

Are Voters' Preferences Being Ignored in Governor's Agendas?

Daniel M. Butler*

Benjamin S. Noble[†]

Abstract

What are the consequences of nationalization and polarization for dyadic representation? Although some contend that these forces weaken accountability by enabling partisan malfeasance, we argue they improve representation by solving an information problem for representatives and voters. Under these conditions, elected officials have a better understanding of voter preferences and voters can infer politicians' likely positions, improving correspondence. To support our theory, we measure the partisanship of gubernatorial position-taking in nearly 2,500 State of the State Addresses (1962–2023). We fine-tune BERT models to generate a predicted probability of the partisanship of a held-out speech using other contemporaneous addresses as training data. When a governor “sounds like” her co-partisans, the model labels her speech as more partisan. This predicted probability provides a dynamic, time-varying measure of gubernatorial partisan position-taking. We show governors have polarized, but these changes increasingly correlate with constituency partisanship. Governors reflect, rather than roll, their voters.

*Professor, Department of Political Science, Washington University in St. Louis.

[†]Assistant Professor, Department of Political Science, University of California, San Diego.
benjamin noble.org. b2noble@ucsd.edu.

Theories of dyadic representation focus on the link between constituency preferences and political action. Under this normative conception of democracy, an ideal delegate should “reflect purposively the preferences of his constituents” (McCrone and Kuklinski 1979, 278). Although imperfect and conditional, scholars have repeatedly found evidence of this relationship between representatives and the represented (e.g., Budge and Hofferbert 1990; Grimmer 2013; Miller and Stokes 1963; Tausanovitch and Warshaw 2013). However, these studies focus on a single cross-sectional snapshot. Even if we know this dyadic relationship exists, we know less about its evolution over time—especially as American politics has become increasingly nationalized and polarized. We ask whether these conditions promote or degrade the quality of dyadic representation.

On the one hand, increasing nationalization and polarization might weaken the congruence between citizens and politicians. Today, representatives face bifurcated constituencies that are organized around salient national cleavages (Abramowitz 2018; Mason 2018). The political extremity of the party faithful limits the degree to which pull from the median voter can produce moderate outcomes (Kirkland 2014). Consider a governor choosing between the median voter’s position and that of her party’s median. Her “incentives to toe the national party line are likely to be stronger as voters prove less attentive to state-level differences” (Pierson and Schickler 2020, 47). Indeed, some argue that partisan incentives are so insulating that politicians can pursue partisan priorities contrary to constituents’ underlying preferences for moderation and democratic fair play (Grumbach 2022; Hertel-Fernandez 2019).

On the other hand, as we argue, nationalization and polarization might *improve* dyadic representation. Building on theories of information and preference homogeneity (e.g., Bailey and Brady 1998; Gerber and Lewis 2004; Harden and Carsey 2012), we theorize that nationalization and polarization solve an information problem for both representatives and the represented. Even the ideal delegate needs information about her constituents’ preferences to take an aligned position or cast a congruent vote (Butler and

Nickerson 2011; McCrone and Kuklinski 1979). Without information, an ideal delegate will be forced to rely on (potentially inaccurate) assumptions (Broockman and Skovron 2018), co-partisan cues (Zelizer 2019), or party positions. Similarly, theories of promissory representation and responsible party government require that voters have some knowledge about the policies representatives are likely to pursue (Mansbridge 2003; Schattschneider 1942).

Nationalization and polarization can solve informational problems by providing consistent and clear information to both constituents and politicians. As the two parties have polarized, otherwise inattentive voters are better able to infer candidates' positions and ideological leanings without engaging in costly information acquisition (Goggin, Henderson and Theodoridis 2020; Pierce and Lau 2019). Similarly, when constituents are nationalized (Hopkins 2018) and sorted (Levendusky 2009), they provide consistent cues to politicians about their preferences (McCrone and Kuklinski 1979). Politicians can leverage easily accessible information, such as attitudes toward the president (Jacobson 2015, 2019), to infer a broad range of constituent opinions and take aligned positions.

To adjudicate between these competing perspectives, we analyze the (changing) correspondence between the partisanship of governors' position-taking with (i) governors' party identification and (ii) their states' presidential vote share. We focus on the U.S. states for three reasons. First, gridlock at the federal level has devolved policymaking to the states (Grumbach 2022). Second, informational problems are more acute given the decline of local media and shift toward national news (Darr, Hitt and Dunaway 2018; Hopkins 2018; Martin and McCrain 2019). Third, cross-sectional and over-time variation provide rich empirical leverage to investigate these trends. To measure the partisanship of gubernatorial position-taking, we focus on annual State of the State addresses delivered between 1962–2023. We fine-tune a series of BERT models to predict the party label of each governor's speech using every other governor's speech (in that, and the previous two years) as training data. Although we know each governor's true party, the prediction

can tell us “how Republican” a given speech is compared to all other contemporaneous speeches (cf. Peterson and Spirling 2018). Intuitively, the more a governor “sounds like” her co-partisans and less like her opposition, the more extreme the prediction. To the extent that polarization and nationalization improve representation, we should see an increasing correlation between a state’s presidential vote and the prediction over time. The more extreme (moderate) a state’s presidential vote share, the more confident (uncertain) the prediction. To the extent that these forces enable the evasion of constituency preferences in favor of partisan proclivities, we should observe an increase in the correlation between gubernatorial party and the extremity of the prediction.

Our analysis reveals that dyadic representation is stronger since the increase in nationalization and polarization of the 1990s; constituency partisanship, as embodied by presidential vote share, increasingly predicts the partisanship of governors’ position-taking. Although a governors’ party identity has always been associated with position-taking, that influence has not changed over our time series. By contrast, a state’s presidential vote share—which was uncorrelated with position-taking prior to the 1990s—has become a strong predictor of partisan position-taking in the modern era. We conclude that governors’ positions are *more reflective* of constituency partisanship now than in the past. Even if governors’ positions have become more partisan and polarized over time, this trend reflects, rather than conflicts with, dyadic representation (cf. Ahler and Broockman 2018). That is to say, observed increases in state partisanship are real, but they are consistent with what voters want. Although nationalization and polarization have many negative implications, these same forces inject more information into the political system. Our results are consistent with the idea that actors use that information to increase the level of dyadic representation.

Nationalization, Partisanship, and State Policy Agendas

The public positions that elected officials take are key to policy outcomes. Before a policy is passed, representatives promote their position on that issue in campaign materials, public speeches, and constituent communications. And these positions are not cheap-talk. Politicians and parties, across a number of democratic countries, follow through on their promises (Budge and Hofferbert 1990; Sulkin 2009; Thomson et al. 2017). In taking positions, politicians allocate attention to problems, set the agenda, and ultimately translate opinion to outcome (Arnold 1990; Jones and Baumgartner 2005; Cox and McCubbins 1993, 2005). In democratic theory, policies and—as a pre-cursor—positions, should reflect those held by the constituency. Given the importance of position-taking and promise-making—for the electoral connection, agenda-setting, symbolic representation, and policy outcomes—it is crucial to understand what factors affect the correlation between constituency preferences and politicians’ positions.

At the state level, the governor is a key actor shaping the agenda and therefore, her positions are of particular importance. Where rank-and-file members of the state legislature cast an up-or-down vote on a pre-packaged bill, governors, as chief executives, are coalition leaders, selecting from the set of possible issues and structuring alternatives for lawmakers (Arnold 1990). Institutionally, governors’ position-taking can have downstream impacts on state policy outcomes when they focus attention and provide an informational subsidy to busy state legislators (cf. Lorenz 2020). They can also translate positions into policy through unilateral action (Bolton and Thrower 2021) and legislative leadership (e.g., Kousser and Phillips 2012). From a public opinion perspective, governors are better known than state legislators (Rogers 2023; Rosen 2018) and partisan and ideological congruence have strong effects on gubernatorial approval, whereas these relationships are more tenuous for state legislators (Winburn et al. 2024). Thus, governors have strong incentives to ensure their positions align with their electorate in the abstract.

What affects the degree to which governors’ positions align with those of their con-

stituents in reality? In many models of dyadic representation, information is a key factor. On the supply side, when voters have information about politicians' positions, and politicians follow through on their promises, voters can select aligned representatives and sanction those who fail to uphold their pledges (Mansbridge 2003; Schattschneider 1942). On the demand side, "constituencies must instruct their representatives in a clear fashion if delegate behavior is to result" (McCrone and Kuklinski 1979, 281). If constituency opinion is inconsistent or heterogeneous, politicians may defer to the preferences of party actors (Gerber and Lewis 2004; Harden and Carsey 2012). Similarly, if a politician would like to serve as a delegate, she can only do so with information about what her constituents want.

Given this context, there are several ways in which polarization and nationalization could shape the informational environment, and thus, affect the level of representation expressed in governors' positions. To elucidate these competing expectations requires an understanding of how nationalization and polarization have varied across time: it declined in the middle of the twentieth century but began to increase in the 1970s and 1980s (Carson, Sievert and Williamson 2023; Hopkins 2018; Pierson and Schickler 2020). This change occurred over time, but many have identified the 1990s as a key break-point due to the convergence of several trends: the Southern Realignment, competitiveness in congressional elections, New Gingrich, the rise of an ideological activist class, and changes in the media environment (Butler and Miller 2022; Gentzkow, Shapiro and Taddy 2019; Lee 2016; Sinclair 2006; Theriault and Rohde 2011). While these forces were national in scope, "state parties and national-level officials were responding simultaneously to the same changes in the broader political environment" (Hopkins, Schickler and Azizi 2022, 17). Thus, we can think about the pre-1994 period as one of more limited nationalization and polarization; after 1994, the U.S. transitioned to a much more nationalized and polarized environment.

