Is All Politics Presidential?*

Decomposing partisan patterns in U.S. election outcomes across offices, 1972-2020

Derek E. Holliday†

October 30, 2022

Recent research contends state and local elections are driven by presidential contests, presenting correlations between presidential and down-ballot voting as evidence. This work assumes a top-down relationship, often called "nationalization." I propose an alternative theoretical framework in which I decompose election results into candidate specific, partisan, and idiosyncratic components. I apply this framework to presidential, senate, and governor elections from 1972-2020, 476 statewide elections across 26 offices from 2016-2020, and all partisan down-ballot races in Maricopa County, Arizona from 2008-2020. While it is true that election results are tied together increasingly by partisanship, I find it is not true that presidential elections are the most strongly tied to partisanship. My findings are consequential for how we understand partisan voting behavior and how we evaluate quality political representation in state and local contexts.

*I thank my chair Chris Tausanovitch and committee members Jeff Lewis, Dan Thompson, and Lynn Vavreck for their immensely helpful comments. All errors are my own.

†Ph.D. Candidate, UCLA, deholliday@ucla.edu

Introduction

A growing body of research finds the electoral successes of candidates for state and local office appear increasingly linked to copartisan presidential candidates (Abramowitz and Webster 2016; Hopkins 2018; Jacobson 2015b; Sievert and McKee 2018). This apparent relationship is called "nationalization." Broadly, this work assumes a top-down relationship between presidential and down-ballot results, with the evidence for such a relationship often being increasing correlations between copartisan candidate vote-shares across contests. The representational consequences of nationalization are presented in bleak terms; if voters make electoral decisions based simply on the attributes of presidential candidates or antipathy toward members of the other party, how can officeholders be held accountable for their actions or the unique demands of their elected positions (Abramowitz and Webster 2016)?

In this paper, I argue that the conclusion that nationalization is the result of presidential candidates influencing down-ballot results is not supported by the prior work, which has used data and estimation strategies unable to distinguish top-down mechanisms from others. In particular, previous strategies fail to distinguish presidential influence from the growing strength of partisan political preferences over all elections. I present an alternative theoretical framework for understanding nationalization. Election results across contests within the same electorate can differ for three reasons. First, candidates may differ in *valence*, performing systematically better or worse than copartisan candidates in other contests across all voting districts (counties and precincts). Second, the effect of a district's *partisan lean* on voting outcomes may differ across contests. Finally, the *stochastic*, idiosyncratic forces present in all elections can lead to differences in voting outcomes. Under this framework, nationalization in its strongest form would imply a complete lack of variance in all elements of elections. Put simply, nationalization is the decreasing variety of how voter preferences are translated into vote choice in aggregate across different elections.

I operationalize this theoretical framework with a measurement-model approach, estimating separate parameters for candidate valence, the partisan lean of voting districts, and how that partisan lean is translated into vote-shares. I apply the model to three contexts: over time, across statewide contests, and in sub-state elections. Over time, I analyze county-level presidential, senate, and governor results from 1972-2020, focusing on the post-Southern realignment time period. For statewide

contests, I analyze 476 statewide elections across 26 offices from 2016-2020 using precinct-level data. Finally, for contests deeper down-ballot, I utilize precinct-level results for all partisan contests in Maricopa County, Arizona, from 2008-2020. These data represent the most comprehensive set of elections evaluated for nationalization to date.

Across all contexts, I find partisanship is an increasingly strong component of election results. Variation in candidate valence and the effect of a district's partisan lean have decreased, and are particularly low in deeper down-ballot races. However, presidential contests are not the strongest manifestation of partisan voting. Like other races with greater media attention, presidential elections are often noisy translations of district partisanship into vote-shares. This suggests the increasing correlation of election outcomes is the result not of top-down, presidential influence but of the growing strength of partisanship across all elections. These results have consequences for how we evaluate the quality of political representation in state and local contexts.

The paper proceeds as follows. First, I review existing research on nationalization, assessing differences in theoretical understandings of the concept and how it is operationalized. Second, I propose my theoretical and methodological approach, detailing its advantages over previous approaches. I then introduce the data for analysis and descriptive results from the measurement model over-time and cross-sectionally, considering the relative influence of presidential and partisan forces in election outcomes. I end with a discussion of how the results shape our understanding of representation in a federal system.

Nationalization in Theory and Practice

In its broadest conceptualization, the "nationalization" of U.S. elections refers to the growing tendency of national and state/local election results to appear increasingly similar. As Hopkins (2018) states when describing nationalization as it manifests in voting outcomes, "If voters' choices in state and local races *echo those in national races*, their voting is nationalized" (emphasis added). In this sense, nationalization describes an easily observable aggregate-level outcome, and all published work on the concept concurs on this fundamental pattern. Disagreement arises, however, when describing the underlying *mechanisms* of nationalization. Beyond the similarity of election outcomes, what does it mean for state and local races to "echo" national races?

Many scholars describe nationalization as a top-down force, which I will refer to as "presiden-

tialization." As Sievert and McKee (2018) understand it, "nationalization refers to an increasing linkage between presidential voting patterns with subpresidential contests at the federal, state, and local level." Moskowitz (2021) concurs; "United States House, U.S. Senate, gubernatorial, and other state and local election outcomes have grown increasingly tied to presidential election outcomes." So goes the presidency, so too go down-ballot contests. A stronger claim in this genre implies an almost causal relationship between presidential contests and down-ballot outcomes. Sievert and McKee (2018) elaborate their understanding further:

> "The most visible and salient election contest, that for the White House, sets the agenda for most other American elections. For years, southern politics scholars recognized and emphasized the role of presidential elections in leading to Republican electoral success in lower offices (Black and Black 1987), and this was dubbed top–down advancement (Aistrup 1996). Nationalization is a more expansive form of top–down advancement that is expected to permeate all regions of the United States."

If presidential candidates are seen as the standard-bearers for their respective political parties, voters are easily able to connect candidate attributes and performance across offices without forming unique preferences or criteria for less salient offices (Carsey and Wright 1998).

Anecdotally, the presidentialization mechanism of nationalization seem particularly popular in media descriptions of down-ballot races. Under headlines such as "Newsom's Anti-Trump Recall Strategy Offers Republicans a Warning for 2022" and "GOP seeks to nationalize gubernational elections," journalists describe the use of Donald Trump as a campaign tool for gubernatorial candidates (Manchester 2019; J. Martin 2021). In California Governor Gavin Newsom's case, successfully connecting his Republican opponent to a President deeply unpopular in the state was seen as a savvy campaign strategy. In 2019, however, in gubernatorial races in Republican-leaning states such as Kentucky, Mississippi, and Louisiana, leading candidates took the opposite approach. Trump personally visited many campaign events in these states, explicitly focusing the elections on his ongoing impeachment probe. As the President became more involved in these contests, the media described them as more "nationalized" in the "presidentialization" respect.

Alternatively, nationalization is sometimes portrayed in terms of party loyalty, stemming perhaps from voters' more national policy preferences. Abramowitz and Webster (2016) contend "Growing

party loyalty and straight-ticket voting have led to the nationalization of elections in the United States: there is a much closer connection between the results of presidential elections and the results of House, Senate and even state legislative elections today than in the past." Similarly, Jacobson (2015b) extends the argument to the decrease in incumbency advantage among US House candidates: "Over the last three decades… party loyalty has risen steadily, the articulation between congressional and presidential elections has strengthened, and electoral politics have grown increasingly nationalized."

Of course, suggesting presidential and down-ballot contests are linked in the presidentialization conception doesn't mean that linkage is not informed by political preference, although many scholars do not analyze this claim. Indeed, Hopkins (2018) theoretically conceives of nationalization in a more spatial manner, arguing "national and local politics are fought over related dimensions, and the scope for disagreement in national politics is much wider. As a consequence, national political divisions infuse subnational politics, and political engagement is primarily national in orientation." Significant research supports this conclusion, but has not directly linked nationalized electoral outcomes to the homogenization of preferences over issues and offices. Caughey, Dunham, and Warshaw (2018), for example, provide evidence of cross-state ideological variation within each party declining sharply since the 1950s. Further evidence exists for more "vertical" nationalization, with N. Lee, Landgrave, and Bansak (2022) finding similar patterns of party sorting across a range of national and local issues among local elected officials. Others find similar relationships, but also find dimensions of local politics that remain independent of national policy debates (Bucchianeri et al. 2021; Jensen et al. 2021). Evidence from conjoint experiments that voters are motivated primarily by policy preferences over appeals to negative partisanship further suggests any relationship between presidential and down-ballot vote totals is likely deeper than simple skin-deep appeals to partisan identity (Costa 2021).

