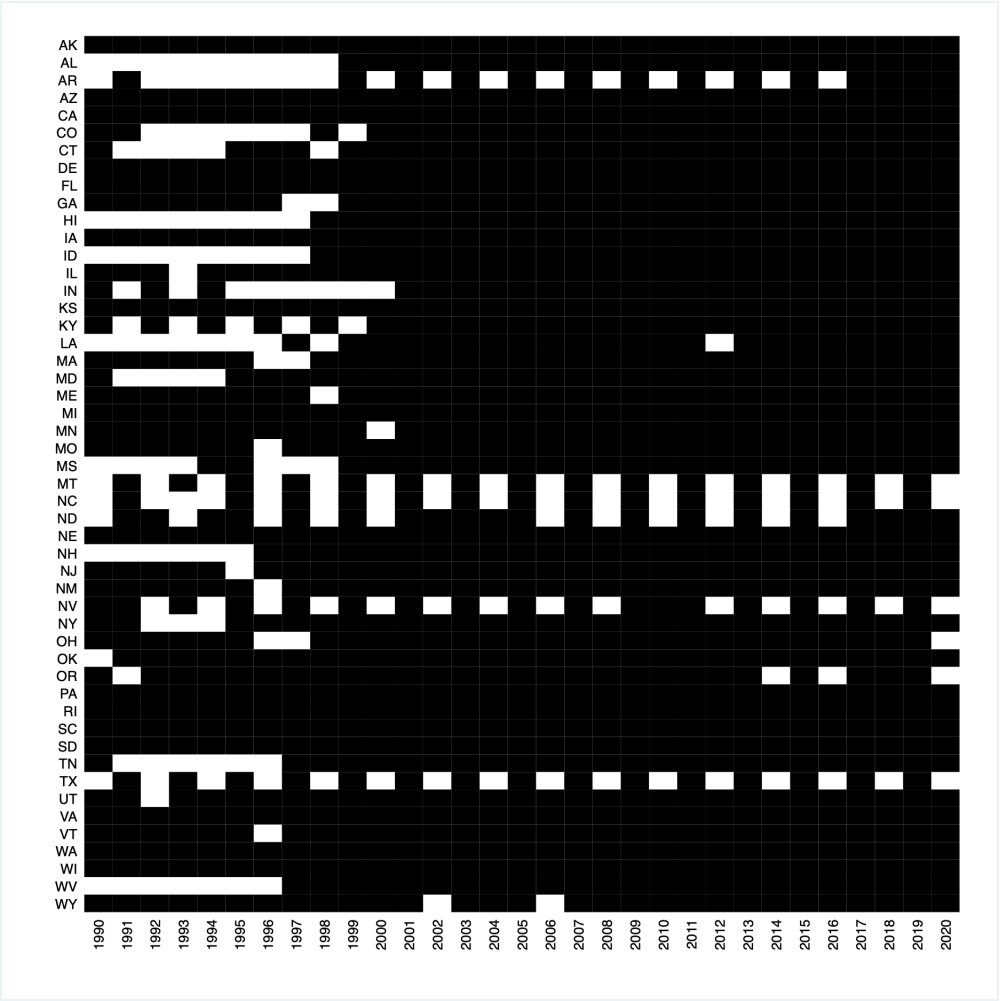
The right hand side is maximized at $\lambda = 1/2$ with value $\frac{\delta}{4}$. This inequality hence holds everywhere for $\delta \leq 4$. If $\delta = 1$ (managerial and ideological components of utility are weighted equally), this always holds. The inequality also always holds in neighborhoods of $\lambda = 0$ and $\lambda = 1$. The intuition is that when λ is low, partisan legislation passes with low probability. Hence, even if the incumbent is skilled (including if she is skilled at passing legislation V would heavily dislike), this unlikeable legislation never passes.

Note that voter utility is a linear function of a_R; hence, when compared to a constant outside option at $t = 2$ (i.e. the utility from replacing R with L, plus any additional valence terms for L), V will choose to re-elect R if and only if q_R^2 exceeds a threshold.

[38] Any outside option whose utility is ≤ 0 upon failure to pass the policy will accentuate the result.