We argue that these changes *improved* dyadic representation in the states by increasing

the predictability and consistency of preferences among both voters and governors. Prior to 1994, voters were poorly sorted and weakly polarized. For example, in 1972, only 26% of Democrats identified as liberal and 42% of Republicans identified as conservative. As of 2020, those percentages represent majorities in each party: 53% and 70% respectively (ANES 2021). Similarly, presidential voting had a much weaker correlation with congressional and state elections than it does today (Carson, Sievert and Williamson 2023; Hopkins 2018; Jacobson 2019). Therefore, a governor serving in the pre-period could learn little about a her voters' preferences over state government actions from easily observable signals like state partisanship or presidential voting patterns. Voters also saw the parties as similar during this period. In 1972, only 46% of voters agreed that there were important differences between the two parties; that figure is 90% today (ANES 2021). Voters selecting a governor in the 1970s could make only weak inferences about her positions from the party label. This dynamic, then, could enable a governor to pursue her own, or her party's, priorities and still win re-election through constituency service and pork-barrel projects. However, as voters and politicians sorted into aligned parties (Fiorina 2016; Levendusky 2009), national forces began to convey significant information about partisanship and preferences on both sides. In particular, attitudes toward the president have become a strong predictor of down-ballot behavior and of voters' positions broadly (Jacobson 2019). Thus, a governor in 2020 in a state where the president's vote share is 25, or 50, or 75 percent will make different inferences about the distribution of a range of preferences in her state; the same may not have been true for a governor observing this information in 1972. Voters' can also make clearer inferences about governors' prospective positions from their party labels and punish those that are out-of-step or too partisan (Carson et al. 2010; Canes-Wrone, Brady and Cogan 2002). If our argument is correct, we expect to see an increasing correlation between a state's presidential vote share and the partisanship of governors' positions (i.e., increasing dyadic representation) in the post-1994 period as compared to the pre-1994 period.

There are reasons to be skeptical of our argument, however. Polarization and nationalization may strengthen the affective link between partisans in the electorate and those in government. Governors may be able to pursue whatever policy agenda they prefer, even those at odds with constituency demand, and still rely on partisan forces to re-elect them. Voters preferences respond to partisan cues (Bullock 2011; Lenz 2012), and legislators appear to enact similarly partisan policies irrespective of their margin of victory (Bafumi and Herron 2010; Lee, Moretti and Butler 2004). Put differently, some expect that whether a Republican governor takes office with 51 or 91 percent of the vote, policy outcomes will be similar and the governor will not moderate based on the underlying distribution of constituency preferences. This effect may be compounded when officials are more interested in learning about policy ideas within state-party networks rather than across them (Butler et al. 2017). In his analysis of state-level policy outcomes, Grumbach (2022) concludes that “rather than a sea change in public opinion, the major policy changes of the era of state resurgence are the result of increasingly coordinated national networks of activists and organizations that make up the modern Democratic and Republican parties” rather than voter demand. This same pattern could apply to gubernatorial position-taking. If correct, we would expect to see an increasing correlation between a governor’s party identification and the partisanship of governors’ positions (i.e., decreasing dyadic representation) in the post-1990 period as compared to the pre-1990 period.

Finally, it might be the case that governors have avoided pressures to nationalize and polarize. As governors are better known than other state policymakers (Rosen 2018), whose electoral fates are driven by national forces (Jacobson 2019; Rogers 2023), governors may be able to establish a reputation outside of these forces. Additionally, governors could focus on local and state issues that are de-nationalized and de-polarized—such as infrastructure. Other actors, like U.S. Senators who share the same constituency, do not have this luxury in the modern era (e.g., Noble 2024). If this perspective is correct, we would expect to see no change in the relationship between governor’s positions and ei-

ther (i) gubernatorial party or (ii) a state's presidential vote share.

Measuring the Partisanship of Gubernatorial Representation

To assess the state of gubernatorial representation, we focus on State of the State (SOTS) Addresses. The SOTS Address is a major policy speech given by the governor to the legislature either annually or biannually. In form and function, it is similar to the president's State of the Union Address (SOTU), which has long been used by both the White House and scholars as a key indicator of the president's agenda (e.g., Kumar 2007; Light 1999). The policies presidents prioritize in this speech also have downstream consequences for legislative (Lee 2009, e.g.,) and voter (e.g., Cohen 1995) behavior. Here, we apply this same logic to governors' SOTS Addresses. Like presidents, governors use this speech to recap their recent accomplishments and outline their policy agenda for the coming year. More than cheap talk, what governors address in the speech correlates with their ideology (Coffey 2005), and that ideology has a large influence on subsequent state policy liberalism (Warner 2023). Further, what governors propose in their SOTS Addresses, especially budgetary items, are often passed by state legislatures (Kousser and Phillips 2012). Like the president's SOTU Address, SOTS Addresses reveal governors' annual agendas while shedding light on how they symbolically and substantively represent their constituents.

Beyond substantive importance, State of the State Addresses provide a methodological advantage as well. As this speech is mandated by most state constitutions (and given regularly by tradition in those where it is not mandated), a governor's choice to speak is not politically motivated. Thus the act of giving the SOTS can be thought of as exogenous to the political environment. In our study, we leverage a corpus of SOTS Addresses collected by Butler and Sutherland (2022), beginning in 1960 and ending in 2016, which

we extend through 2023. Our final analysis corpus contains 2,427 speeches given by 487 governors across all 50 states.¹

Model Prediction as a Measure of Partisan Position-Taking

We build on Peterson and Spirling (2018) and define the predicted probabilities from a partisan classification model as our quantities of interest. As we detail below, we train a set of machine learning models to predict the party label of governor i 's sentences using a set of governor $\neg i$ sentences as training data. This predicted probability provides a sentence-level measure of the model's confidence that a given a speaker is a Republican (1) or Democrat (0). More extreme probabilities indicate that the model is more confident about the speaker's party. Probabilities closer to 0.5 indicate more uncertainty. We use sentences (rather than full speeches) given token-limitations of transformer models and because partisanship will vary across speeches. We interpret this predicted probability as the partisanship expressed in a given position, which we can aggregate to a measure of speech-level partisanship by taking a simple mean of all sentences in a speech. Connecting this measure to our hypotheses, we expect changes in this speech-level average to correlate with a state's presidential vote share and with a governor's true party.

Our measure follows from the conventional understanding of polarization. The model will make more extreme predictions when (i) co-partisans speak like one another and (ii) Democrats and Republicans speak differently from one another (cf., McCarty 2019). When co-partisans have heterogeneous lexical features that overlap with their opposition, the model will make predictions closer to 0.5. Consider, for example, a world where Democratic governors exclusively discuss abortion rights and Republican governors ex-

¹This corpus does not include the theoretical maximum of 3,200 speeches because governors in some states (e.g., Texas) give bi-annual speeches, missingness in the data collection process, exclusions due to OCR processing challenges, and that we subset only to Republican and Democratic governors. Additionally, governors may give multiple speeches in a single year that could be considered a State of the State Address (e.g., a governor gives a budget and policy speech in the same year). When we encounter these, we include them as separate speeches in our data. In Figure A1, we plot a grid of state-years for which we have at least one speech.

clusively discuss immigration. If the model encounters a new sentence about immigration, it will yield a predicted probability close to 1 (more Republican). A key implication of this approach is that prediction errors (i.e., the model provides a prediction close to 1 when true label is Democrat) are informative. In this hypothetical world, a lone Democrat who discusses immigration will be assigned a predicted probability close to 1. Although we know this governor is a Democrat, their position-taking in this instance is Republican-valenced. However, as parties mix between these two topics, the less confident the model becomes, and its predictions will approach 0.5. As more sentences receive 0.5, we say position-taking is becoming less partisan.

In essence, partisanship is endogenous to the behavior of everyone else in the system. This approach differs from measuring ideology in that we have no exogenous scale of left-right or liberal-conservative position-taking. A system in which all governors support “Medicare for All” may be extremely liberal, but our approach would not classify the system as partisan or polarized. We also note that our approach can identify partisanship and polarization, but it cannot be used to isolate any particular source of polarization. For example, politics may be polarized because parties discuss different topics (as described above), discuss topics from different ideological perspectives (e.g., free market versus government intervention), or discuss the same topic using different framing (e.g., “illegal alien” versus “undocumented immigrant”). The advantage of our approach is that it will leverage all of these differences (and more) to assign a single, scalar prediction to each sentence. Although future work could disentangle these features, our goal is to produce a summary statistic of partisan differentiation that is agnostic to any particular source (as in Gentzkow, Shapiro and Taddy 2019; Peterson and Spirling 2018).

We also acknowledge that not every sentence in a governors’ speech constitutes partisan position-taking. For example, many State of the State Addresses contain generic welcoming remarks or expressions of state pride. As all governors engage in this kind of rhetoric, these sentences will have predicted probabilities close to 0.5. Other times,

governors may discuss a hyper-local issue (e.g., a natural disaster in the state). As these kinds of statements come from a single governor, again, the predicted probability of such a sentence will be close to 0.5. To the extent that these sentences are equally or randomly distributed, they do not induce bias in our measure of aggregate speech partisanship, they only draw the average toward 0.5.

Prediction with BERT

We use a multi-step process to generate our predicted probabilities by fine-tuning a series of BERT-base models. BERT is a transformer-based language model, developed and trained by Google in 2018, that represents tokens (i.e., words or word sub-pieces) as dense vectors in a common, multi-dimensional space. Conceptually, tokens that appear closer to each other in this vector space are more similar to one another. We select this model for two primary reasons.² First, the BERT-base model is trained on English Wikipedia articles and English language books. This pre-training process gives the model a starting point from which it develops a nuanced understanding of language. This pre-trained understanding is helpful in our specific context given that our training data is fairly limited (as described below, we use just three years of gubernatorial speech, a maximum of 150 documents, per year). A traditional model, like random forest, would struggle to make accurate predictions given the limited training set. Second, unlike static embeddings (e.g., word2vec), BERT embeddings are contextual: a token’s vector representation changes conditional on the surrounding text. For example, the token for “immigrant” will change position in the vector space where it is preceded by the token “undocumented” or “illegal.” To the extent that Democrats and Republicans use similar words (e.g., “immigration” or “healthcare”) in different contexts (e.g., Rodriguez, Spirling and Stewart 2023), the BERT model can help us better discriminate between the parties.