Despite deeper theoretical underpinnings and varieties of potential mechanisms, extant nationalization research often uses the same set variables: the two-party vote share of the Democratic presidential candidate and the two-party Democratic vote share of the down-ballot office of interest[1]. These two are often linked using either simple linear regression or a correlation coefficient (Amlani and Algara 2021; Hopkins 2018; Jacobson 2015a; Sievert and McKee 2018; Weinschenk et

[1]A detailed summary of previous methodological approaches is given in Appendix A1.

al. 2020; Weinschenk 2022). While certainly a convenient way of eliciting a connection between two offices, this measurement approach cannot differentiate between different mechanisms underlying the correlations. Correlational approaches particularly obscure outcomes arising from variation in candidate valence; instances where one party's down-ballot candidates perform uniformly better across voting districts relative to the presidential candidate appear identical to instances of equal or worse performance.

Despite this, scholars make strong conclusions about the nature of the relationship: "evaluations of the president play an increasingly important role in structuring Americans' attitudes about the president's political party and his co-partisans in other elected offices" (Sievert and McKee 2018). An obvious lurking confounding variable in these sorts of models is partisan political preference; as partisanship becomes a stronger driver of behavior across all contests, results will appear more similar. Conceptualizing presidential voting behavior as an organizing force in U.S. politics is, of course, not entirely novel. Scholars have used district-level presidential vote-shares as measures of district partisanship for years (Ansolabehere, Snyder, and Stewart 2001; Canes-Wrone, Brady, and Cogan 2002; Erikson and Wright 1980). However, as Levendusky, Pope, and Jackman (2008) note, elections are merely indicators of underlying preferences and subject to short-term forces.

Formalizing Shortcomings of Previous Approaches

In Figure 1, I construct four hypothetical elections to demonstrate the shortcomings of correlational and bivariate regression approaches to measuring nationalization. In each panel, every point represents a fictional voting district (county or precinct, for example). The two-party margin of victory for the Democratic candidate is given on the y-axis, and the general leaning of the district toward or against Democratic candidates is given on the x-axis. This is meant to capture a more general partisan dimension of politics across all elections. In previous approaches, it is assumed the two-party Democratic Presidential candidate's vote share is an error-less manifestation of partisan preference; the x-axis in each of the plots could simply be replaced by presidential vote-share.

Note that the vote-shares panels 1, 3, and 4 are correlated with each other with a correlation coefficient of 1, and panels 1, 2, and 3 all have identical slopes. These similarities exist despite systematic differences between each of the elections. Consider panels 1 and 2. While each share the same slope and intercept, panel 2 exhibits much greater residual error, suggesting the election

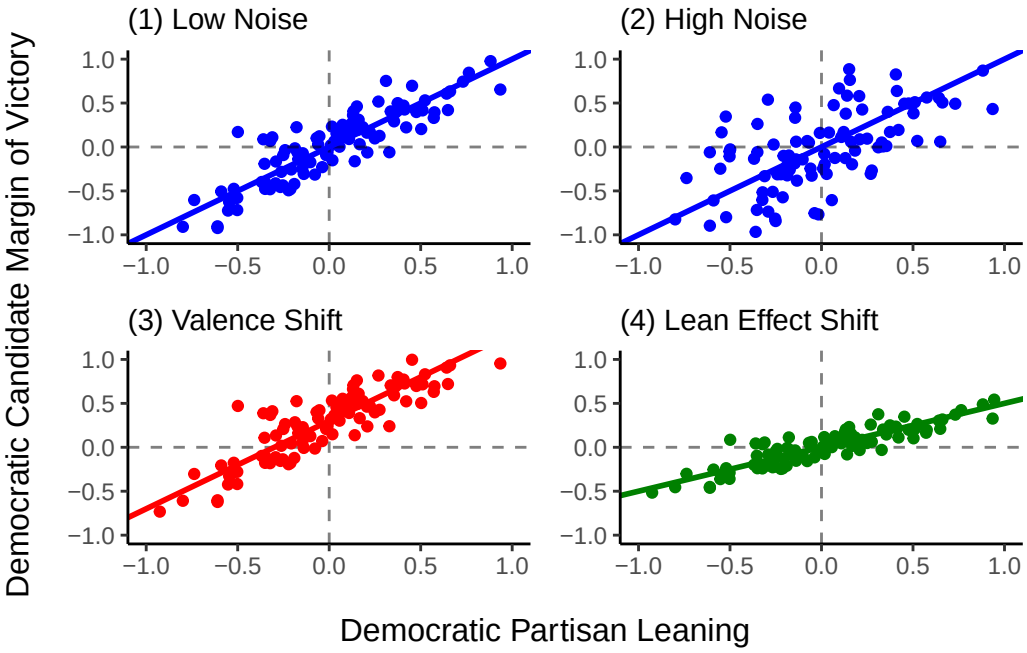

Figure 1: Correlations and Slopes Mask Distinct Election Forces

was a noisier manifestation of general district partisan leaning. Alternatively, panels 1 and 3 have the same residual error and slope, but the Democratic candidate in panel 3 is performing much better across all districts. For the remainder of the paper, I call this a change in candidate valence. Finally, while the voting outcomes in panels 1 and 4 are correlated with correlation coefficient 1 and have similar residual error, the relationship between the partisan lean of a district and the voting outcomes are substantially different; the rate of translation between partisan lean and vote-share is reduced considerably.

Election outcomes, then, can appear identical in correlational and bivariate approaches, but belie three sources of variation: residual error as a result of idiosyncratic noise in an election, valence shifts from relative candidate over- and under-performance, and differences in how district partisan lean is translated into votes. Therefore, I propose a more complete operationalization of nationalization as the reduction in variation across all election forces. As idiosyncratic noise, valence shifts, and differences in the effect of partisan lean collapse toward similar values, elections have "nationalized" in the sense that forces structuring outcomes across all levels of government have grown more similar.

Unlike previous approaches, this operationalization of nationalization is agnostic toward the

underlying mechanism behind the growing similarity of election forces. It does, however, allow for such mechanisms to be explored. In this paper, I will focus on the "presidentialization" of elections implied by much of the literature; that is, presidential candidates and voting outcomes increasingly structure down-ballot results. Specifically, the "presidentialization" implies a number of patterns that can be measured in the above operationalization of nationalization.

First, if the top-down, "presidentialization" mechanism of nationalization is accurate, we would expect the relationship between partisan lean and vote share to be tightest in presidential contests relative to other contests. Presidential contests are the preferential and partisan locus, and all other contests are noisier manifestations of such preferences. In the strongest version of presidentialization, the partisan leaning and presidential voting behavior of districts are indistinguishable; in Figure 1, this would manifest as district results appearing in a perfectly straight line without deviation. Conversely, if mechanisms behind nationalization are more akin to partisan sorting across offices, the tightness of the relationship between preference and vote share should appear fairly similar across contests. Partisan preference is no more likely to be predictive in presidential contests than any other contest; it acts as a latent dimension structuring **all** behavior up and down the ballot.

Second, presidentialization suggests presidential candidate choice should be the strongest predictor of down-ballot vote choice. Being just a manifestation of presidential preference, using district partisan lean as a predictor should yield noisier results. Alternatively, if elections are structured primarily by underlying partisan preference, then such latent partisanship should be the strongest predictor, as the same dynamics underlying presidential races structure other down-ballot races.

Finally, the further down-ballot a contest, the more inoculated it should be against presidentialization. Top-of-ballot contests share more similarities with and opportunities of influence from presidential contests; many higher-office candidates consider presidential runs themselves, comment directly on national policy issues, and receive endorsements from presidential candidates. If nationalization is a manifestation of top-down forces, the contests with more connections to the "top" should be the most nationalized. If nationalization is a manifestation of stronger partisan influence, we should expect the opposite. The lower salience the election, the fewer signals voters have to translate preference into votes besides party identification. Nationalized elections, then, are less about the functions of offices and more about the signals voters have access to when making

decisions.

Decomposing Variation in County and Precinct Election Returns

To distinguish between top-down and partisan mechanisms, I propose measuring nationalization through a decomposition of electoral outcomes into the following form:

$$\text{DemMargin}_{ij} = \alpha_j + \beta_j \text{Partisan Lean}_i + \epsilon_{ij},$$

for electoral district i and contest j. DemMargin_{ij} is the Democratic candidate's vote share margin of victory in the i^{th} electoral district and j^{th} contest, using the two-party vote share in the race[2]. The intercept α_j can be theoretically understood as the *valence* of the Democratic candidate in the j^{th} contest, or the partisanship-independent candidate effect. By construction, this is the Democratic candidate's margin of victory when the electoral district partisan lean equals zero. Positive numbers are associated with better performance from Democratic candidates while negative numbers are associated with worse performance, relative to their Republican opponents.