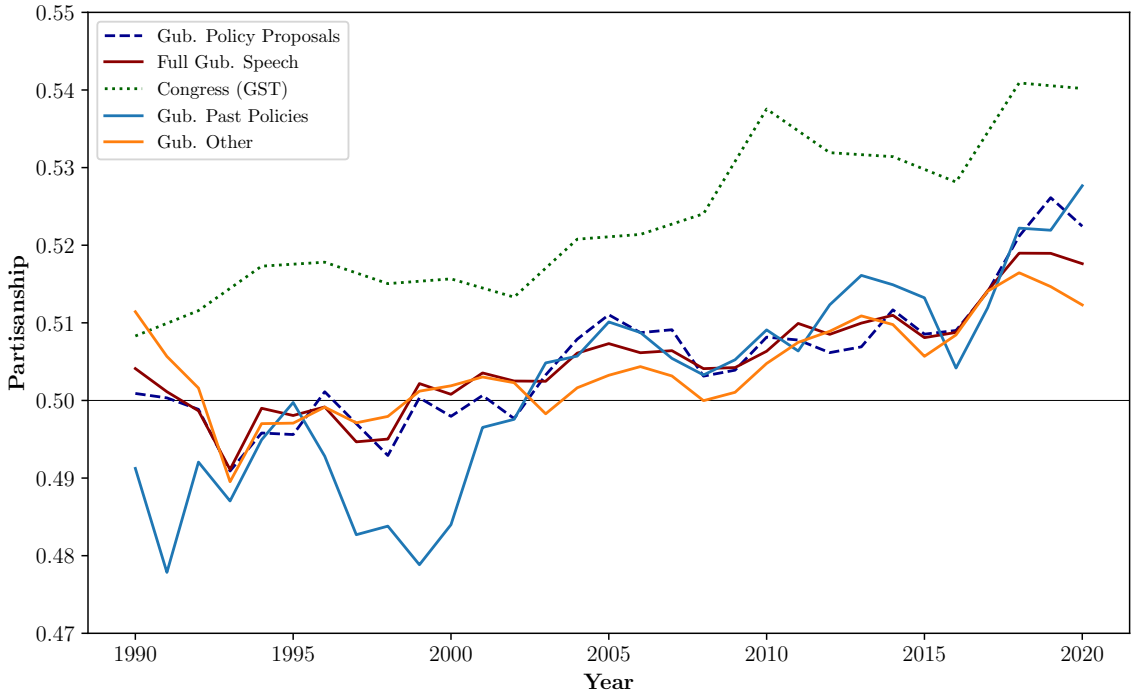
Appendix B Auxiliary Tables and Figures

Figure B.1: Usable Data Coverage by State and Year



Solid black squares indicate availability of usable speech for given state and year. Empty squares indicate lack of speech data for that year. Some states experience periodicity in missing speeches due to biannual delivery of addresses, such as Texas.

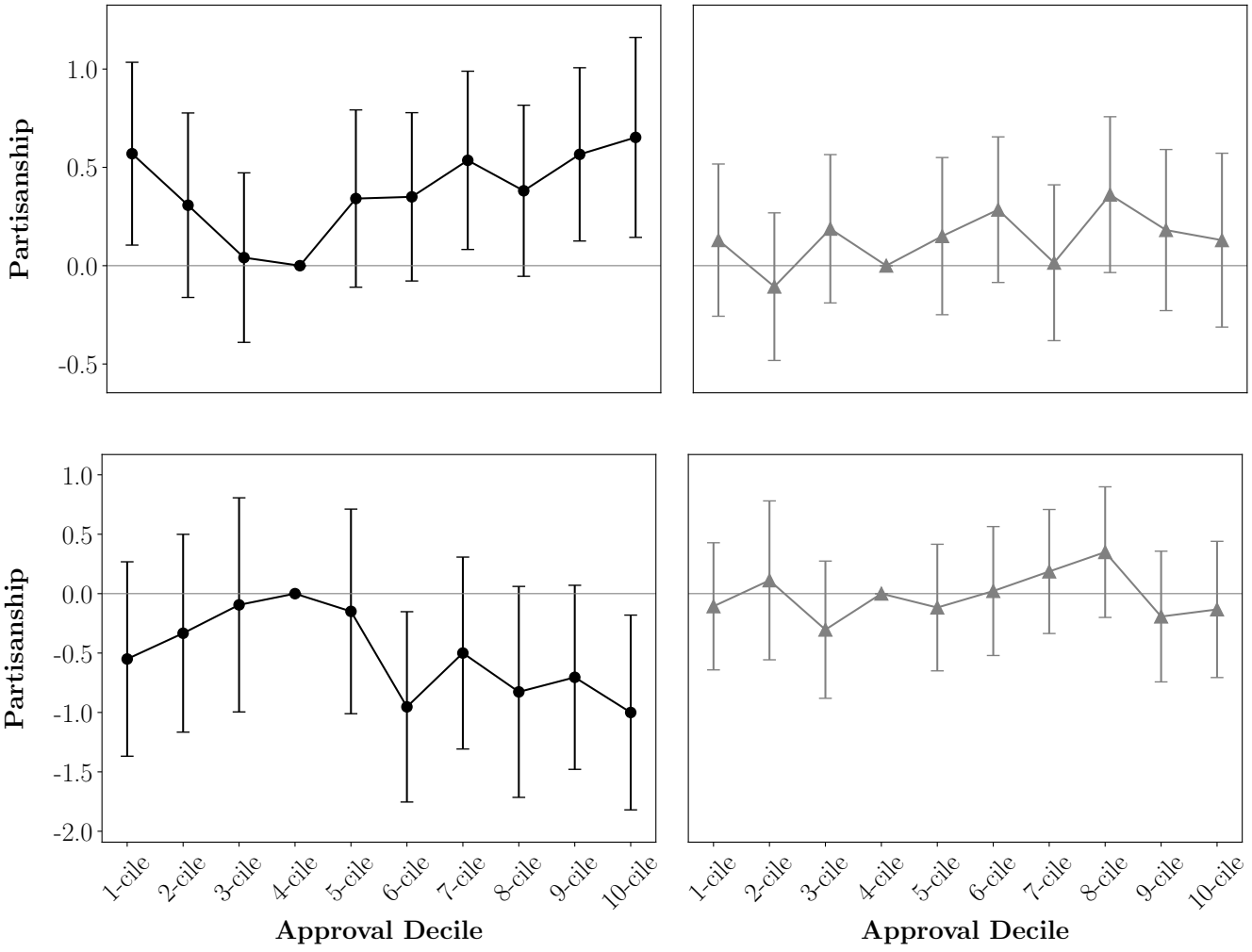
Figure B.2: Partisanship of U.S. Gubernatorial Speeches, Full Speech, Policy Proposals, Past Policies, and Other Speech, vs. Congressional Record: 1990-2020