²We experimented with different approaches, including traditional models like naive bayes and random forest. We found that BERT maximized classification accuracy across our corpus and provided predictions with higher face validity.

While, the content of gubernatorial speeches differ significantly from the language used in Wikipedia and books, BERT is flexible and open-source, allowing researchers to fine-tune the model and improve performance for their specific context. We conduct unsupervised fine-tuning in which the model is exposed to distinctly political text—speeches from the Congressional Record (Gentzkow, Shapiro and Taddy 2019). This step enables the model to learn relationships between political concepts and words that may not have appeared in its original training data and allows it to better interpret gubernatorial speeches. For example, in this step, it might strengthen the association between the word “alien” and “immigration” rather than “Roswell, New Mexico.” Importantly, the model is *not* learning relationships between text and party identification at this stage, but rather, contextual patterns in political speech. Although this step is not strictly necessary, it helps the model better understand gubernatorial speeches in the subsequent step. As political language changes over time (and this is substantive point of interest in our research), we fine-tune a series of BERT base models, decade-by-decade, allowing for more flexibility and dynamism in modeling these contextual relationships.³ For example, we fine-tune a model on sentences from speeches in the congressional record of greater than 30 words between 1960 and 1969.⁴ We do the same for all remaining decades between 1970 and 2010.

In the third and final step, we conduct a leave-one-out (LOO) supervised learning task (see also Das et al. 2022) in which the relevant fine-tuned model is further trained on gubernatorial speeches in a supervised context—associating sentences with party labels—and used to predict the party label of each sentence in a held out speech.⁵ Specifically, to

³The choice of decades is convenient but arbitrary. One could conceivably pre-train candidate models on more fine-grained or coarser time periods. Given the degree to which political language changes over time versus the computational time and resources needed to fine-tune these models, decades strike a fair balance.

⁴We exclude speeches of fewer than 30 words as they are primarily parliamentary or non-substantive.

⁵We exclude all non-major party governors from training and prediction. We also exclude a small number of speeches sourced from YouTube transcripts that were lacking punctuation, which is important for our sentence-splitting algorithm. We conduct minimal pre-processing. The major steps we take are lowercasing and replacing state, major city, and major place names as well as state demononyms with the placeholder [place] to prevent the model from inferring partisanship from location names.

predict the party label of sentences in speech i given by governor g in year t , we begin with the relevant fine-tuned decade model.⁶ We then train this model to associate party labels with sentences of all speeches given by governors $\neg g$ in year t and all speeches given by all governors in years $t - 1$ and $t - 2$.⁷ Finally, we use this model to predict the party label of each sentence in speech i given by governor g in year t , which was not included in the training process. As a concrete example, to predict the party label of each sentence spoken by Governor Chris Christie (R-NJ) in 2015, we begin with the 2010s fine-tuned model. We then further train this model on all speeches given in 2013 and 2014 as well as all speeches in 2015, excluding the speech given by Christie in 2015 (which we are going to predict). We then use this newly trained model to predict the party label of each sentence spoken by Christie in 2015. We discard this model and begin with a clean version of the 2010s model to predict labels for the next governor’s sentences. We repeat this process for all speeches in all years between 1962 and 2023.⁸

Of course, governors are limited in how much they can say in an address and may select or avoid specific issues. Thus, we do not have access to some measure of governors’ “true” agendas or partisan proclivities that appear in other forums (e.g., social media) or in their hearts. What we do have is the full set of State of the State Addresses in most years, and thus, our training data represents the universe of governors’ positions expressed by mandate or convention in a given year. Intuitively, our LOO process asks, for each governor, “how much do you sound like peers in your own party versus the other party” conditional on what is said in governors’ State of the State Addresses in this year and the two previous years. In this sense, our training data is representative of the

⁶Our corpus of gubernatorial speeches ends in 2023, but our Congressional Record corpus ends in 2016. Thus, the 2010 model is trained only on floor speeches given through 2016 and is used as the base model for all gubernatorial speeches given after 2009.

⁷The Butler and Sutherland (2022) dataset represents an important effort to digitize the complete set of gubernatorial State of the State Addresses. While we identified some transcription errors during our analysis, such errors are an inherent challenge in projects of this scale. Correcting these errors is beyond the scope of this article; however, we conduct robustness tests in Appendix A.2 and confirm that these errors have limited implications for our results.

⁸Although our corpus includes speeches beginning in 1960, our analysis uses only speeches given in 1962 and after as we need two previous years of speeches to train our models.

diversity of how governors express themselves in this particular speech. To the extent that parties speak differently, and governors speak more like their co-partisans, the model's predictions should provide insight into governors' partisanship.

The Partisanship of Governors' Positions Across States and Over Time

At the end of this process, we have a matrix of sentence-prediction pairs for all sentences spoken by all governors in our corpus between 1962 and 2023. These predictions can theoretically range from 0 (most Democratic) to 1 (most Republican), but empirically, they range from 0.055 to 0.962. In Table 1, we present sentences and sentence excerpts from 2023 State of the State Addresses along with the probability the sentence was spoken by a Republican. In the top portion of the table, the five sentences least likely to be given by Republicans concern conventional Democratic owned issues: climate change and programs to address poverty and homelessness. In the bottom portion of the table, the five sentences most likely to be given by Republicans include parental rights in education and law enforcement. Sentences with 0.5 probability are generally non-partisan, non-substantive, or are not indicative of party without additional context. Table 1 provides some face validity to our measure of the partisan content of governors' speeches.

Although sentences provide rich data to understand micro-variation within and across speeches, our key quantity of interest is speech-level partisanship. We expect governors to sometimes speak like members of the other party, but for the most part, speak like their co-partisans. So, we ask: across everything a governor says in their State of the State Address, how Republican or Democratic do they sound? Here, we simply aggregate sentences to speech-level by taking the mean of the distribution of sentence-level predictions. Thus, for each governor, we have a continuous measure of their annual partisanship.

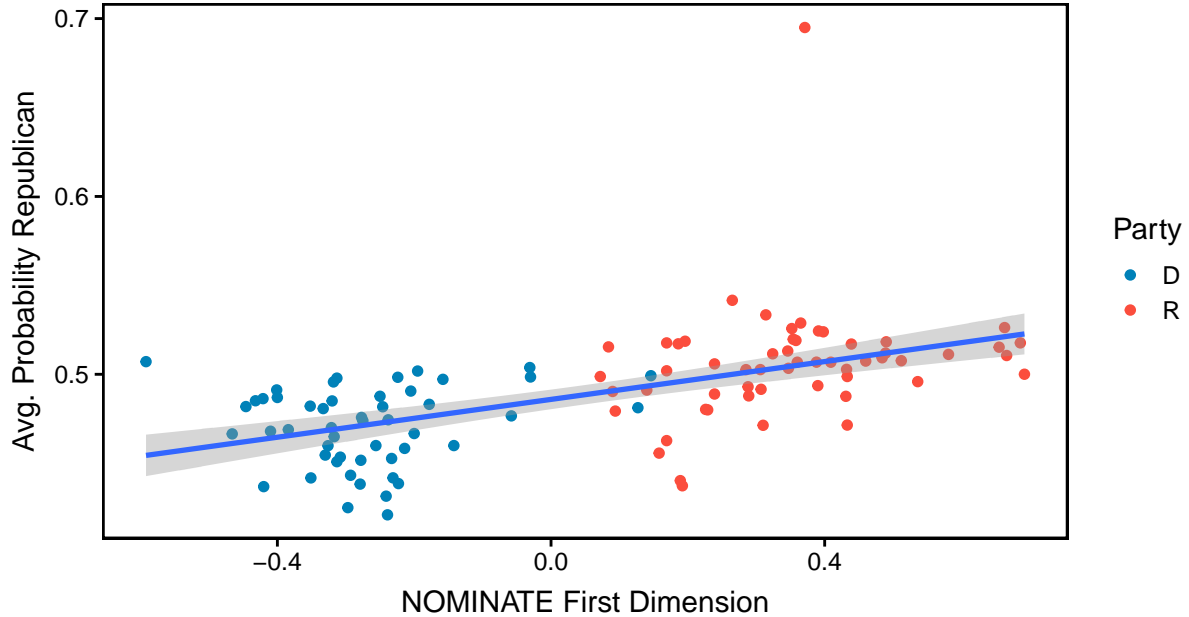
To what extent does this measure capture gubernatorial partisanship and polarization? To provide evidence of convergent validity, we leverage the first dimension NOMINATE scores for all 106 governors in our dataset who also served in Congress prior to

Table 1: Most Republican and Democratic Sentences, 2023

State	Sentence	Pr(Rep.)
VT (R)	this also means keeping our communities and families in mind as we address climate change.	0.11
NM (D)	we know that these fires were intensified by extreme weather brought on by climate change, and since the beginning of my administration, we have taken that threat seriously—embracing science in order to mitigate climate change’s devastating impact, protect our environment and ramp up clean energy production.	0.14
WI (D)	we created the state’s first-ever plan to respond to and mitigate the effects of climate change.	0.14
DE (D)	my budget next week will build on these investments in affordable housing and community development.	0.15
WA (D)	i’ say it again: until we fix our housing crisis, thousands of people will remain homeless.	0.16
SD (R)	i promised to bring the next big industry to [place].	0.50
CA (D)	now, the fourth largest economy in the world.	0.50
WI (D)	i’m tony evers, and i’m proud to be standing here tonight as the 46th governor of the great state of [place] to deliver my fifth state of the state address.	0.50
MO (R)	this year, we are again funding the program with an additional \$32 million dollars to continue the state’s part and benefit more [place] teachers.	0.82
NV (R)	for the first time, parents will have an advocate inside government promoting the expansion of school choice in [place].	0.82
NE (R)	trooper sutton, please stand and be recognized.	0.82
MI (R)	through the parents’ bill of rights, we will reaffirm that in [place], it is the state who answers to parents and not vice versa.	0.83
MI (R)	this parents’ bill of rights would further cement that when it comes to the usage of names, pronouns, or health matters, schools will adhere to the will of parents.	0.84

2025 (excluding party switchers). As these ideal points are time-invariant, we match them to the average of all speech-level probability estimates for each governor. A valid measure of gubernatorial partisanship should positively correlate with these ideology scores, as positive values are associated with more conservatism. We find that our measure and the NOMINATE scores have a Pearson correlation coefficient of 0.54, which is relatively high given that these measures use different data and measure slightly different underlying constructs. We visualize this relationship further in Figure 1. In general, we see that

Figure 1: Correlation Between First Dimension NOMINATE and Our Measure of Republican Position-Taking



governors with higher NOMINATE scores (more conservative) also tend to have higher (more Republican) predicted probabilities.