The electoral district-level variable for partisan lean is centered at zero such that positive numbers are associated with more Democratic-leaning electoral districts and negative numbers with more Republican-leaning electoral districts. The slope parameter β_j modifies this electoral district partisan lean, and can be understood as the rate of translation of partisanship into Democratic votes. For the model to be identified, a I set the presidential rate of translation of partisans lean into vote-share to 1. Values less than one signify a weaker relationship between preference and vote share than in the most recent presidential election, and values greater than one signify a stronger relationship[3]. The stochastic element of elections is accounted for by ϵ_{ij}.

This approach to measuring nationalization has a number of other theoretical and methodological advantages over previous work. First, it allows for presidential elections to be treated simply as another manifestation of political preference being translated into votes along with other electoral contests instead of as directly influencing down-ballot behavior as an independent variable. This

[2]For example, if the Democratic candidate in a contest receives 75 votes, the Republican candidate receives 25, and an Independent candidate receives 10, DemMargin equals 75 - 25 = 50.

[3]It is theoretically possible for slope values to be negative in cases where partisan lean and Democratic vote shares are inversely related, or in a case where a Democratic candidate was coded as a Republican and vice-versa. However, this does not occur in my analysis.

makes the approach more consistent with the deeper theoretical understanding of nationalization as down-ballot contests being contested over the same partisan dimension as national contests, regardless of jurisdictional (dis)similarity.

In addition, this approach allows me to separate preference and candidate effects through the two parameters α_j and β_j (the candidate valence and partisan lean effect). While a purely Downsian approach would assume votes are simply a function of ideological distance between candidate and voter, we know certain non-ideological forces (such as a scandal during the campaign) also influence vote choice. This is another reason for moving presidential vote shares onto the same side of the equation as other contest vote shares; candidates for president vary year to year, and therefore so too does the translation of district partisanship into votes. Each presidential contest is its own manifestation of preference, which this operationalization is able to track. These measures are not independent, however, nor should we expect them to be. On average, as the absolute value of candidate valence increases, the magnitude of the partisan lean effect will decrease. This is largely due to valence setting a floor or ceiling for the performance of the Democratic candidate, which by construction limits the range of variation over which the partisan lean effect operates.

Methodologically, parameterizing nationalization in terms of a linear transformation of partisan lean makes clearer the interpretation of each of the coefficients. In previous approaches where down-ballot vote shares were functions of presidential vote shares, the slope parameter of interest has an ambiguous meaning. Clearly a value of one would mean a strong relationship between presidential and down-ballot contests, but how should one compare values on opposite sides of one? Would a value of 0.95 be as "nationalized" as a value of 1.05? Both values indicate a close but imperfect relationship between the two vote shares, and in purely functional terms the latter indicates each percentage-point gain by the presidential candidate is associated with a 1.05 percentage point gain by the down-ballot candidate. Determining which is more "nationalized" in terms of how the contest is connected to preference is not immediately clear, however. This is not an ambiguity shared by this decomposition approach. The partisan lean effect β_j can be directly understood as a translation of aggregate partisanship into votes. The greater the slope, the greater the rate of translation. More importantly, my focus is on the level of variation in underlying contest dynamics and the degree to which contests are structured by partisan dimension.

Estimation

Because I only observe DemMargin_{ij} in my formulation, the estimation of α_j, β_j, and Partisan Lean_i is a nontrivial task. Thankfully, the political science measurement model literature has been particularly adept in solving similar problems, such as ideology scaling in congress and measuring district-level liberalism (Kernell 2009; Levendusky, Pope, and Jackman 2008; Poole and Rosenthal 1985; Tausanovitch and Warshaw 2014). I utilize a maximum likelihood method used by Groseclose, Levitt, and Snyder (1999), which itself is similar to Aldrich and McKelvey (1977) and Poole (1998). In their paper, the authors are concerned with comparing interest groups scores for members of Congress over time and across chambers, where the scale for the scores are known to shift and stretch over time based on the composition and agendas of the chambers. By setting a single year as a reference point and explicitly modeling the stretch (slope) and shift (intercept) of the underlying preferences of the representatives, this comparison across time and chambers becomes possible.

This approach fits nicely with the theoretical problem of nationalization. In my application, the "shift" parameter is the candidate valence α_j and the "stretch" parameter is the partisan lean effect β_j. For the model to be identified, I must set one contest as a "reference" against which other contests are shifted and stretched. As previously discussed, I use the most recent presidential contest as this reference point, at which I set $\alpha_{president} = 0$ and $\beta_{president} = 1$. The choice of the reference point is methodologically inconsequential (any contest could be chosen), but important for the substantive interpretation of the effects, as the other parameters will be interpreted as relative to the reference point. This works nicely with the theoretical underpinnings of nationalization, as we want to explore how the effect of partisanship is shifted and stretched relative to a national reference point. Other modeling approaches, such as in Levendusky, Pope, and Jackman (2008), assume constant effects across offices, making them unsuitable for operationalizing nationalization.

Specifically, the estimation process involves representing contests as a matrix (one for each state-time period), where each row is a precinct, each column is a contest, and each cell is populated by the Democratic margin of victory. I then iteratively perform singular value decompositions (hereafter SVD), where each decomposition yields estimates for α_j, β_j, and Partisan Lean_i. These values are then used to populate missing democratic margin values (precinct-contests with missing

data) in the matrix for the next iteration[4]. This process repeats until convergence (when the mean absolute difference between the starting and ending values for estimated partisan lean is less than $1 \cdot 10^{-8}$). See Appendix A2 for a comparison of this estimation technique to Markov Chain-Monte Carlo, which yields almost identical results.

In isolation, each parameter estimated in this process has a clear functional interpretation in the model. However, certain cases can lead to interactions making substantive interpretation more difficult. For example, in cases where the the mean partisan lean is far from 0 and β_j is substantially greater than 1, the estimate for the intercept α_j can be far outside the substantively meaningful bounds of -1 and 1. This almost never occurs in contemporary elections, but happens frequently during the Southern realignment when presidential partisan voting results were inversely correlated with results for state office. Therefore, I use a transformed parameter μ_j to represent candidate valence, where $\mu_j = \alpha_j + (\beta_j - 1) \cdot \overline{\text{Partisan Lean}}$. This yields the difference in the expected outcome between office j and the presidential election in the district with the average partisan leaning. By construction, since I set the presidential contests to have $\alpha = 0$ and $\beta = 1$ for identifiability, $\mu_{president} = 0$. I use μ in place of α for the remainder of this paper.

Data and Results

One of the shortcomings of current research on nationalization is the piecemeal approach to contests; typically, presidential election results are only compared to one or two other contests, such as governor, senate, or state judicial races. This makes direct comparisons of results difficult and artificially limits our understanding of the reaches and limits of nationalization in U.S. politics. To resolve this, I analyze the most complete set of elections to date simultaneously. In this section, I draw on the following data sources:

- Amlani and Algara (2021): provides county-level election results for presidential, senate, and governor elections from 1872-2020. Allows for analysis of top-of-ballot contests over a longer time horizon. For the purposes of this paper, I focus on the elections starting at the end of the Southern realignment (1972 onward) for a more consistent understanding of party composition/ideology.

[4]Typically only one iteration is needed, as most state-time periods do not have missing data. The iterative process is only necessary because singular value decomposition requires no cells in a matrix be missing.

- OurCampaigns.com: provides crowd-sourced county-level data for state secretary of state and attorney general elections from 1972-2020. These data have been used in a number of recent studies (de Benedictis-Kessner and Warshaw 2020; Sides, Vavreck, and Warshaw 2022) and augment the top-of-ballot results from Amlani and Algara.

- Voting and Election Science Team (VEST) Dataverse: provides precinct-level general election results for statewide contests from 2016-2020. Allows for a more focused analysis on downballot races in a reduced timeframe (Voting and Election Science Team 2022).

Nationalization Over Time

Using data from Amlani and Algara (2021) and OurCampaigns.com, I analyze county-level general election vote shares for presidential, senate, governor, secretary of state, and attorney general contests from 1972 to 2020 using the SVD estimation strategy. I split the data into state-four-year intervals, beginning each interval with a presidential election year and using that presidential election as the reference point in the analysis. The analysis covers 2,057 distinct contests; 13 presidential, 789 senate, 637 governor, 280 secretary of state, and 338 attorney general.[5] Figure 2 plots the raw estimates for the absolute candidate valence effects over time for all offices, where every point is a single election. Recall candidate valence effects are *intercept shifts* relative to the Presidential contest.