Partisanship of gubernatorial speech calculated using Gentzkow, Shapiro, and Taddy (2019) leave-out estimator. "Gub. Policy Proposals" computes estimator for gubernatorial speech snippets coded as discussing policy proposals on corpus of U.S. governors' speech from 1990-2020. "Full Gub. Speech" computes estimator for all gubernatorial speech in given year. "Gub. Past Policies" computes estimator for snippets coded as discussing policies but not policy proposals. "Gub. Other" computes estimator for snippets coded as not discussing policies. "Congress (GST)" series is partisanship of Congressional speech using leave-out estimator, replicating Figure 2A of Gentzkow, Shapiro, and Taddy (2019).

Figure B.3: Unadjusted Levels of Partisanship for Reelectable and Lame Duck Governors by Approval Decile, Aligned vs. Unaligned Legislatures, 1990-2020

(a) Reelectable Govs., Unaligned Legislatures (b) Reelectable Govs., Aligned Legislatures



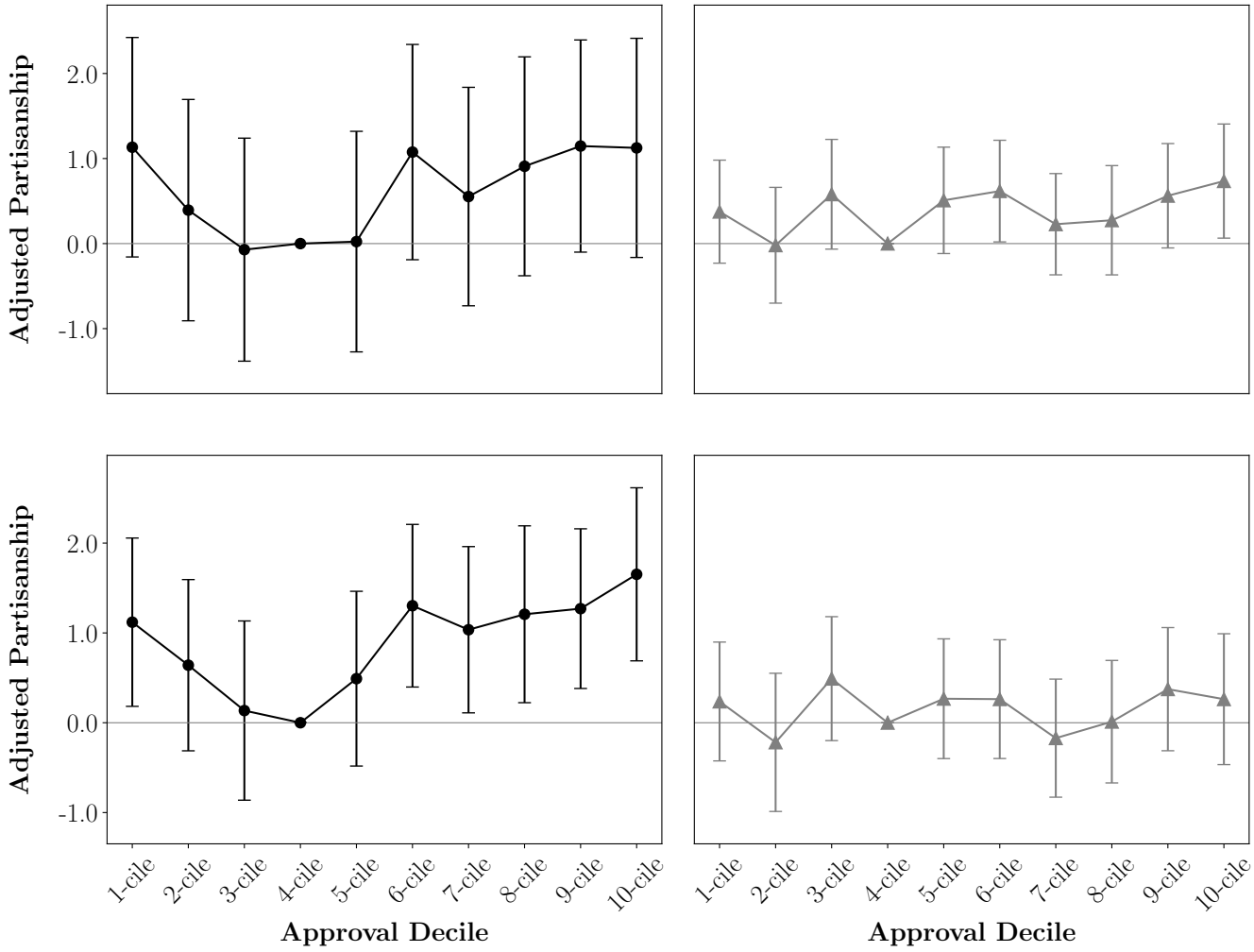
(c) Lame Ducks, Unaligned Legislatures (d) Lame Ducks, Aligned Legislatures