With these validation statistics in mind, we next provide insight into gubernatorial polarization at the speech level. In Table 2, we rank order speeches from most Democratic to most Republican in 2023. In line with what we would expect about gubernatorial polarization in 2023, we see that our measure almost perfectly clusters Republican and Democratic governors by party. Democratic governors tend to have predictions below 0.5 while Republicans have predictions above 0.5. Deviations are also informative. For instance, Phil Scott (R-VT), a Republican, is the seventh most Democratic-sounding governor in 2023—consistent with Vermont’s strong democratic lean in presidential elections. Other governors representing out-party states, such as Beshear (D-KY) and Youngkin (R-VA) are right at the threshold. On the other hand, governors representing states that lean heavily toward their party such as Hochul (D-NY) and Bergum (R-ND) gave speeches where the content was most strongly associated with their party. Overall, these rank-

Table 2: Ordered Probability that Governor is Republican, 2023

State	Governor	Party	R. Vote	Pr(R)	Pr(R) (Std. Dev.)	State	Governor	Party	R. Vote	Pr(R)	Pr(R) (Std. Dev.)
NY	Hochul	D	38.30	0.41	-1.68	AR	Sanders	R	64.20	0.49	0.16
MN	Walz	D	46.37	0.43	-1.37	VA	Youngkin	R	44.85	0.50	0.21
CT	Lamont	D	39.80	0.43	-1.24	OH	Dewine	R	54.11	0.50	0.25
WI	Evers	D	49.64	0.43	-1.18	MD	Moore	D	32.99	0.50	0.34
MA	Healey	D	32.86	0.44	-1.10	AK	Dunleavy	R	55.23	0.51	0.47
PA	Shapiro	D	49.39	0.44	-1.08	GA	Kemp	R	49.85	0.51	0.58
VT	Scott	R	31.71	0.44	-1.06	NH	Sununu	R	46.28	0.51	0.58
HI	Green	D	35.00	0.44	-1.01	WV	Justice	R	69.79	0.51	0.66
NM	Grisham	D	44.48	0.44	-0.95	MS	Reeves	R	58.36	0.52	0.73
RI	Mckee	D	39.39	0.45	-0.93	ID	Little	R	65.84	0.52	0.83
MI	Whitmer	D	48.58	0.45	-0.85	OK	Stitt	R	66.94	0.52	0.85
NC	Cooper	D	50.66	0.45	-0.75	TN	Lee	R	61.81	0.52	0.87
WA	Inslee	D	40.08	0.45	-0.73	IN	Holcomb	R	58.16	0.53	0.89
AZ	Hobbs	D	49.85	0.46	-0.52	TX	Abbott	R	52.84	0.53	0.92
CA	Newsom	D	35.07	0.47	-0.43	IA	Reynolds	R	54.18	0.53	1.01
IL	Pritzker	D	41.39	0.47	-0.43	NV	Lombardo	R	48.77	0.53	1.05
CO	Polis	D	43.06	0.47	-0.43	SD	Noem	R	63.45	0.53	1.08
NJ	Murphy	D	41.95	0.47	-0.39	NE	Pillen	R	59.75	0.54	1.21
LA	Edwards	D	59.45	0.47	-0.36	AL	Ivey	R	62.88	0.54	1.32
DE	Carney	D	40.41	0.47	-0.35	FL	Desantis	R	51.66	0.55	1.42
KS	Kelly	D	57.46	0.47	-0.29	MO	Parson	R	57.84	0.55	1.52
ME	Mills	D	45.31	0.48	-0.17	SC	Mcmaster	R	55.94	0.56	1.62
UT	Cox	R	60.65	0.49	0.06	WY	Gordon	R	72.44	0.56	1.65
KY	Beshear	D	63.17	0.49	0.08	ND	Burgum	R	67.18	0.57	1.83
MT	Gianforte	R	58.36	0.49	0.14						

ings accord with our general understanding of party polarization in 2023, suggesting that our approach performs as designed. Further, the degree to which governors representing heavily partisan states are predicted to be more partisan than those representing presidential out-party states on average provides some descriptive evidence of dyadic representation.

Although this ranking is one way to understand polarization, a visual alternative in the literature is to assess whether the scores conform to a unimodal or bimodal distribution separated by party (McCarty 2019). In Figure 2, we plot the density of speech-level predictions by year. On the x -axis, we plot the mean-centered probability a speech was given by a Republican—where higher values indicate that the speech is more likely to be delivered by a Republican governor. We shade these density curves by party of the actual speaker, Democrats in blue and Republicans in red. We plot these curves by year, beginning with 1962 at the top of the figure and ending in 2023 at the bottom. Early in

Figure 2: Polarization in SOTS Speeches Over Time

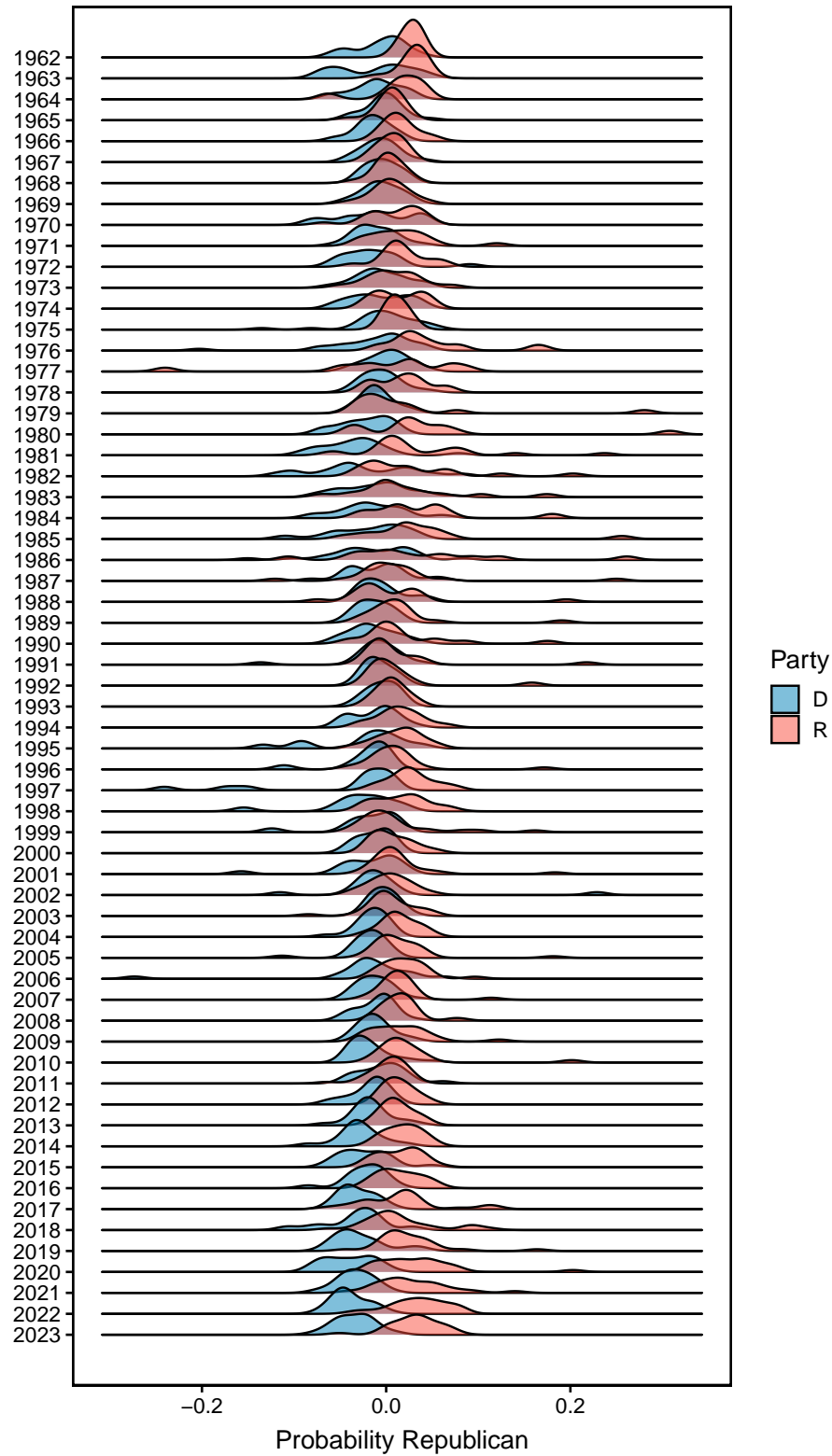
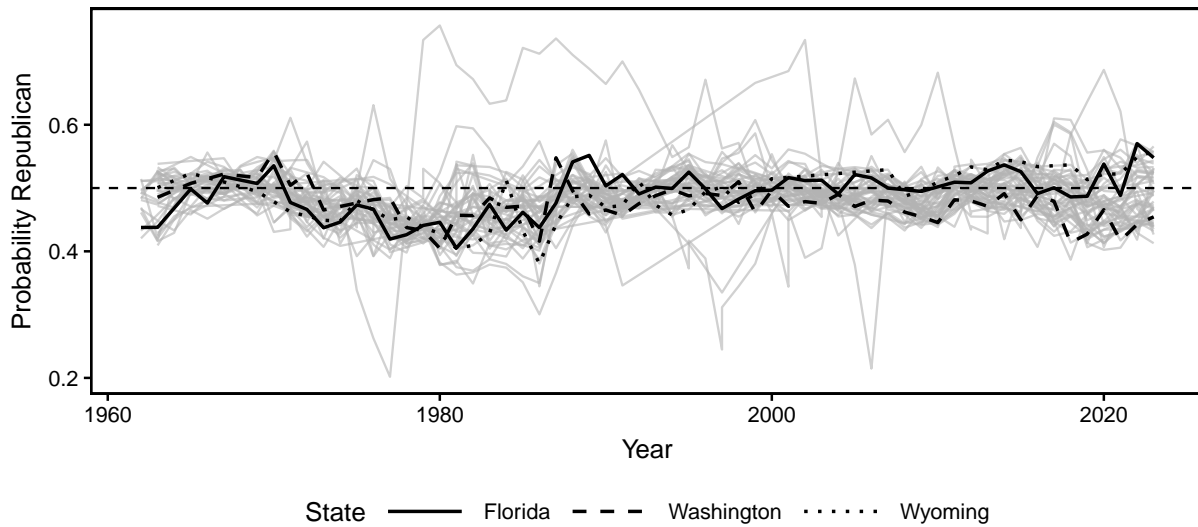