Across all contests, the average absolute candidate valence has decreased since 1972. This suggests systematic advantages for certain candidates are smaller now than in the past. These decreases have been notably similar across offices and keep a fairly linear trend, with average annual decreases of about 0.004. Over the 48 year time period, these effects are substantial, and easily enough to alter election winners.

Figure 3 plots the corresponding partisan lean effects across all contests for every office. These values are the *slope* values, evaluated relative to the Presidential contest where the slope is set to 1. Note the margins of the y-axis in Figure 3 are constrained to more clearly visualize the bulk of the data, but 65 observations have values beyond the limits that influence the estimation of the trend line. The results are similar to the candidate valence effect: average partisan lean effects

[5]Data coverage for secretary of state and attorney general elections is sparser in earlier election years due to limitations in the OurCampaigns.com data.

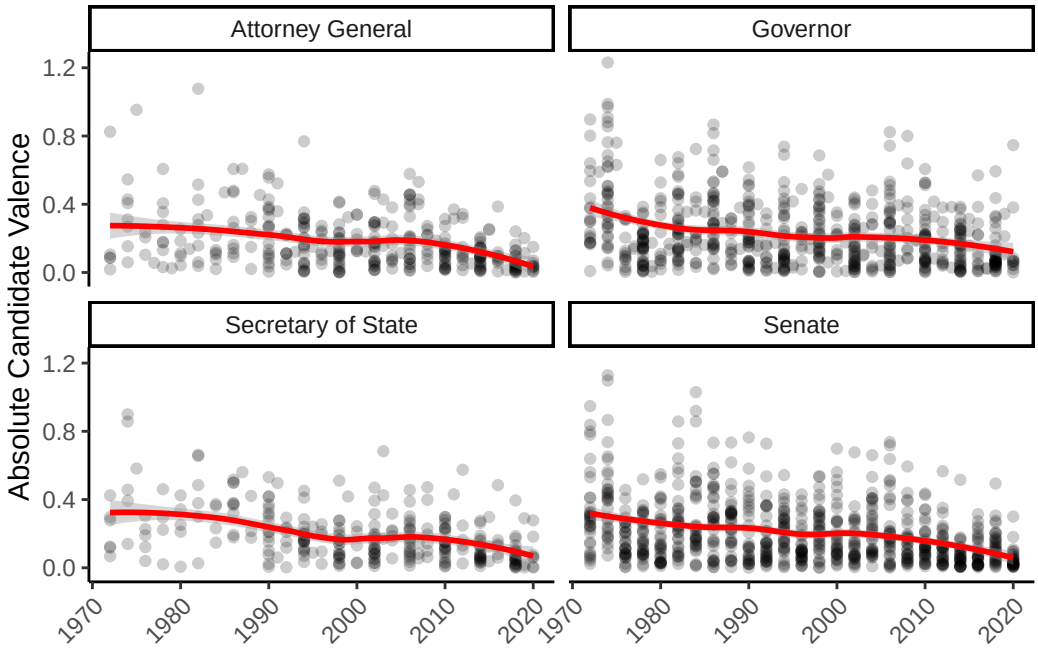

Figure 2: Candidate Valence Effects have Decreased. Senate, Governor, Secretary of State, and Attorney General, 1972-2020

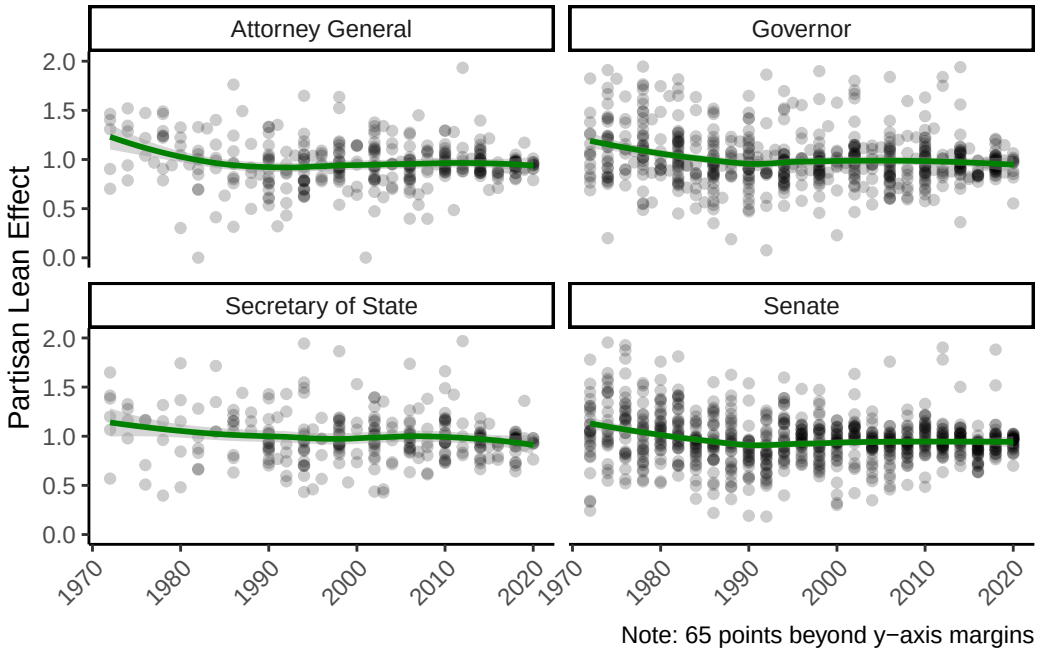

Figure 3: Partisan Lean Effects have Converged. Senate, Governor, Secretary of State, and Attorney General, 1972-2020

have trended toward those of Presidential contests since 1972. However, the bulk of this movement happens from 1972 to 1990. While candidate valence effects have continuously decreased over time, the decreases in partisan lean effects have dissipated since 1990, suggesting the realignment of contests around a common dimension was mostly complete by that time. This is an important advancement of our understanding of nationalization, as previous work has documented a mostly linear increase of nationalization over time without reference to variance in the underlying forces structuring the phenomenon.

While the average values of candidate valence and partisan lean effects help us understanding the degree to which contests are *centered* around a common point, we need to directly measure the *variance* in the effects to understand the relative similarities of such contests over time. I plot the standard deviations of both the absolute candidate valence and partisan lean effects in Figure 4, pooling across all contests in four-year intervals beginning with the most recent Presidential election. For both election forces, we see a steep decline in variance from a high point in the early 1970s, with smaller but mostly linear decreases subsequently.

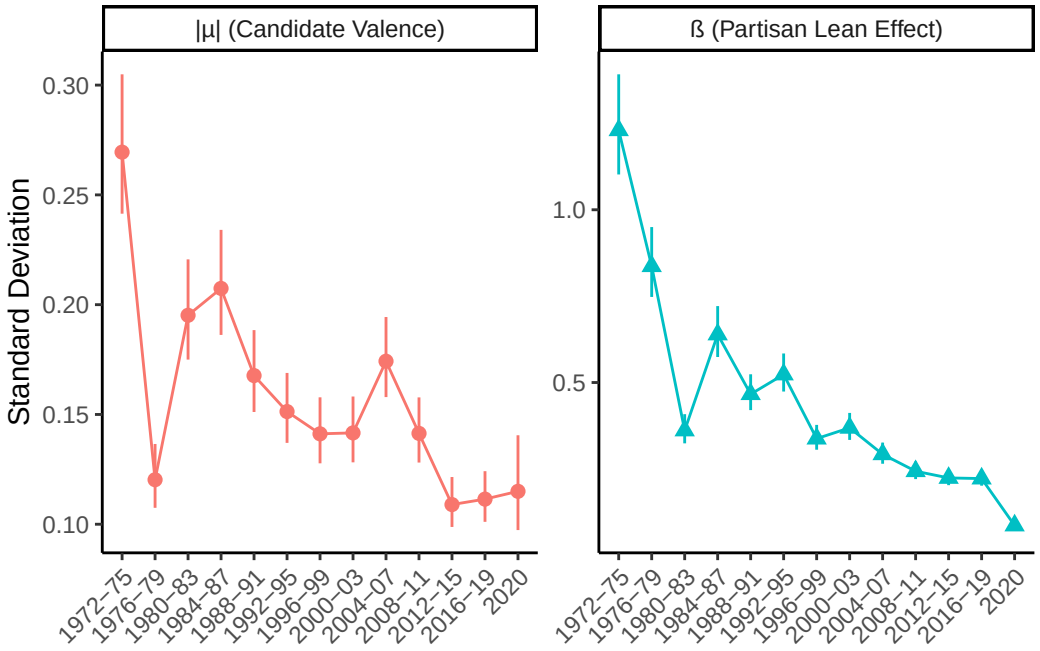

Figure 4: Variation in Election Forces has Decreased. Pooled Senate, Governor, Secretary of State, and Attorney General, 1972-2020

The final facet of nationalization I measure is the prevalence of stochastic, idiosyncratic noise

in each election. As residual variance left unexplained by the candidate valence and partisan lean effects decreases, elections results across contests become more similar to each other. The decrease in idiosyncratic noise is shown in Figure 5, this time with the inclusion of Presidential contests.[6] The residual standard error resulting from regressing the two-party Democratic candidate margin of victory on district partisan lean is shown as a point for each contest. These results are again remarkably similar across offices. While there has been a general downward trend in residual standard error, that trend appears steepest after 2000. This is in contrast to previous facets of nationalization shown above, where most of the movement occurs from 1972 to 1990. This suggests an almost two-step nationalization process: in one period, the factors shaping election outcomes snap into place, and in the other period the voting patterns fall in line more and more.