Dependent variable measures partisanship of U.S. governor State of the State speeches using leave-out estimator of Gentzkow, Shapiro, and Taddy (2019), as calculated in equation (3), normalized by sample mean and standard deviation. Horizontal axis plots approval decile of gubernatorial approval by state, calculated using previous year's fourth quarter approval from Singer (2023) after first year in office, with first quarter approval utilized for first year in office. Panels (a) and (b) plot levels of partisanship for reelectable governors. Panel (a) plots $\alpha_k + \beta_k$ coefficients from equation (5), measuring level of partisanship for reelectable governors with unaligned legislatures in decile k relative to fourth decile. Panel (b) plots $\alpha_k + \beta_k + \gamma_k + \delta_k$ coefficients from equation (5), measuring level of partisanship for reelectable governors with unaligned legislatures in decile k relative to fourth decile. Panels (c) and (d) plot levels of partisanship for lame duck governors. Panel (c) plots α_k coefficients from equation (5), measuring level of partisanship for lame ducks with unaligned legislatures in decile k relative to fourth decile. Panel (d) plots $\alpha_k + \gamma_k$ coefficients from equation (5), measuring level of partisanship for lame ducks with unaligned legislatures in decile k relative to fourth decile.

Figure B.4: Partisanship of Reelectable Governors by Approval Decile, Adjusting for Lame Duck Behavior, Varying Definitions of Legislative Alignment, 1990-2020