Figure 3: Partisan Change in SOTS Speeches Over Time



our time series, the distributions are either unimodal or contain substantial heterogeneity within party. However, speeches begin to polarize in the late 1990s. This polarization increases through the 2010s and into the 2020s, at which point, the distribution becomes increasingly bimodal and party-separated—indicative of strong rhetorical polarization.

Finally, Figure 3 shows the over time trend in each state. We have highlighted the trends for three states. Governors in Washington (the dashed-line) have trended more Democratic in their position-taking. Governors in Wyoming (the dotted-line) have trended more Republican. Governors in Florida (the solid-line) have fluctuated over time, but have expressed more Republican positions in recent years.

Empirical Approach

In our analysis, the dependent variable is the predicted probability that a speech was delivered by a Republican (averaged from the individual, sentence-level predictions). We standardize this variable to facilitate interpretation. In our empirical tests, we look at how the dependent variable correlates with the governor's own partisanship and the Repub-

lican presidential candidate's two-party vote share in that state (from Amlani and Algara 2021) both before 1994 and since that time. We use presidential vote share as a an indicator of a state's partisanship because it is easily observable by governors and is not endogenous to the governor's own electoral results (e.g., Grimmer 2013). We study how the correlation has changed over time by interacting our two independent variables with a dummy variable for the period (pre or post-1994).⁹ If, as we have argued, the increased information due to polarization and nationalization increases dyadic representation, then we expect the coefficient on the interaction term between the post-1994 period and the Republican two-party, presidential vote share to be positive. If we are wrong, and increasing polarization and nationalization have distracted voters and allowed politicians to pursue more of their own policy agendas, we should observe a positive coefficient on the interaction term between the post-1994 period and a dummy variable for whether the governor is Republican. Finally, if governors have avoided pressures to nationalize and polarize, than both of the interaction terms should not be statistically different from 0.

In our regression models, we also include state and year fixed effects. State fixed effects account for time-invariant, state-specific features (e.g., region) that may lead governors to speak more or less like their fellow partisans. Year fixed effects isolate changes in gubernatorial partisanship from state-invariant, year-specific features of the political environment that could induce governors to speak more like their fellow partisans (e.g., the occurrence of a presidential election). However, two-way fixed effects models can struggle to identify causal effects, particularly in the presence of heterogeneous treatment effects. Additionally, they do not inherently provide a built-in placebo test to assess pre-treatment trends, which is crucial for validating causal claims. We include these fixed effects given that we are primarily interested in identifying correlational relationships in

⁹To be clear, we do not argue that the events of 1994 *caused* a change in gubernatorial agenda setting, but rather, the changes in nationalization and polarization during the 1980s and 1990s culminated around this time (e.g., Gentzkow, Shapiro and Taddy 2019) and increased the amount of information available to politicians and voters. This dummy variable is a convenient cut-point for our analysis, but we provide evidence that the time-varying patterns we uncover are robust to other cut-points in Table B1.

the data. We also account for state-varying and time-varying variables including whether it is an election year in the state, whether the governor is running for reelection, and whether state government is unified (i.e., the same party controls the governor’s mansion and both state legislative chambers) given that governors may alter their agendas given what they anticipate may pass in the legislature.¹⁰

Results

We present our results in Table 3, where our dependent variable is the probability that a speech is given by a Republican governor, which has been standardized. In column 1, we present coefficients for the party-based model—which includes information about a governor’s partisanship but excludes information about the state’s partisanship.¹¹ The predicted probability that a speech was given by a Republican is 0.65 standard deviations higher when that governor is a Republican as compared to a Democrat in the pre-1994 period. In the post-period, this correlation is stronger: 0.90, a 0.25 difference between periods that is statistically significant.¹² In terms of our theoretical story, these results indicate that the partisanship of governors’ position-taking is increasingly associated with their own partisanship in the post-1994 period (when excluding a measure of constituency preferences).

In column 2, we test the voter-based model, in which we regress predicted probability on the state’s two-party Republican vote share in the previous election (excluding governor partisanship). In this model, we find no association between a state’s presidential partisanship and the partisanship of gubernatorial position-taking prior to 1994. How-

¹⁰These data come from (Klarner 2013) through 2011 and are updated by the authors thereafter.

¹¹This closely resembles Grumbach (2022, Ch. 3), which looks at the marginal effect of party control of state government on state policy before and after 2000 (without controlling for a measure of voters’ preferences). Here, we replicate his substantive finding: that partisanship strongly predicts gubernatorial position-taking.

¹²Statistical significance was determined by computing the 95% quantile via 1,000 bootstraps of the marginal effect differences.

Table 3: Relationship Between Governor Party, State Republican Presidential Vote, and Predicted Probability a Speech is Given by a Republican Governor

	(1)	(2)	(3)
Republican	0.642*** (0.113)		0.612*** (0.107)
Republican x Post-1994	0.281* (0.132)		0.215 (0.137)
Two-Party Republican Presidential Vote Share (10s)		−0.020 (0.052)	−0.004 (0.043)
Two-Party Rep. Pres. Vote (10s) x Post-1994		0.426*** (0.080)	0.246*** (0.066)
Election Year	0.066 (0.062)	0.076 (0.060)	0.077 (0.062)
Governor Running for Re-Election	−0.050 (0.076)	−0.084 (0.079)	−0.077 (0.077)
Unified State Government	0.007 (0.061)	−0.113 (0.100)	−0.021 (0.065)
Fixed Effects			
State	✓	✓	✓
Year	✓	✓	✓
Num.Obs.	2427	2427	2427
R2 Adj.	0.340	0.246	0.354
R2 Within Adj.	0.174	0.055	0.191
AIC	5990.5	6316.3	5941.3
BIC	6662.7	6988.5	6625.1

* p < 0.05, ** p < 0.01, *** p < 0.001

Note: Coefficients come from an ordinary least squares model where the dependent variable is the (standardized) probability a speech is given by a Republican governor. Standard errors are clustered at the state level.

ever, in the post-1994 period, a 10 point change in a state's presidential partisanship is associated with a 0.43 standard deviation increase in the Republican position-taking expressed in a governor's speech, consistent with our argument. Linking back to our theory, this model provides evidence that (when excluding governor partisanship) gubernatorial position-taking is more likely to correspond with voters' presidential partisanship—but only in the more nationalized and polarized period.