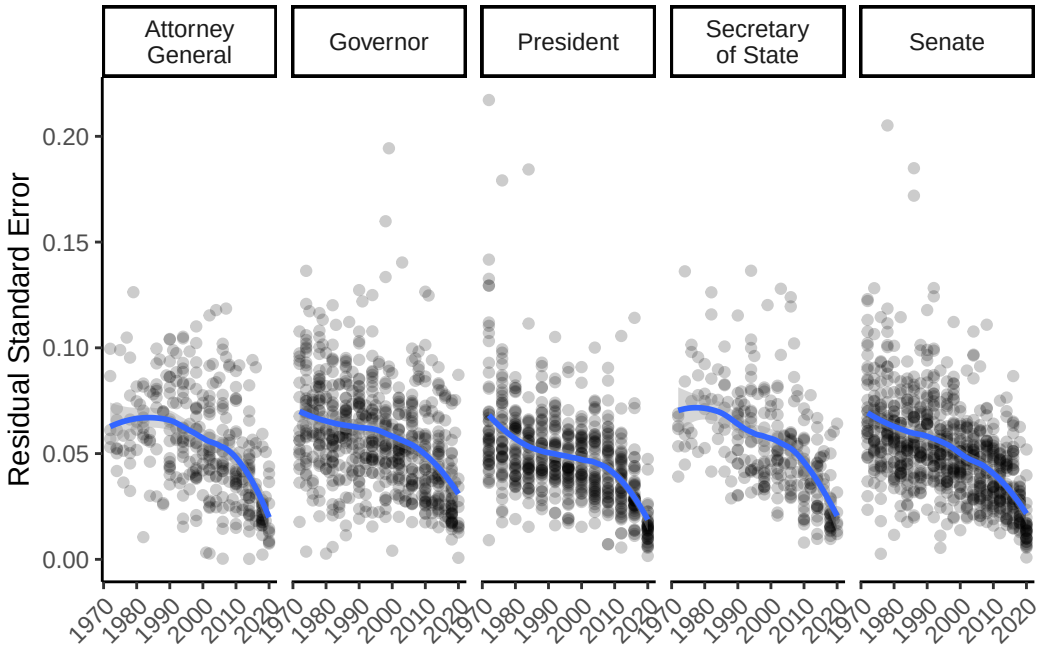

Figure 5: Idiosyncratic Noise has Decreased. President, Senate, Governor, Secretary of State, and Attorney General, 1972-2020

The preceding figures have documented a much more nuanced and complete picture of the nationalization of U.S. politics. As election forces and noise associated with those forces have decreased over time, U.S. politics has become more nationalized. This does *not* necessarily mean elections have become more "presidentialized," or that the fundamental structuring forces in elections is the

[6]Presidential contests were excluded from previous figures because they have consistent values of 0 and 1 for the valence and lean effects, respectively.

office of the President. Using the decomposition approach, I am able to distinguish such presidentialization from the more general phenomenon of nationalization. Figure 5 already offers some insight into this distinction, as it is *not* the case that the average error in Presidential contests is significantly less than the error in down-ballot contests. If U.S. elections are increasingly referenda on the president, we would expect the level of noise in Presidential contests to be lowest, especially in the contemporary period, but that does not appear to be the case.

As previously discussed, another observable implication of presidentialization within my theoretical framework is that presidential voting patterns should be **as good a predictor** of down-ballot patterns as a more general measure of district-level partisan leaning. Methodologically, we can treat this like any other prediction problem by horse-racing the two models against each other on held-out data and comparing the level of residual error. I mimic this sort of cross-validation approach with the SVD method by holding out results for each down-ballot office, estimating the latent partisan lean of each district using the remaining results, then regressing the Democratic two-party margin of victory of the heldout office on the estimated district partisan lean. I obtain the presidential model comparison by simply regressing the two-party Democratic margin of victory in the down-ballot contest on the two-party Democratic margin of victory in the most recent presidential contest.

The results of this process are given in Figure 6. In the left panel, I plot the mean residual standard error for each model (using Presidential voting or estimated partisan lean) in each 4-year interval. Across all years, partisan lean is a better predictor of down-ballot voting outcomes than presidential voting patterns, with lower mean residual standard error. While the absolute difference between the two models appears fairly similar over time, more recent elections simply have less noise as a starting point. To better understand relative model performance over time, then, I plot how much better the partisan lean model performs in terms of percentage in the right panel of Figure 6. For example, if the presidential vote and partisan lean models had RSEs of 0.1 and 0.09, respectively, the partisan lean model is performing 10% better.[7] Given the lower baseline rate of error in more recent elections, this means partisan lean acts as a much better relative predictor now than in earlier elections.

These over-time results suggest U.S. elections have nationalized, but not presidentialized. The

[7]Formally, $(1 - (0.09/0.1)) \times 100$

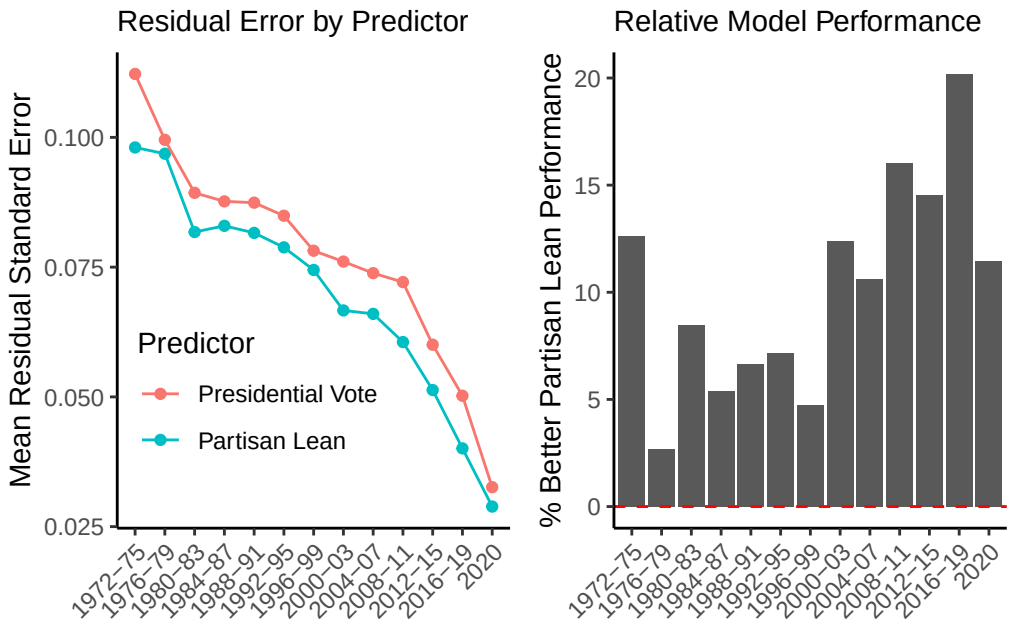

Figure 6: Partisan Lean is a Better Predictor than Presidential Voting

general tendency for districts to vote for one party or another is a better predictor of down-ballot results than Presidential voting. While the forces shaping elections have largely homogenized over time, those forces have not congealed around the presidential election, at least for top-of-ballot statewide elections. In the next section, I extend my analysis to a larger array of statewide offices.

Nationalization in Statewide Contests

While a significant body of research has emerged surrounding the nationalization of senate and governor races over time, a significantly smaller amount of research has been done on contests further down-ballot. Extant research on these races tend to analyze one contest type at a time, such as State Supreme Court of school superintendent contests (Weinschenk et al. 2020; Weinschenk 2022). To fill this gap, I use data from the Voting and Election Science Team (VEST), part of the United States Election Project. These data provide precinct-level results for statewide races from 2016-2020, allowing for a much deeper look at how far nationalization reaches in contemporary U.S. politics. Table 1 gives summary descriptions of the VEST data; across 26 non-presidential contests, I analyze 300 state-contests and 476 unique contests. For comparability, I limit my analysis to partisan contests in general elections with at least one Democratic candidate and one Republican

candidate. Results from these data give us a deep cross-sectional look into how nationalization acts as a homogenizing force in present-day politics.