(a) < 45% Legislators of Gov. Party

(b) ≥ 45% Legislators of Gov. Party

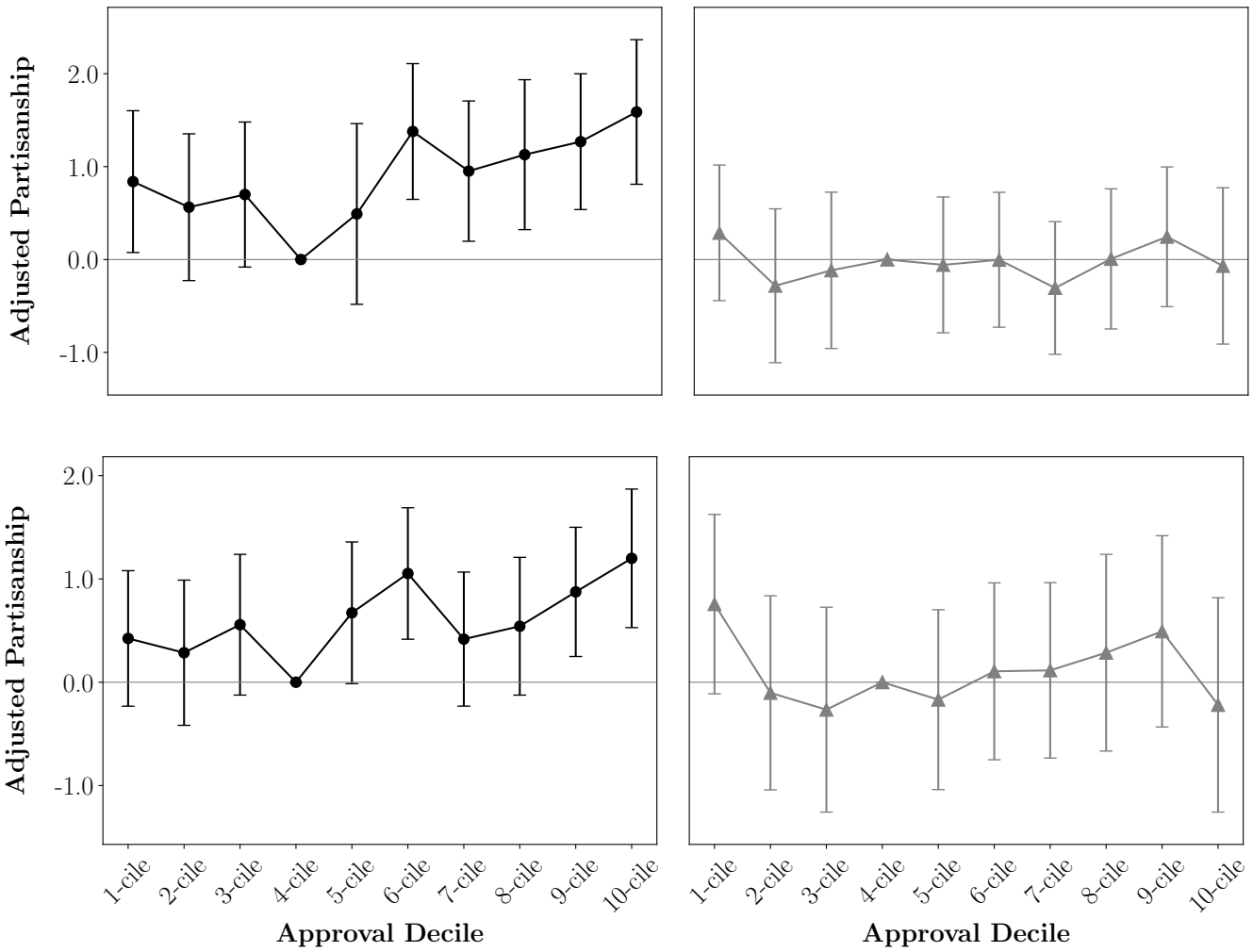


(c) < 50% Legislators of Gov. Party

(d) ≥ 50% Legislators of Gov. Party

(e) < 55% Legislators of Gov. Party

(f) ≥ 55% Legislators of Gov. Party



(g) < 60% Legislators of Gov. Party

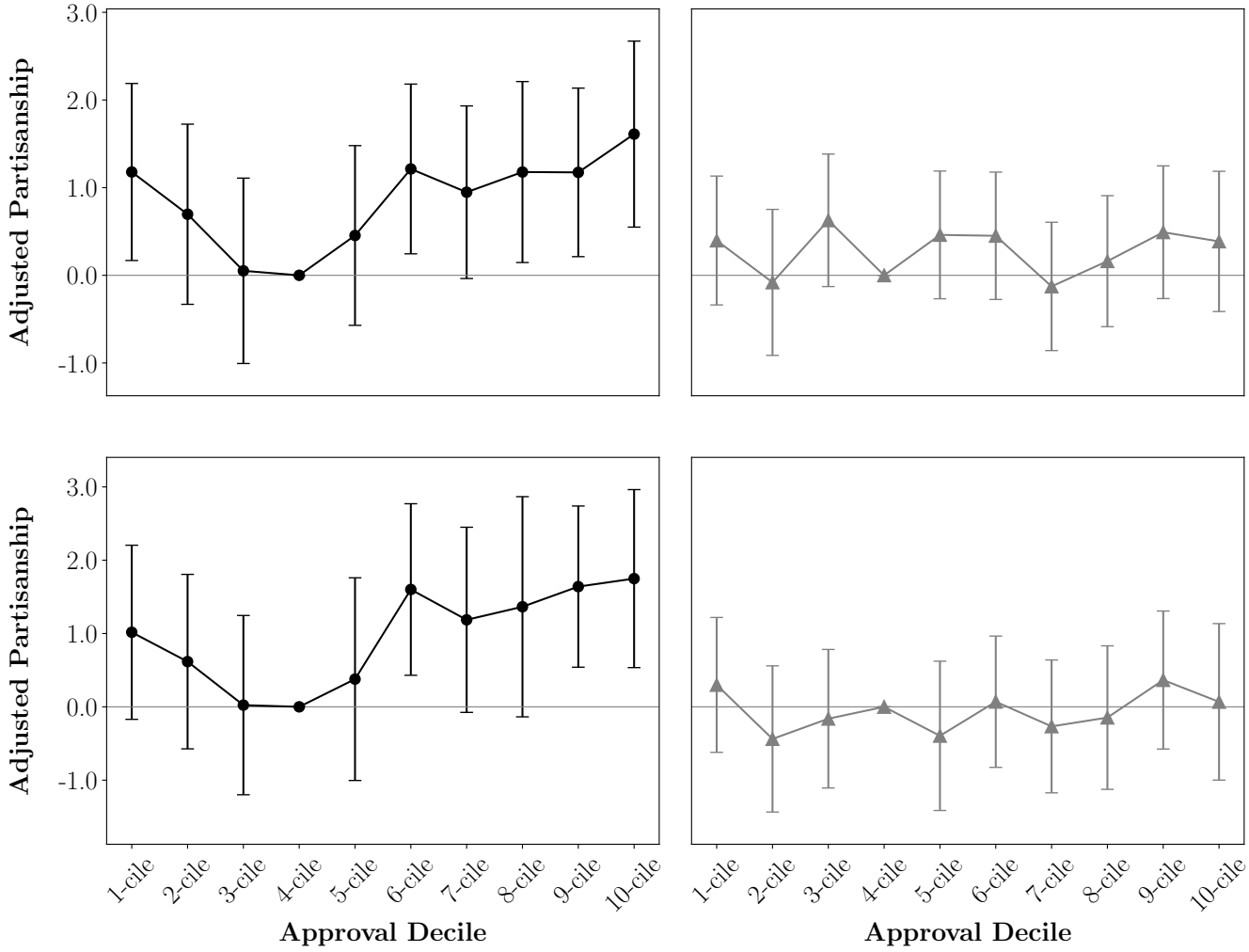
(h) ≥ 60% Legislators of Gov. Party

Dependent variable measures partisanship of U.S. governor State of the State speeches using leave-out estimator of Gentzkow, Shapiro, and Taddy (2019), as calculated in equation (3), normalized by sample mean and standard deviation. Horizontal axis plots approval decile of gubernatorial approval by state, calculated using previous year's fourth quarter approval from Singer (2023) after first year in office, with first quarter approval utilized for first year in office. Black circles plots β_k coefficients from equation (5), measuring level of partisanship for reelectable governors with unaligned legislatures in decile k, adjusting for behavior of lame ducks, relative to fourth decile. Gray triangles plot $\beta_k + \delta_k$, measuring level of partisanship for reelectable governors with aligned legislatures in decile k, adjusting for behavior of lame ducks, relative to fourth decile. Bands around coefficient estimates display 95% confidence intervals. Legislative alignment defined as whether more than x% of legislators match governor's party. In panels (a) and (b), x = 45%; in (c) and (d), x = 50%; in (e) and (f), x = 55%, in (g) and (h), x = 60%. For panels (a) and (b), N: 1108; num. states: 48; within R^2: 0.06. For panels (c) and (d), N: 1108; num. states: 48; within R^2: 0.06. For panels (e) and (f), N: 1108; num. states: 48; within R^2: 0.07. For panels (e) and (f), N: 1108; num. states: 48; within R^2: 0.07.