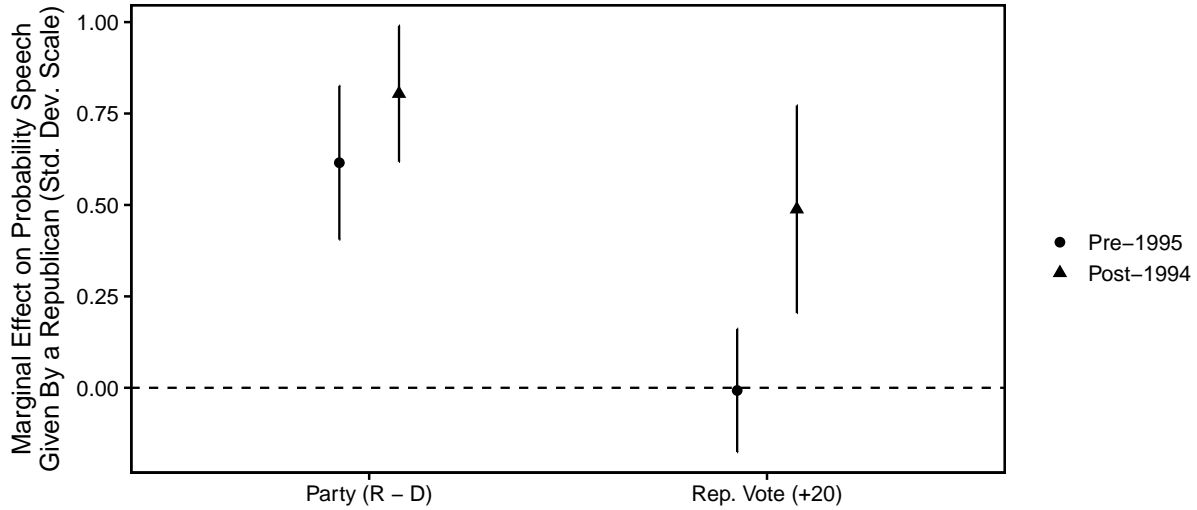
Finally, in column 3, we include both gubernatorial and state partisanship in the model

together to test our expectation versus the competing possibilities. Of the three possibilities that we outlined, our results give clear support to our argument: partisan gubernatorial position-taking increasingly correlates with state partisanship, consistent with the idea that polarization and nationalization provide more information that is relevant for representation. Specifically, we find that the coefficient on the interaction term between a state's presidential partisanship and the post-1994 period is still large and statistically significant. By contrast the coefficient on the interaction term for gubernatorial partisanship is not statistically significant.¹³ To be fair, gubernatorial partisanship has always a strong predictor of the partisanship of governors' positions. However, these results show that this factor has not become any *more* influential in the later period of increasing nationalization and polarization. By contrast, the partisanship inherent in governors' positions has become much more reflective of constituency partisanship than it was in the past.

Given the interaction terms in column 3, interpreting the coefficients directly from the table is not straightforward. As such, we compute the marginal effect of gubernatorial partisanship and voter preferences (holding the other at its mean) pre- and post-1994 to interpret effect sizes and statistical significance in Figure 4. We find that gubernatorial partisanship has a statistically significant relationship with the predicted probability in both periods: increasing it by 0.61 standard deviations before 1995 and 0.83 after. However, these two marginal effects are not statistically different from one another. While gubernatorial partisanship *does* correlate with the predicted probability, this effect does not vary over time. A governor's partisanship is no more predictive of the partisanship expressed in her positions throughout our time series. When we repeat the same exercise with voter preferences, we find presidential vote share does not correlate with the partisanship of position-taking before 1995 but does after 1994—an increase of nearly half a standard deviation per 20-point vote shift toward the Republican presidential candidate. This 20 point difference is close to the presidential vote share difference between

¹³By all three goodness-of-fit metrics, this model best explains the variation in our data. It maximizes adjusted R^2 and minimizes AIC and BIC across the models we've fit.

Figure 4: Marginal Effects of Governor Party and Constituency Partisanship on Probability Speech is Given By a Republican.



Note: Although party exerts a substantive influence on the partisanship expressed in governors' speeches, this effect does not vary over time. However, voter preferences (as measured through presidential vote share) are associated with the predicted probability only in the post-1994 period. Marginal effects are generated from the model in column 3 of Table 3.

the average Republican and Democratic governor in our time series.

To what extent is this post-1994 result proxying for a secular increase over time versus a sharper change that occurred in the 1990s? To assess this possibility, we re-specify the model in column 3, interacting party and presidential vote share with a decade indicator (see Appendix B1). There, we see that across 1960–1990, a state's Republican vote share has no statistical influence on the partisanship of a governor's positions. However, beginning in 2000, presidential vote share begins to show evidence of a positive effect that solidifies in 2010. This result is more consistent with a structural change around the mid-1990s than it is of a secular increase over time. This model also shows that gubernatorial partisanship plays a larger role in partisan position-taking in the 2010s and especially the 2020s (but not before). Given the large standard errors on these coefficients, we cannot

reject the possibility that effect sizes are the same in 2010. To the extent that party is influential, constituency preferences still matter, and their substantive effect is comparable if not more meaningful than party in this period.

In Table B2, we also split these results by party and show that what governors of both parties say is increasingly reflective of constituency partisanship in the post-1994 period. Taken together, our results and robustness tests show that both gubernatorial partisanship and voter preferences explain variation in the partisanship of governors position-taking. The increase in partisanship is not be leaving voters behind, but may instead be the result of politicians representing voters' polarized preferences.

Conclusion

A key feature of many models of representation is the need for information: voters and politicians must know what preferences the other holds for dyadic representation to work. We argue that increases in polarization and nationalization, which have been a major force over the last 30 years, have helped solve this informational problem. Voters can choose aligned candidates based on party identification. Similarly, these changes have also made it easier for politicians to infer what voters want, even at the state level, based on how they vote in presidential elections. Our argument contrasts with other work that has worried about increasing polarization and nationalization making it easier for politicians to simply ignore voters preferences (Grumbach 2022; Caughey, Warshaw and Xu 2017).

Empirically, we find that *voter* partisanship is an important predictor of the partisanship governors express in their position-taking. However, the influence of constituency preferences appears only in the post-1994 period, after nationalization and polarization increased dramatically. The correlation with governor partisanship is statistically static across these two time periods. These results are consistent with the idea of an increase

in information and a consistency of voter opinion that governors could rely on when taking positions. However, this finding does not contradict prior research about the importance of elite coordination and partisan policy diffusion—those things matter. Instead our main point is that voter preferences are more congruent with gubernatorial positions today than in the past—even accounting for partisan incentives. Blue-state Republicans, like Phil Scott (R) in Vermont, articulated more Democratic-sounding positions than their Republican co-partisans in red-states. And the same is true, on average, of governors who lead states with smaller partisan differences.

In this paper, we assume gubernatorial agendas are an intermediate step between voter preferences and state policy outcomes. However, future research could more directly consider the links between what governors express in their State of the State Addresses and subsequent activity in state legislatures. Given that many studies focus on outputs of state government, it is theoretically possible (although we are skeptical) that while governors take actions that are correlated with public opinion, legislatures may not do so. Further, future work could do more to disentangle the causal effects of state partisanship on gubernatorial agendas, and the degree to which these changes are driven by selection, responsiveness, or something else.

These findings point back to the important changes we have observed among voters more broadly. Voters have ideologically sorted into the party that more closely reflects their preferences (Levendusky 2009) and have turned their attention primarily to national issues and personalities at the expense of distinctly state or local issues (Hopkins 2018). Split-ticket voting has declined and the correlation between presidential vote and down ballot offices has increased (Carson, Sievert and Williamson 2023; Jacobson 2015). Thus, politicians tend to represent states where their own party is dominant and, as a consequence, promote agendas that are consistent with both their own, and their state's, partisan leaning. As party platforms nationalize (Hopkins, Schickler and Azizi 2022) and voters select politicians that share their party identity, positions—and subsequent policies

enacted at the state level—should look increasingly partisan. In other words, more partisan rhetoric is not necessarily a sign that state governments are acting against the will of the public. Instead, at least some of the divergence between red and blue state policy programs appears to reflect the fact that voters in these states want different things—and governors represent those preferences.

References

- Abramowitz, Alan I. 2018. *The Great Alignment: Race, Party Transformation, and the Rise of Donald Trump*. New Haven: Yale University Press.
- Ahler, Douglas J. and David E. Broockman. 2018. "The Delegate Paradox: Why Polarized Politicians Can Represent Citizens Best." *The Journal of Politics* 80(4):1117–1133.
- Amlani, Sharif and Carlos Algara. 2021. "Partisanship nationalization in American elections: Evidence from presidential, senatorial, gubernatorial elections in the U.S. Counties, 1872–2020." *Electoral Studies* 73:102387.
- ANES. 2021. "ANES 2020 Time Series Study Full Release [dataset and documentation]." <https://electionstudies.org/data-center/2020-time-series-study/>. Accessed 23 June 2025.
- Arnold, R. Douglas. 1990. *The Logic of Congressional Action*. Yale University Press.
- Bafumi, Joseph and Michael C. Herron. 2010. "Leapfrog Representation and Extremism: A Study of American Voters and Their Members in Congress." *American Political Science Review* 104(3):519–542.
- Bailey, Michael and David W. Brady. 1998. "Heterogeneity and Representation: The Senate and Free Trade." *American Journal of Political Science* 42(2):524.
- Bolton, Alexander and Sharece Thrower. 2021. *Checks in the Balance: Legislative Capacity and the Dynamics of Executive Power*. Princeton: Princeton University Press.
- Broockman, David E. and Christopher Skovron. 2018. "Bias in Perceptions of Public Opinion among Political Elites." *American Political Science Review* 112(3):542–563.
- Budge, Ian and Richard I. Hofferbert. 1990. "Mandates and Policy Outputs: U.S. Party Platforms and Federal Expenditures." *American Political Science Review* 84(1):111–131.
- Bullock, John G. 2011. "Elite Influence on Public Opinion in an Informed Electorate." *American Political Science Review* 105(3):496–515.
- Butler, Daniel M., Craig Volden, Adam M. Dynes and Boris Shor. 2017. "Ideology, Learning, and Policy Diffusion: Experimental Evidence." *American Journal of Political Science* 61(1):37–49.
- Butler, Daniel M. and David R. Miller. 2022. "Does Lobbying Affect Bill Advancement? Evidence from Three State Legislatures." *Political Research Quarterly* 75(3):547–561.
- Butler, Daniel M. and David W. Nickerson. 2011. "Can Learning Constituency Opinion Affect How Legislators Vote? Results from a Field Experiment." *Quarterly Journal of Political Science* 6(1):55–83.
- Butler, Daniel M. and Joseph L. Sutherland. 2022. "Have State Policy Agendas Become More Nationalized?" *The Journal of Politics* p. 000–000.