Table 1: VEST Data Summary for Statewide Races

Office	Number of States	Total Contests
Federal		
US Senator	48	99
US House (At Large)	7	19
Total	55	118
State Executive		
Governor	49	62
Attorney General	39	49
Secretary of State	33	41
Treasurer	29	35
Auditor	20	25
Lieutenant Governor	16	20
Public Service Commissioner	5	15
Insurance Commissioner	8	11
Agriculture Commissioner	9	10
Superintendent of Public Instruction	7	9
State Controller/Comptroller	7	8
Commissioner of Public Lands	4	5
State University Regent	2	5
Labor Commissioner	3	4
Railroad Commissioner	1	3
Chief Financial Officer	1	1
Commissioner of School and Public Lands	1	1
State Board of Education	1	1
State Mine Inspector	1	1
Tax Commissioner	1	1
Total	237	307
State Judicial		
State Supreme Court	4	21
State Appeals Court	2	21
State Court of Criminal Appeals	1	8
Clerk of the Supreme Court	1	1
Total	8	51
Total	**300**	**476**

I estimate the candidate valence and partisan lean effects (μ and β parameters) in an identical process to the over-time application. Each state-four-year interval is estimated separately, starting in 2016 (meaning the 2020 period includes only that year). Because the estimation process assumes consistent voting district boundaries over time, and precincts occasionally change such boundaries, I

use areal weighted interpolation for consistent geographies over years (see Appendix A3 for details). The resulting parameter estimates are shown in Figure 7. Presidential reference lines are plotted for μ and β at 0 and 1, respectively. I report the absolute values of μ, focusing on the magnitude of the candidate valence instead of the direction. The mean contest-parameter value is given by a cross.[8]

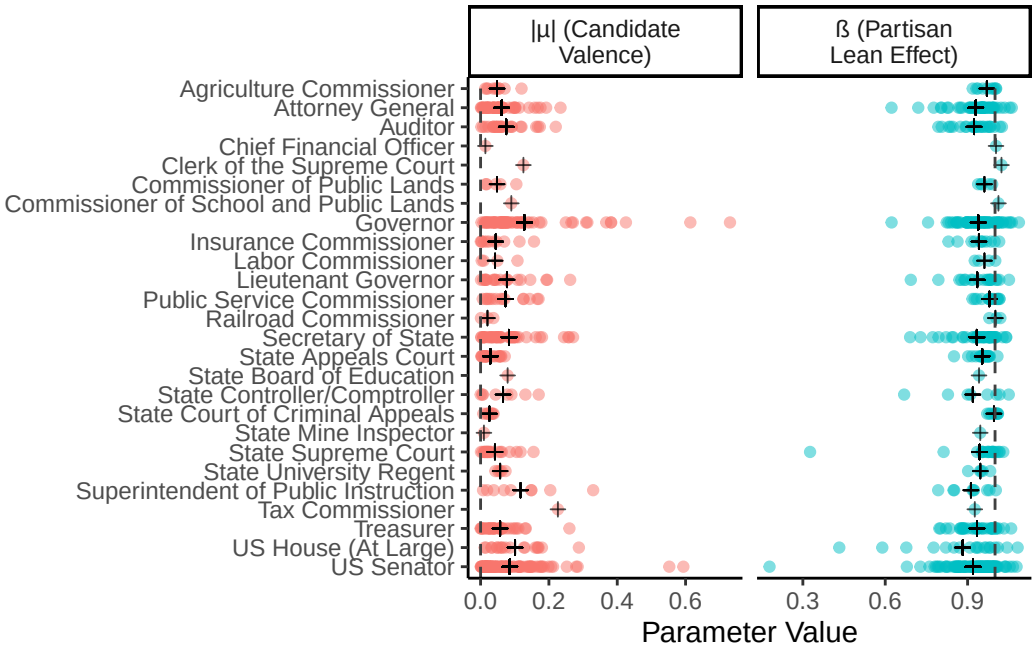

Figure 7: Parameter Values, Statewide Races 2016-20

Overall, mean parameter values across all contests are close to the presidential reference points, with generally limited variation surrounding those points. What variation does exist seems to do so in contests that are either Federal (US Senator and at-large House elections) or typically considered higher-salience elections (Governor, Lt. Governor, or Attorney General). This is consistent with theories of nationalization in which better information access about candidates allows voters to make decisions not based solely on the party identification of the candidates, but also paints a troubling representational picture down-ballot. In the races that are nominally the least like presidential elections (Railroad Commissioner, Public Service Commissioner, etc.), the voting behavior is the most similar. This result supports the formulation of nationalization as a homogenizing partisan force rather than a top-down, presidential force, as the offices with the most direct connections to the

[8] Appendix A4 directly compares my results to those generated by previously-used approaches.

presidency show the greatest amount of variation[9]. When there are few cues other than partisanship to guide decisions, aggregate voting outcomes tend to closely follow partisan preference. As contests become more nationalized, μ and β converge to 0 and 1, respectively. Presidential elections are *not* consistently the elections with the strongest relationship to partisan lean. 77 down-ballot elections have greater partisan lean effects β than their most recent presidential counterparts, of which 13 are contests for governor and 12 for senate.

Certain observations merit closer consideration and explanation. First, consider 2016 Alaskan US Senate election, which is the contest with the lowest partisan lean effect of 0.179 (and corresponding candidate valence of -0.6). Incumbent Republican Senator Lisa Murkowski won the election with 44.4% of the total vote, whereas Democratic challenger Ray Metcalfe received only 11.6% of the vote, placing him fourth behind Libertarian Joe Miller (29.2%) and Independent Margaret Stock (13.2%). It is therefore no surprise the rate at which estimated partisan lean is translated into Democratic votes is very low; many of those votes are not going to the Democratic candidate. This is a consistent feature of the estimation procedure; very successful third-party candidates relative to the third-party candidates in the presidential election can heavily influence the estimated parameters. In the contemporary U.S. context, however, "spoilers" like this are rare. In my sample, the average absolute difference between precinct-level Democratic vote share and two-party Democratic vote share for non-presidential races is only 0.01 (standard deviation 0.02). In the 2016 Alaskan Senate election, this difference was 0.08.

Another outlier is the 2016 North Carolina State Supreme Court election, with partisan lean effect of 0.326 (Democratic candidate handicap of 0.16). The winning Democratic candidate received 54.5% of the final vote, while the incumbent Republican candidate received 45.5%. Likely contributing to the outlier parameter results is the race being officially non-partisan; Democratic and Republican affiliations did not appear on the ballot, although the candidates were officially registered with their respective parties and had known affiliations (which is why I include them in the dataset).

How do the parameters vary across office categories? In Figure 8, I break offices into four categories: Federal (Senate, US House), State Executive - High (Governor, Lieutenant Governor, Secretary of State, and Attorney General: offices that are typically higher salience), State Executive

[9]See Appendix A5 for additional summary descriptions of the parameter estimates.

(the rest of the statewide offices), and State Judicial. I then plot the regression line representing the relationship between partisan lean and vote-share for each election, with the intercept as the absolute candidate valence and the slope as the partisan lean effect.