Figure B.5: Partisanship of Reelectable Governors by Approval Decile, Adjusting for Lame Duck Behavior, Variation with Electoral Cycle, 1990-2020

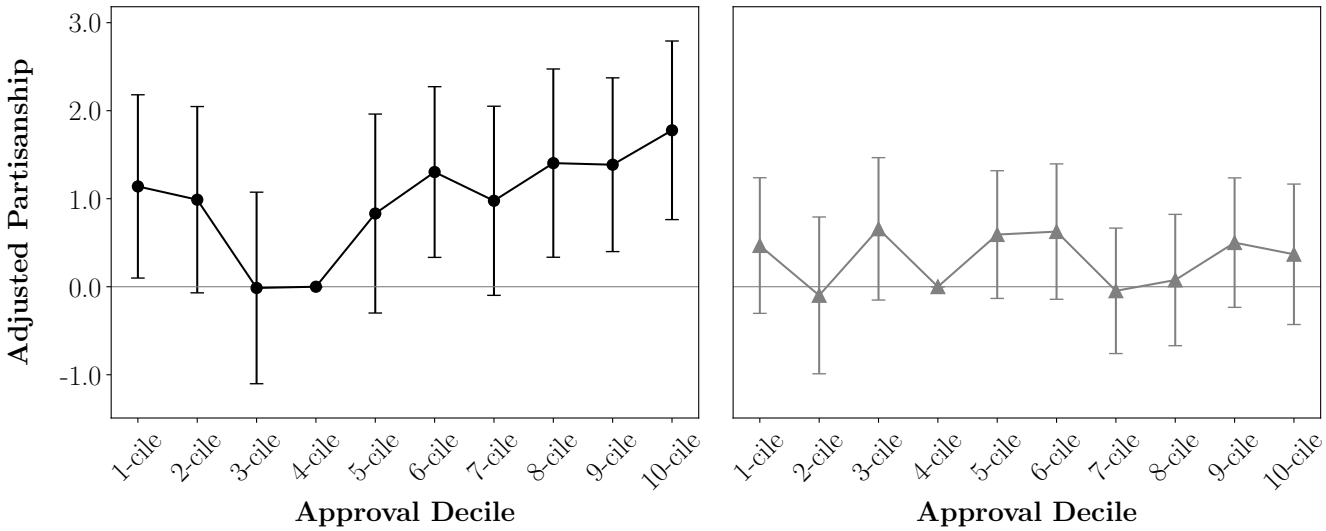
(a) Non-Election Years, Unaligned Leg.

(b) Non-Election Years, Aligned Leg.



(c) Election Years Only, Unaligned Leg.

(d) Election Years Only, Aligned Leg.



(e) No Lame Duck Last Year, Unaligned Leg. (f) No Lame Duck Last Year, Aligned Leg.

Dependent variable measures partisanship of U.S. governor State of the State speeches using leave-out estimator of Gentzkow, Shapiro, and Taddy (2019), as calculated in equation (3), normalized by sample mean and standard deviation. Horizontal axis plots approval decile of gubernatorial approval by state, calculated using previous year's fourth quarter approval from Singer (2023) after first year in office, with first quarter approval utilized for first year in office. Black circles plots β_k coefficients from equation (5), measuring level of partisanship for reelectable governors with unaligned legislatures in decile k, adjusting for behavior of lame ducks, relative to fourth decile. Gray triangles plot $\beta_k + \delta_k$, measuring level of partisanship for reelectable governors with aligned legislatures in decile k, adjusting for behavior of lame ducks, relative to fourth decile. Bands around coefficient estimates display 95% confidence intervals. Legislative alignment defined as whether more than half of state legislators. Panels (a) and (b) drop datapoints where reelectable governors face gubernatorial elections later that year. Panels (c) and (d) drops all datapoints for reelectable governors except governors facing gubernatorial elections later that year. Panels (e) and (f) drop datapoints for lame ducks in their last full year in office. For panels (a) and (b), N: 910. Num. States: 48. Within R^2: 0.07. For panels (c) and (d), N: 517; num. states: 46; within R^2: 0.11. For panels (e) and (f), N: 1028; num. states: 48; within R^2: 0.06.

Table B.1: Most Republican and Most Democratic Phrases, 1990-2020

(a) 1990-1994

Republican	Democratic
properti tax	state govern
gener assembl	long term
sale tax	commun colleg
incom tax	health insur
amend section	human resourc
public school	welfar recipi
act appropri	clean air
tax relief	child care
school district	econom develop
tax reduct	state employe

(b) 1995-1999

Republican	Democratic
properti tax	class size
school district	high school
tax relief	child care
million dollar	public safeti
cut tax	perman fund
charter school	tax credit
budget recommend	transport system
econom develop	privat sector
look forward	year thi
thi budget	econom growth

(c) 2000-2004

Republican	Democratic
charter school	health care
incom tax	prescript drug
high tech	state agenc
mental health	properti tax
center excel	minimum wage
tax cut	domest violenc
million state	school construct
long term	billion dollar
tax relief	health insur
low incom	educ lotteri