- Canes-Wrone, Brandice, David W. Brady and John F. Cogan. 2002. "Out of Step, Out of Office: Electoral Accountability and House Members' Voting." *American Political Science Review* 96(01):127–140.
- Carson, Jamie L., Gregory Koger, Matthew J. Lebo and Everett Young. 2010. "The Electoral Costs of Party Loyalty in Congress." *American Journal of Political Science* 54(3):598–616.
- Carson, Jamie L., Joel Sievert and Ryan D. Williamson. 2023. *Nationalized Politics: Evaluating Electoral Politics Across Time*. Oxford University Press.
- Caughey, Devin, Christopher Warshaw and Yiqing Xu. 2017. "Incremental Democracy: The Policy Effects of Partisan Control of State Government." *The Journal of Politics* 79(4):1342–1358.
- Coffey, Daniel. 2005. "Measuring Gubernatorial Ideology: A Content Analysis of State of the State Speeches." *State Politics Policy Quarterly* 5(1):88–103.
- Cohen, Jeffrey E. 1995. "Presidential Rhetoric and the Public Agenda." *American Journal of Political Science* 39(1):87–107.
- Cox, Gary W. and Mathew D. McCubbins. 1993. *Legislative Leviathan: Party Government in the House*. University of California Press.
- Cox, Gary W. and Matthew D. McCubbins. 2005. *Setting the Agenda: Responsible Party Government in the U.S. House of Representatives*. Cambridge: Cambridge University Press.
- Darr, Joshua P, Matthew P Hitt and Johanna L Dunaway. 2018. "Newspaper Closures Polarize Voting Behavior." *Journal of Communication* 68(6):1007–1028.
- Das, Sanmay, Betsy Sinclair, Steven W. Webster and Hao Yan. 2022. "All (Mayoral) Politics Is Local?" *The Journal of Politics* 84(2):1021–1034.
- Fiorina, Morris. 2016. *The (Re)Nationalization Of Congressional Elections*. Stanford University: .
- Gentzkow, Matthew, Jesse M. Shapiro and Matt Taddy. 2019. "Measuring Group Differences in High-Dimensional Choices: Method and Application to Congressional Speech." *Econometrica* 87(4):1307–1340.
- Gerber, Elisabeth R. and Jeffrey B. Lewis. 2004. "Beyond the Median: Voter Preferences, District Heterogeneity, and Political Representation." *Journal of Political Economy* 112(6):1364–1383.
- Goggin, Stephen N., John A. Henderson and Alexander G. Theodoridis. 2020. "What Goes with Red and Blue? Mapping Partisan and Ideological Associations in the Minds of Voters." *Political Behavior* 42(4):985–1013.
- Grimmer, Justin. 2013. *Representational Style in Congress: What Legislators Say and Why It Matters*. Cambridge University Press.

- Grumbach, Jacob. 2022. *Laboratories Against Democracy: How National Parties Transformed State Politics*. Princeton: Princeton University Press.
- Harden, Jeffrey J. and Thomas M. Carsey. 2012. "Balancing constituency representation and party responsiveness in the US Senate: The conditioning effect of state ideological heterogeneity." *Public Choice* 150(1–2):137–154.
- Hertel-Fernandez, Alexander. 2019. *State Capture: How Conservative Activists, Big Businesses, and Wealthy Donors Reshaped the American States—and the Nation*. Oxford University Press.
- Hopkins, Daniel J. 2018. *The Increasingly United States: How and Why American Political Behavior Nationalized*. Chicago: University of Chicago Press.
- Hopkins, Daniel J., Eric Schickler and David L. Azizi. 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.
- Jacobson, Gary C. 2015. "It's Nothing Personal: The Decline of the Incumbency Advantage in US House Elections." *The Journal of Politics* 77(3):861–873.
URL: <https://www.journals.uchicago.edu/doi/10.1086/681670>
- Jacobson, Gary C. 2019. *Presidents and Parties in the Public Mind*. Chicago: University of Chicago Press.
- Jones, Bryan D. and Frank R. Baumgartner. 2005. *The Politics of Attention: How Government Prioritizes Problems*. University of Chicago Press.
- Kirkland, Justin H. 2014. "Ideological Heterogeneity and Legislative Polarization in the United States." *Political Research Quarterly* 67(3):533–546.
- Klarner, Carl. 2013. "State Partisan Balance Data, 1937 - 2011."
URL: <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/LZHMG3>
- Kousser, Thad and Justin H. Phillips. 2012. *The Power of American Governors: Winning on Budgets and Losing on Policy*. Cambridge University Press.
- Kumar, Martha Joynt. 2007. *Managing the President's Message: The White House Communications Operation*. JHU Press.
- Lee, David S., Enrico Moretti and Matthew J. Butler. 2004. "Do Voters Affect or Elect Policies? Evidence from the U. S. House." *The Quarterly Journal of Economics* 119(3):807–859.
- Lee, Frances E. 2009. *Beyond Ideology: Politics, Principles, and Partisanship in the U. S. Senate*. Chicago: University of Chicago Press.
- Lee, Frances E. 2016. *Insecure Majorities: Congress and the Perpetual Campaign*. Chicago: University of Chicago Press.

- Lenz, Gabriel S. 2012. *Follow the Leader?: How Voters Respond to Politicians' Policies and Performance*. Chicago: University of Chicago Press.
- Levendusky, Matthew. 2009. *The Partisan Sort: How Liberals Became Democrats and Conservatives Became Republicans*. University of Chicago Press.
- Light, Paul. 1999. *The President's Agenda: Domestic Policy Choice from Kennedy to Clinton*. The John Hopkins University Press.
- Lorenz, Geoffrey Miles. 2020. "Prioritized Interests: Diverse Lobbying Coalitions and Congressional Committee Agenda Setting." *The Journal of Politics* 82(1):225–240.
- Mansbridge, Jane. 2003. "Rethinking Representation." *American Political Science Review* 97(4):515–528.
- Martin, Gregory J. and Joshua McCrain. 2019. "Local News and National Politics." *American Political Science Review* 113(2):372–384.
- Mason, Lilliana. 2018. *Uncivil Agreement: How Politics Became Our Identity*. Chicago, Illinois: University of Chicago Press.
- McCarty, Nolan. 2019. *Polarization: What Everyone Needs to Know*. New York, NY: Oxford University Press.
- McCrone, Donald J. and James H. Kuklinski. 1979. "The Delegate Theory of Representation." *American Journal of Political Science* 23(2):278–300.
- Miller, Warren E. and Donald E. Stokes. 1963. "Constituency Influence in Congress." *The American Political Science Review* 57(1):45–56.
- Noble, Benjamin S. 2024. "Presidential Cues and the Nationalization of Congressional Rhetoric, 1973–2016." *American Journal of Political Science* 68(4):1386–1402.
- Peterson, Andrew and Arthur Spirling. 2018. "Classification Accuracy as a Substantive Quantity of Interest: Measuring Polarization in Westminster Systems." *Political Analysis* 26(1):120–128.
- Pierce, Douglas R. and Richard R. Lau. 2019. "Polarization and correct voting in U.S. Presidential elections." *Electoral Studies* 60:102048.
- Pierson, Paul and Eric Schickler. 2020. "Madison's Constitution Under Stress: A Developmental Analysis of Political Polarization." *Annual Review of Political Science* 23(1):37–58.
- Rodriguez, Pedro L., Arthur Spirling and Brandon M. Stewart. 2023. "Embedding Regression: Models for Context-Specific Description and Inference." *American Political Science Review* 117(4):1255–1274.
- Rogers, Steven. 2023. *Accountability in State Legislatures*. Chicago: University of Chicago Press.

- Rosen, Jill. 2018. "Americans don't know much about state government, survey finds."
- Schattschneider, E. 1942. *Party Government: American Government in Action*. New York: Routledge.
- Sinclair, Barbara. 2006. *Party Wars: Polarization and the Politics of National Policy Making*. Norman: University of Oklahoma Press.
- Sulkin, Tracy. 2009. "Campaign Appeals and Legislative Action." *The Journal of Politics* 71(3):1093–1108.
- Tausanovitch, Chris and Christopher Warshaw. 2013. "Measuring Constituent Policy Preferences in Congress, State Legislatures, and Cities." *The Journal of Politics* 75(2):330–342.
- Theriault, Sean M. and David W. Rohde. 2011. "The Gingrich Senators and Party Polarization in the U.S. Senate." *The Journal of Politics* 73(4):1011–1024.
- Thomson, Robert, Terry Royed, Elin Naurin, Joaquín Artés, Rory Costello, Laurenz Enns-Jedenastik, Mark Ferguson, Petia Kostadinova, Catherine Moury, François Pétry and Katrin Praprotnik. 2017. "The Fulfillment of Parties' Election Pledges: A Comparative Study on the Impact of Power Sharing." *American Journal of Political Science* 61(3):527–542.
- Warner, Seth B. 2023. "Measuring Executive Ideology and Its Influence." *State Politics Policy Quarterly* 23(1):97–116.
- Winburn, Jonathan, Daniel J. Fudge, Joseph Murphy III and Bailey Griffin. 2024. "State attachment and gubernatorial approval." *Social Science Quarterly* 105(4):1061–1075.
- Zelizer, Adam. 2019. "Is Position-Taking Contagious? Evidence of Cue-Taking from Two Field Experiments in a State Legislature." *American Political Science Review* 113(2):340–352.

Supplementary Information

Are Voters' Preferences Being Ignored by Governor's Agendas?