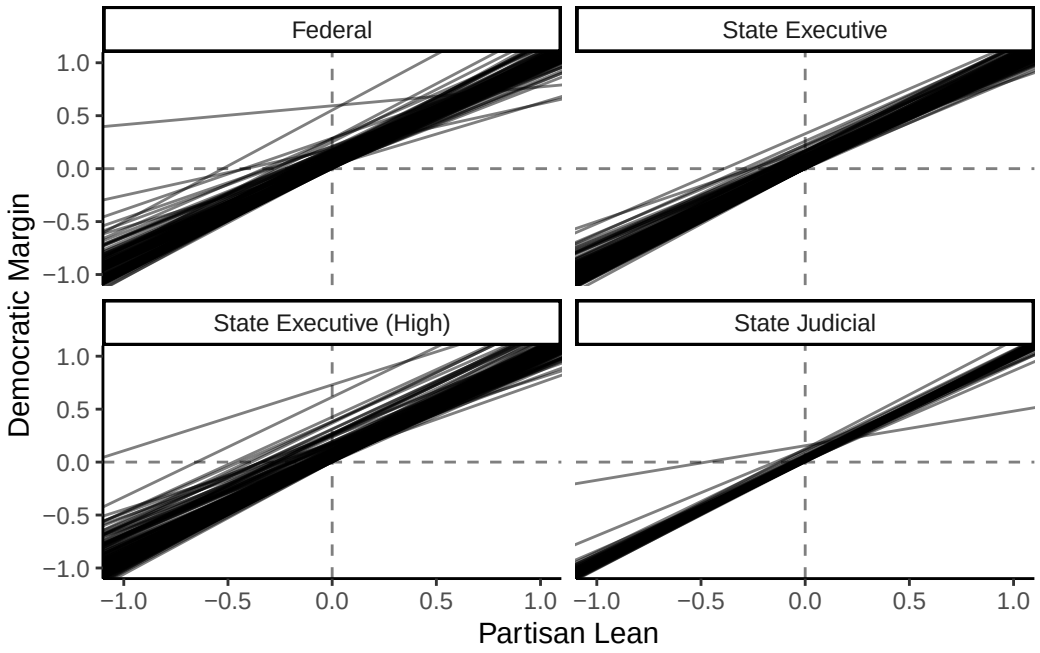

Figure 8: Variation in Election Forces Highest in Higher Office

The results confirm offices generally considered to be of high salience have the largest variation in the elements underlying election outcomes. Federal elections consistently show higher variation in both the intercepts (candidate valence) and slopes (partisan lean effect) of the lines. This matches expectations about high-salience elections; voters have easier access to information about candidate valence, and are also potentially able to make decisions based on dimensions of politics slightly different from simple partisan attachment. Higher state executive offices also show higher levels of variance, but moreso in candidate valence than the effect of partisan lean. Lower state executive offices show significantly less variance. These are typically offices with lower media coverage but still contested with partisan candidates, even if the offices themselves are responsible for fairly narrow policy jurisdictions. The overall conclusion from these patterns at first seems counter-intuitive; the offices least like the presidency have elections results most similar to it, and the offices most like the presidency have the greatest differences in such results. Viewed through the lens of partisanship becoming a stronger organizing force in elections, however, such as result is

expected. Insofar as voters see all politics as primarily related to partisanship and have little other information on down-ballot candidates to make decisions, we should expect variation in election factors to mostly be constrained to the stochastic elements of elections. Additional sources of variation among parameters (incumbency and news media) are discussed in Appendix A8.

Again, these cross-sectional results suggest elections have "nationalized" in that the forces shaping outcomes appear similar to each other across offices and elections. To determine if elections are "presidentialized," I consider two observable implications of presidentialization under my theoretical framework: (1) partisan preference and vote choice should be most tightly linked in presidential contests, and (2) presidential vote share should be a stronger predictor of down-ballot vote shares than partisan lean. Figure 9 shows the results of two analyses measuring those implications. In the left panel, I regress the precinct-level Democratic candidate margin of victory on the estimated precinct partisan lean within all contests in the VEST data and recover the residual standard error. To account for compositional differences in contests between states (where some states hold contests for certain offices but not others), I normalize the RSE within state by dividing by the RSE in the presidential election. I then report the mean normalized residual standard error for each office type as a measure of model fit; the greater the residual standard error, the less variance explained by underlying preference. Compared to other contests, presidential races actually have the second highest mean residual standard error. Mechanically, this means the translation of partisan lean to presidential vote share is not error-less. Other factors beyond the latent partisan dimension are significant movers of vote share. This evidence gives relative support to the understanding of nationalization as the homogenization of election dynamics around a common partisan dimension. The linkage between partisan preference and vote choice does vary across offices, but is generally fairly similar.

In the right panel of Figure 9, I plot two distributions of residual standard errors. The blue distribution is created using my SVD approach to measuring latent preference and mirrors the analysis conducted in the left panel; I regress the Democratic margin of victory in each contest on the latent partisan lean and record the residual standard errors (excluding the presidential races). I again use a cross-validation approach where the summary statistics for any given office is calculated after leaving that office out of the initial estimation of partisan lean. The red distribution is created using the standard bivariate approach to measuring nationalization, where the down-ballot Democratic

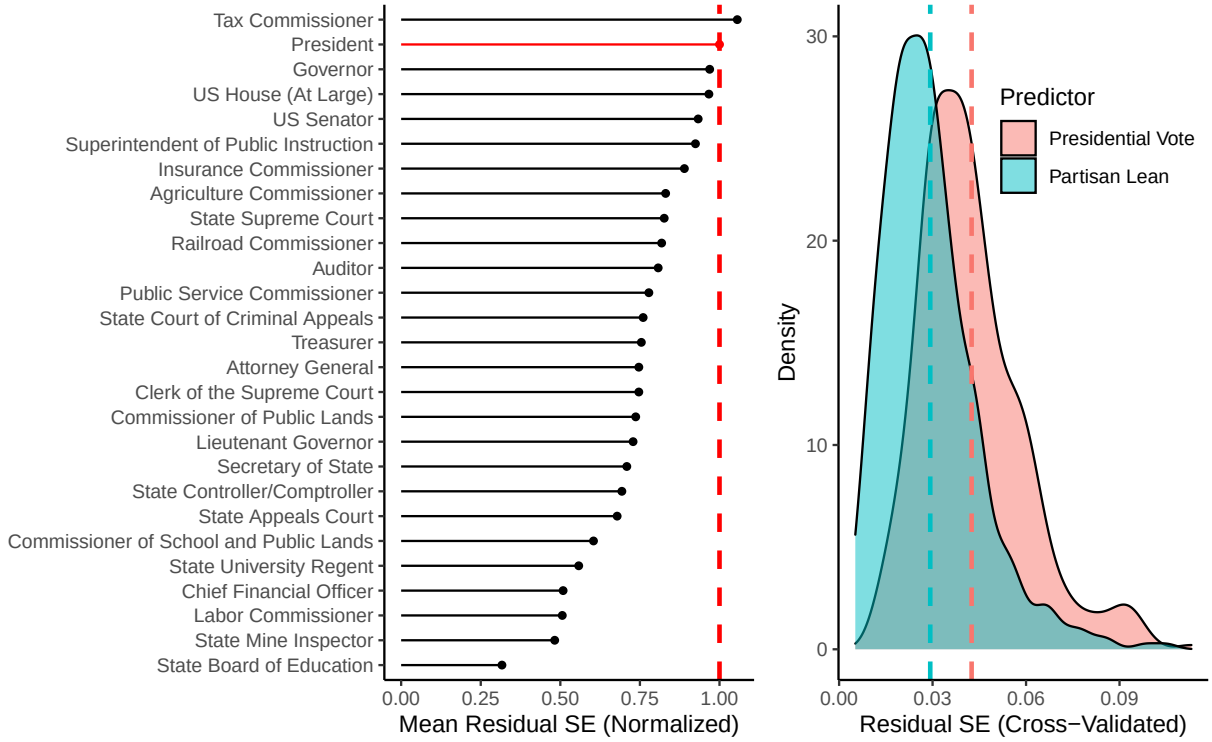

Figure 9: Presidential Elections are the Most Idiosyncratic and Less Predictive than Partisan Lean

margin of victory is regressed on the Democratic presidential candidate's margin of victory. Here I compare how well each measure does in predicting down-ballot vote shares. According to the presidentialization hypothesis, presidential voting should be the strongest predictor and therefore have the smallest residual standard error. The right panel shows this is not the case; the mean residual standard error using latent partisan preference as a predictor is significantly less than the mean residual standard error using presidential voting as a predictor. This again suggests voting behavior is not structured by simple reference to presidential candidates, but by latent partisan preference across all offices.

Nationalization in Local Elections and Ballot Measures

My theoretical framework and methodological approach allow for additional analyses to be performed in a wide array of contexts, data-permitting. In this section, I consider two different applications in a large U.S. county (Maricopa, Arizona), focusing on local-level contests and ballot measures, respectively.

One of the advantages of using precinct-level election results is the ability to make inferences

about local-level contests. I demonstrate this using election data from Maricopa County, Arizona, obtained directly from the county elections department. Maricopa has a number of features making it a particularly useful case study. First, it has become an important swing county in presidential contests over the previous election cycles. Joe Biden narrowly carried the county with 50.1% of the total vote in 2020. Second, it encompasses substantial demographic diversity. The county has a fairly dense urban center surrounded by sprawling suburbs and very rural outskirts. The 2020 Census estimates Maricopa residents are 53.4% non-Hispanic white, and the population has a comparable poverty rate (11.6%) and education rate (33.4% over age 25 with a bachelor's degree) to that of the U.S. as a whole (11.4% and 37.9%, respectively). It is the fourth largest county in the U.S. by population, with over 4 million residents. Finally, it has numerous partisan down-ballot races, making it an ideal candidate county for analysis.