(d) 2005-2009

Republican	Democratic
incom tax	health care
tax relief	thi budget
charter school	health insur
million dollar	new job
math scienc	feder govern
tax rate	clean energi
gener fund	energi effici
qualiti life	pre k
properti tax	creat job
budget provid	afford health

(e) 2010-2014

Republican	Democratic
incom tax	health care
econom develop	sale tax
charter school	tax credit
state govern	creat job
budget recommend	minimum wage
school district	earli childhood
feder govern	mental health
job creator	21st centuri
high school	gener assembl
gener fund	thi budget

(f) 2015-2020

Republican	Democratic
incom tax	clean energi
tax relief	afford hous
budget recommend	health care
high school	minimum wage
law enforc	middl class
tax cut	renew energi
properti tax	climat chang
task forc	child care
pay rais	let pass
depart correct	work togeth

Table lists top 10 most Democratic and top 10 most Republican bigrams, in descending order, for each time period. Partisanship of phrase measured using equation (4), which describes informational loss in inferring governor's party based upon removal of bigram, as in Gentzkow, Shapiro, and Taddy (2019) Table 1. Table removes certain procedural phrases in calculation of partisanship of phrase use.

Table B.2: Partisanship by Approval Decile, Legislative Alignment, and Reelection Eligibility, 1990-2020

		Reelect ×	Leg. Align ×	Reelect × Leg. Align ×
Appr. 1-cile	-0.550	1.120**	0.443	-0.439
	(0.417)	(0.478)	(0.497)	(0.310)
Appr. 2-cile	-0.333	0.641	0.445	-0.414
	(0.424)	(0.486)	(0.545)	(0.309)
Appr. 3-cile	-0.095	0.136	-0.209	0.147
	(0.459)	(0.509)	(0.543)	(0.294)
Appr. 5-cile	-0.149	0.491	0.032	-0.191
	(0.439)	(0.496)	(0.516)	(0.309)
Appr. 6-cile	-0.953**	1.303***	0.975**	-0.065
	(0.408)	(0.461)	(0.496)	(0.291)
Appr. 7-cile	-0.500	1.036**	0.686	-0.521*
	(0.412)	(0.472)	(0.495)	(0.310)
Appr. 8-cile	-0.827*	1.208**	1.176**	-0.020
	(0.452)	(0.502)	(0.538)	(0.305)
Appr. 9-cile	-0.704*	1.270***	0.512	-0.385
	(0.395)	(0.453)	(0.490)	(0.309)
Appr. 10-cile	-1.000**	1.653***	0.867	-0.523*
	(0.418)	(0.491)	(0.513)	(0.345)
Constant	0.325	-0.832**	-0.216	0.367*
	(0.218)	(0.378)	(0.391)	(0.218)
N		1108		
Num. States		48		
Year F.E.		Yes		
State F.E.		Yes		
R^2 Within		0.06		

Dependent variable measures partisanship of U.S. governor State of the State speeches using leave-out estimator of Gentzkow, Shapiro, and Taddy (2019), as calculated in equation (3), normalized by sample mean and standard deviation. Approval decile represents decile of approval rating by state, calculated using previous year's fourth quarter approval from Singer (2023) after first year in office, with first quarter approval utilized for first year in office. First column of coefficients measures baseline levels of partisanship by approval decile for lame duck governors, i.e. α_k terms in equation (5), with constant corresponding to omitted category of fourth decile. Names of second through fourth columns represent variables being interacted with approval decile. Second column of coefficients measures baseline partisanship of reelectable governors relative to lame ducks by approval decile, i.e. β_k coefficients. Third column measures level of partisanship for legislatively aligned lame duck governors relative to unaligned, i.e. γ_k coefficients. Fourth column measures level of partisanship for reelectable governors with aligned legislatures relative to unaligned legislatures, i.e. δ_k coefficients. Third column compares partisanship of reelectable governors in gubernatorial election years to all lame duck governors. Fourth column compares partisanship of reelectable governors to all lame duck governors except those in their last year in office. Data for Idaho (no approval data) and Nebraska (does not recognize political parties in legislature) omitted. Standard errors in parentheses. $^{*}p < 0.1, ^{**}p < 0.05, ^{***}p < 0.01$.

Table B.3: Swing States, Republican States, and Democratic States

Swing States	**Republican States**	**Democratic States**
AK	AL	CO
AR	AZ	DE
CA	FL	HI
CT	IA	KY
GA	ID	MD
IL	MA	MO
IN	MI	NC
KS	MS	NY
LA	ND	OR
ME	NE	PA
MN	NM	VA
MT	NV	VT
NH	OH	WA
NJ	SC	WV
OK	SD	
RI	TX	
TN	UT	
WY	WI	

Appendix C Hand-Coding Guide

Below is the guide provided to research assistants for the hand-coding task.

General remark. Remember that the goal of this task is to identify (past or current) policy proposals among gubernatorial speech snippets — as well as risky policy proposals —that will be used to train a large-language-model. As a guiding principle when coding, it may be useful to ask yourself: is the language in this snippet relevant to identifying policy proposals, past/current proposals, or risky policy proposals?