Contents

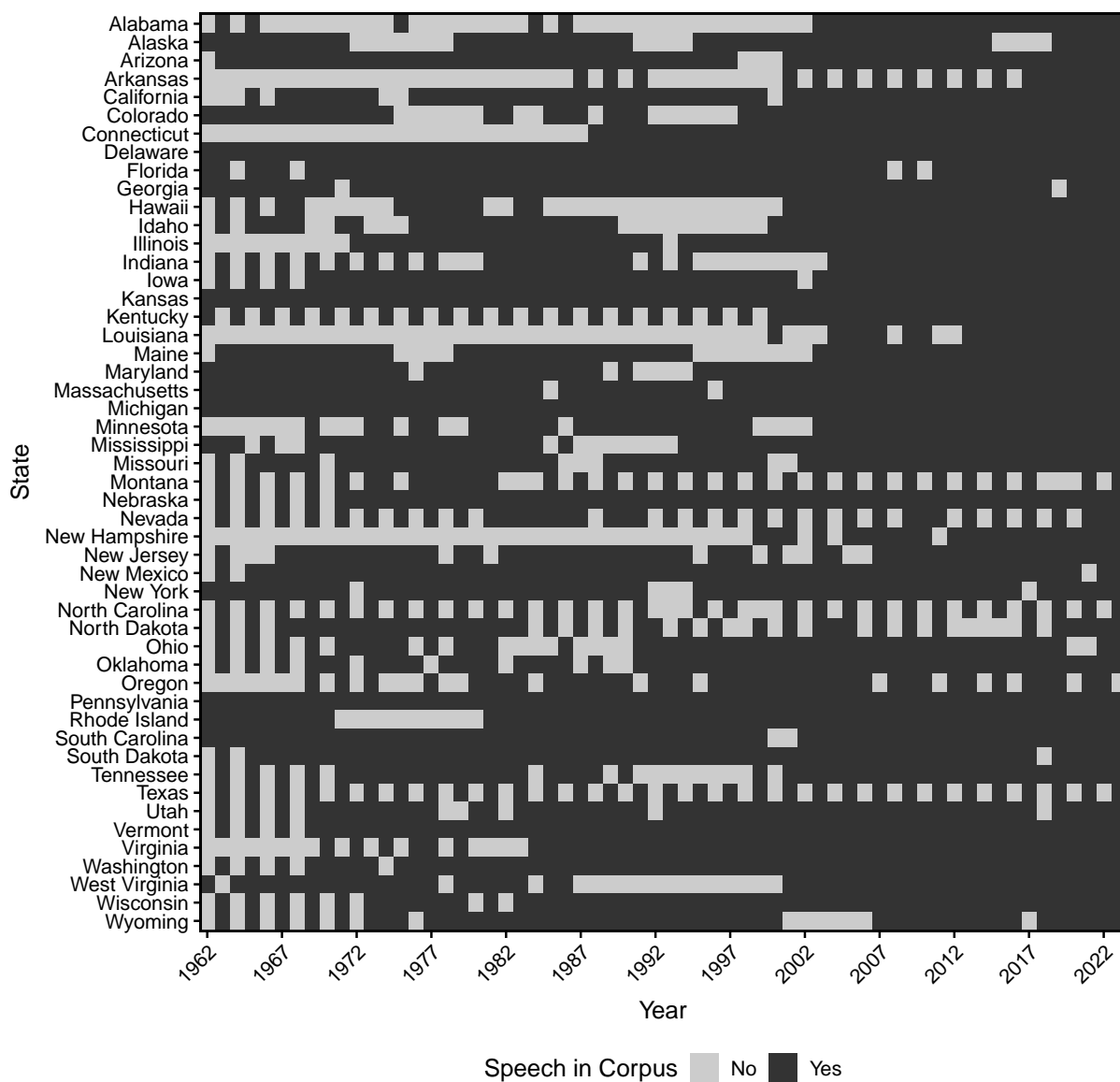
A	Data and Methods	1
A.1	Speech Availability and Missingness	1
A.2	Transcription Errors and Effects on Conclusions	2
B	Additional Models	3

A Data and Methods

A.1 Speech Availability and Missingness

Figure A1 visualizes missingness in the corpus (1962–2023). We use speeches from Butler and Sutherland (2022) before 2017, and we extend the data through 2023. Our database covers 77% of all potential speeches, with gaps due to unavailable records as well as states (like Texas) where speeches may not be given in a particular year.

Figure A1: SOTS by Year in Data



A.2 Transcription Errors and Effects on Conclusions

In pre-processing the Butler and Sutherland (2022) speech corpus, we identified several speeches in which the OCR is, understandably, imperfect. Given the scope of the project, the diversity of formatting across state journals, and the difficulty of processing older scans, we identified several instances in which non-speech content is included (e.g., the Speaker introducing the governor) as well as instances where sentences may be spliced together due to irregular formatting.

The most worrying concern is that these transcription errors may be correlated with time. That is, older journals have more problematic formatting and lower quality scans than more recent journal scans or text scraped directly from websites on which speeches were hosted. This could impact our model to the extent that our unit of analysis is the sentence, and it is possible, then, that these transcription errors—especially in the form of spliced sentences could be consequential. Given our descriptive conclusion that the extremity of predictions, and thus partisanship, has increased over time, is it possible that this conclusion is driven entirely by transcription error?

Although correcting these errors is beyond the scope of our project, we acknowledge that these transcription errors could be consequential for the conclusions we draw. To probe the sensitivity of our results, we use our manually collected and validated 2021–2023 set of State of the State addresses, which we are confident contain few, if any, transcription errors. In our analysis, we intentionally degrade the quality of the text by randomly splicing sentences in a random subset of speeches. Then, we run the same prediction exercise as the main text, using the now degraded 2021–2023 speeches to predict the label of all sentences in 2023 through the LOO process.

From our qualitative examination, these errors tend to be persistent within certain states (given that their journals have consistent formatting across a period of time) and they appear to affect a low-to-moderate number of sentences within speeches. To probe the sensitivity of our conclusions we take a grid-based approach in which we independently vary the proportion of states affected and the proportion of sentences affected within speeches (both, 0 to 0.3 by 0.05 intervals). Each time we iterate through a combination of values, we conduct an entire LOO prediction loop on all 2023 speeches. We then compute the predicted probabilities and assess the accuracy of predictions for all 49 possible combinations.

To determine the robustness of our original results, note that the true accuracy of 2023 speeches is 0.86. The full range of accuracy values across this interval is [0.8, 0.96]. We also note that the standard deviation of accuracies across these permutation tests is 0.03, whereas the standard deviation of accuracies across the original data (i.e., all speeches

1962–2023) is 0.09. To the extent that transcription errors degrade accuracy, they account for about one-third of that variation on average. That leaves two-thirds of the variation to be explained by speech-specific factors. And, interestingly, introducing errors can actually improve classification—likely due to introducing artifacts and regularizing text in a way that is informative to the model. That implies we may be *overestimating* polarization in earlier periods of our study. Together, this test provides evidence that our results are robust to these transcription errors.

B Additional Models

In the main text, we interact our key independent variables with a binary post-1994 indicator variable. However, the significant interaction terms could be due to a secular increase over time in how these coefficients relate to the outcome. Here, we re-specify the model, interacting an indicator for each decade with our key independent variables. If our binary indicator is picking up a secular increase, we should see that appear across the decade-vote share interactions. Instead, we see that 1970, 1980, and 1990, the effect of Republican vote share is no different than it was in 1960 (the baseline). However, in 2000, 2010, and 2020, the effect of Republican vote share becomes a positive predictor. This result is consistent with a structural change in how governors responded to their constituency in beginning in the 2000s. That 1990 is not significant is likely due to (1) the change not occurring until the mid-1990s and (2) a lag in gubernatorial responsiveness to this new political environment. We also see that party plays a larger role in this regression, but this change comes later and is primarily concentrated in the 2020s, where we only have four years of data.

Table B1: Interaction with Decade	
	(1)
Republican	0.402*** (0.098)
Two-Party Republican Vote Share (10s)	0.011 (0.053)
Republican x 1970	0.120 (0.152)
Republican x 1980	0.529+ (0.293)
Republican x 1990	0.317 (0.226)
Republican x 2000	0.227 (0.159)
Republican x 2010	0.331* (0.148)
Republican x 2020	0.935*** (0.265)
Rep. Vote x 1970	0.102 (0.083)
Rep. Vote x 1980	-0.211 (0.167)
Rep. Vote x 1990	0.192 (0.159)
Rep. Vote x 2000	0.150+ (0.078)
Rep. Vote x 2010	0.194* (0.081)
Rep. Vote x 2020	0.285* (0.112)
Election Year	0.076 (0.063)
Governor Running for Re-Election	-0.066 (0.073)
Unified State Government	-0.013 (0.067)
Fixed Effects	
State	✓
Year	✓
Num.Obs.	2427
R2 Adj.	0.368
R2 Within Adj.	0.209

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Note: Coefficients come from an ordinary least squares model where the dependent variable is the (standardized) probability a speech is given by a Republican governor. Standard errors are clustered at the state level.

The models in Table B2 replicate the model in column 3 of Table 3 in the main text with results split by party. We can see that there is a correlation between what governors in both parties say and presidential partisanship in the post-1994 period.

Table B2: Interaction with Decade		
	Dem. Only	Rep. Only
	(1)	(2)
Two-Party Republican Vote Share (10s)	−0.077 (0.052)	−0.039 (0.101)
Two-Party Rep. Vote (10s) x Post-1994	0.244* (0.102)	0.332* (0.125)
Election Year	−0.080 (0.091)	0.178* (0.084)
Governor Running for Re-Election	−0.054 (0.095)	−0.082 (0.089)
Unified State Government	0.005 (0.108)	0.098 (0.083)
Fixed Effects		
State	✓	✓
Year	✓	✓
Num.Obs.	1224	1203
R2 Adj.	0.321	0.289
R2 Within Adj.	0.013	0.037

Note: Coefficients come from an ordinary least squares model where the dependent variable is the (standardized) probability a speech is given by a Republican governor. Standard errors are clustered at the state level.

References

Butler, Daniel M. and Joseph L. Sutherland. 2022. "Have State Policy Agendas Become More Nationalized?" *The Journal of Politics* p. 000–000.