For example, if a governor spends a lot of time in a snippet on rhetoric, but then at the very end mentions a policy she passed, we wouldn't code that as "yes, this is about as policy" even though a policy may be mentioned by name at the end. This is because the language of that snippet, by and large, does not talk about past policy proposals.

If a governor is clearly reflecting on the content of a policy proposal —but the policy is not mentioned by name —this would also be coded as "referring to a policy proposal." The reason is that we are trying to figure out how much time governors spend in their speeches discussing policy proposals (as opposed to other things). So the relevancy of snippets to this category — or any of the other categories —should be assessed using these sorts of heuristics.

Coding Guidelines. The outline below details each of the main categories to be coded, as well as examples ("easy" and "hard") of each of the codings.

1. "Policy." Coded as "1" if the snippet discusses the enactment of a state-level policy (either passed by the governor, state government, or referendum) and "0" if it does not. A policy discussion is a reference to a specific act of legislation or law, a concrete proposal to increase or decrease funding to a certain cause, other legal orders proposed by the government to take certain concrete actions, and discussions of details of any of the above.

    - Example of 0 (easy): "I will continue to speak out against those who promote prejudice. I know you will too. And I will tell you this: a handful of people who may want to burn a cross are no match for 10,000 Idahoans who marched to support the Table Rock Cross." (ID, 2000).
    - Example of 0 (hard): "It is simply not pono for our families to be living in cars, people to be sleeping in the doorways of businesses downtown or on picnic tables

in our parks. There is no one silver bullet to solve the problems of homelessness and affordable housing, but there are many good ideas that can and should be enacted." (HI, 2006). Discusses an issue and hints at the concept of a solution, but does not concretely address a policy.

- Example of 0 (hard): "The budget is balanced but great risks and uncertainties lie ahead. The federal government, the courts or changes in the economy all could cost us billions and drive a hole in the budget. The ultimate costs of expanding our health care system under the Affordable Care Act are unknown. Ignoring such known unknowns would be folly, just as it would be to not pay down our wall of debt. That is how we plunged into a decade of deficits." (CA, 2013). Does not actually discuss a governor or state-led policy initiative, despite referring to the ACA (a federal initiative).
- Example of 1 (easy): "The Reform Albany Act will have as its centerpiece an independent ethics commission that will have jurisdiction over State government. This commission will have the power to enforce campaign finance and end pay-to-play and bring jurisdiction and oversight to so-called good government groups, who hide their donors behind walls of sanctimony." (NY, 2010)
- Example of 1 (hard): "We were asked to meet yet another list of requirements. The federal government objects not on a scientific basis, but upon a vaguely defined legal risk analysis. This is not just about semantics. It is about achieving wolf delisting on rational terms that work for Wyoming. I do not care what we call them as long as we can manage them. The new demands from the federal government go far beyond the word predator and include changing how a pack is defined and even questioning whether the national parks will assume responsibility for half of the 15 packs it plans for Wyoming." (WY, 2004). Refers to federal policy/definitions, which is confusing, but also details of how the state will implement such a policy out in the context of their own state.

2. "Proposal/Past." Only applies if "policy" coded as "1." Coded as "1" if the snippet refers to a policy that has just put into place or will be put into place in the future. Coded as "0" otherwise — in particular, if a governor is reflecting on the effects of a policy in the past. Coded as "0.5" if it contains substantive elements of both. Continuing a preexisting policy implemented from the past without any substantive changes also does not constitute a (future) policy proposal —this would be coded as a "0."

   - Example of 0 (easy): "Clearly we are doing things right. We are making progress.

But the job numbers are only part of the story. In addition to making it easier for businesses to create jobs, we have also invested in public works projects. In doing so, we improved our public infrastructure, made it more attractive for businesses to relocate or stay here, and directly created even more jobs." (OR, 2006). Clearly refers to a past policy action but not a future action.

- Example of 0 (hard): "... We have budgeted more than 260 million for higher ed capital. That funds new science facilities at Jackson State Community College and the University of Tennessee. It also includes nearly 25 million for improvements to our colleges of applied technology all across the state, and it includes the funds to complete the long awaited fine arts building at East Tennessee State University. The reason we continue to make these investments in education is we want Tennesseans to have the education, training and skills necessary to have a good paying, high-quality job..." (TN, 2015). Suggests that we "have budgeted" (not will budget) money, and that this process will continue, but does not propose something inherently novel.
- Example of 1 (easy): "By reducing our dependence on foreign energy sources we can not only stop sending our energy dollars to unstable parts of the world, but we can become a world leader in clean energy technologies, from wind and solar power to geothermal and fuel cells...." (NY, 2004). References clear future policy action (reducing dependence on foreign energy source.)
- Example of 1 (hard): "We need a new, more dynamic, economic development strategy. One that can leverage the resources of our business sector, as well as higher education and not for profits. The Delaware Economic Development Office needs to be at the forefront of moving Delaware into the 21st century economy. So my first act as governor was to find a way to energize our economic development efforts. We are going to do that by bringing private sector involvement into DEDO." (DE, 2017). Reflects on a past action, but lays out a policy for the coming year (private sector involvement).
- Example of 0.5: "Some said that Louisiana could not change its stripes and make a new start... but we did.And now... after our recent successes in ethics reform and tax reform... we must take the next step forward... an overhaul of our workforce development system." (LA, 2008). Second sentence reflects on past risky policies, and then talks about workforce development.