Similar to the VEST data, the Maricopa results span the contemporary period, but this time cover 2008-2020. The data cover seven elections periods (every two years), 19 distinct office categories, and 203 unique contests. I estimate the parameter values similarly to the previous iterations, grouping into 4-year time periods and setting the reference category to the most recent presidential election.

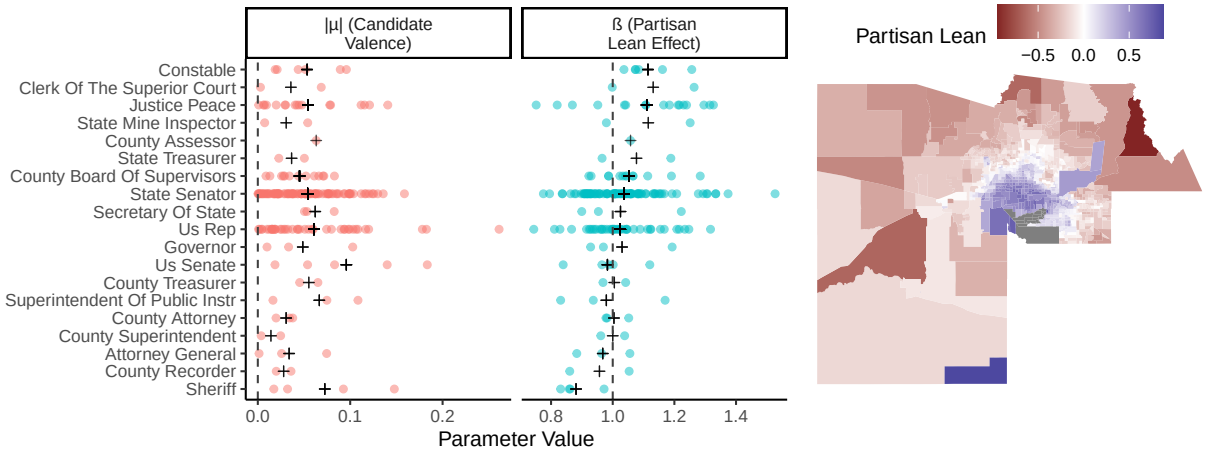

Figure 10: Maricopa, AZ Parameter Estimates, 2008-2020

Figure 10 shows the county-wide results for all partisan races in Maricopa. Similar to the statewide election results, the mean parameter estimates are concentrated around their presidential reference points, but variation exists for many races. State senator elections and U.S. House elec-

tions have some of the widest ranges, although even they tend to fall within 0.2 of the presidential reference point[10]. One election of note is the 2016 county sheriff contest, with the eight-lowest partisan lean effect (β) value (0.83) and sixth-highest candidate valence (μ) value (0.15) of the races analyzed in the county. Democratic challenger Paul Penzone defeated six-term incumbent Joe Arpaio by 11.2 percentage points. Arpaio had become nationally prominent for hard-line immigration stances, was charged with criminal contempt for ignoring a judge's ruling in a racial profiling case, and was a vocal proponent for Donald Trump's presidential campaign. While the race was "nationalized" in the sense that it gained considerable media attention linking Arpaio with Trump, the results were markedly different from the modal partisan contest. This challenges the typical president-centered notion of nationalization where down-ballot contests are tied to presidential outcomes.

The right panel of Figure 10 shows the geographic distribution of precinct partisan lean in the county for the 2020 election. The results align with expectations; the urban center is markedly more Democratic-leaning than the rural outskirts, with a more moderate suburban ring separating the two. Two unique precincts are the more rural but Democratic-leaning precincts to the northeast of the urban core and at the southern edge of the county. These are portions of the Salt River Pima–Maricopa Indian Community and Tohono O'odham Nation Reservation, respectively. The missing geography in gray is an uninhabited area including a nature preserve and the northern edge of the Gila River Indian Reservation.

To determine if local elections are potentially more "presidentialized" than statewide elections, I perform the same set of analyses with the residual errors measured by contest and predictor as in the cross-sectional statewide context. The results are presented in a similar fashion in Figure 11, with almost identical results. Across 12 years of elections and 19 different offices, presidential elections in Maricopa have the third highest mean residual standard error, behind only state treasurer and county sheriff elections. This suggests presidential elections are among the most idiosyncratic in the county, whereas other contests more closely follow a common latent dimension of partisan lean. The story is similar in the right panel of Figure 11; partisan lean is again a significantly better predictor of down-ballot (statewide and local) election outcomes than presidential voting. While

[10] Arizona's lower house uses multi-member state representative districts where the candidates with the two highest vote totals are elected, so I exclude them from my results here.

potentially nationalized, local contests are not presidentialized.

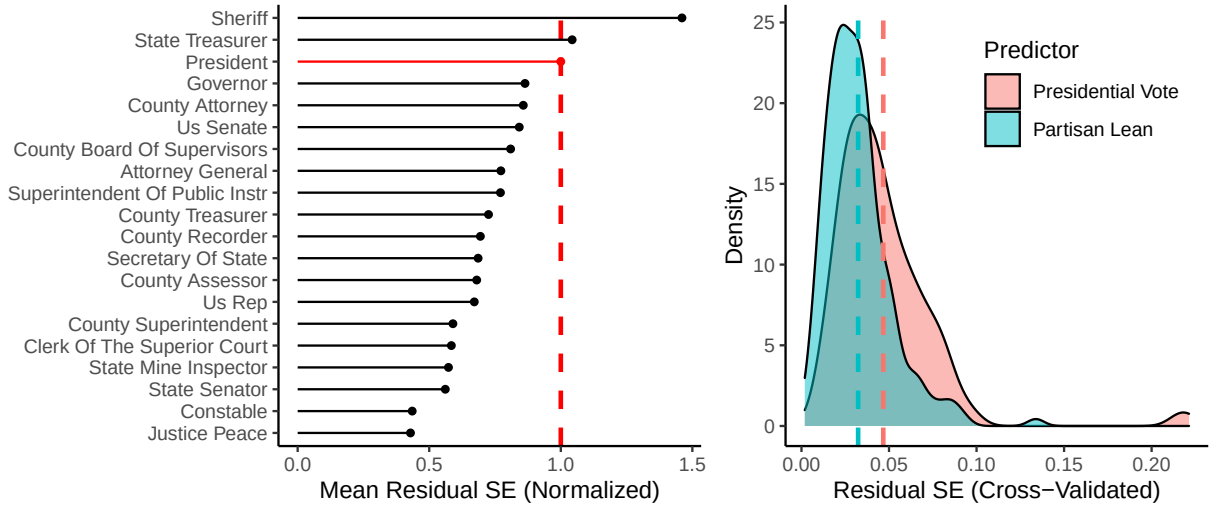

Figure 11: Prediction Error and Predictor Comparison in Maricopa, AZ, 2008-2020

While research of nationalization often focuses on candidate elections, some work has been done suggesting nationalization has policy consequences as well. Burke (2021), for example, finds states with more nationalized election outcomes (measured by regressing the state's two-party vote for Democratic legislative candidates on the Democratic presidential candidate's two-party vote share) have legislative agendas focusing more on divisive national issues (such as abortion) versus local issues (such as education and transportation). This may suggest a high level of elite partisan sorting, but do such dynamics exist in the broader electorate? More broadly, are the political dimensions underlying candidate and policy questions similar?

Because the decomposition approach yields a precinct-level measure of partisan lean, I am able to analyze outcomes of ballot measure contests in manner similar to candidate contests. Instead of using the two-party margin of victory for the Democratic candidate, I can just use the "Yes" margin of victory for any particular proposition. This gives the resulting parameters slightly different interpretations. The partisan lean effect β can still be interpreted as a translation of partisanship, but the translation is of partisan lean into "yes" votes. This means more Republican-leaning ballot measures will have a negative slope. The candidate valence μ becomes a "yes" valence, or how far ahead the "yes" position is when precinct partisan lean equals zero. For simplicity, I present the absolute value $|\mu|$ as a measure of valence magnitude.

I apply the approach to 38 statewide propositions in Arizona from 2008-2020, using precinct-level results from Maricopa County. These propositions cover a range of policy dimensions, including the legalization of marijuana (propositions 203, 205, and 207), the legal definition of marriage (102), payday loan industry regulation (200), and the right to hunt (109). Many of these propositions don't align neatly with preexisting partisan splits. For full descriptions of each proposition, seen Appendix A8. To determine how closely proposition outcomes track candidate-election outcomes, I use the predicted precinct-level partisan lean estimated using all partisan elections from above as the predictor variable for the precinct-level "yes" margin of victory. This yields the slope parameter as the partisan lean effect β and the intercept as the valence μ. The results are shown in Figure 12, with successful propositions shown in green and failed propositions in red[11].

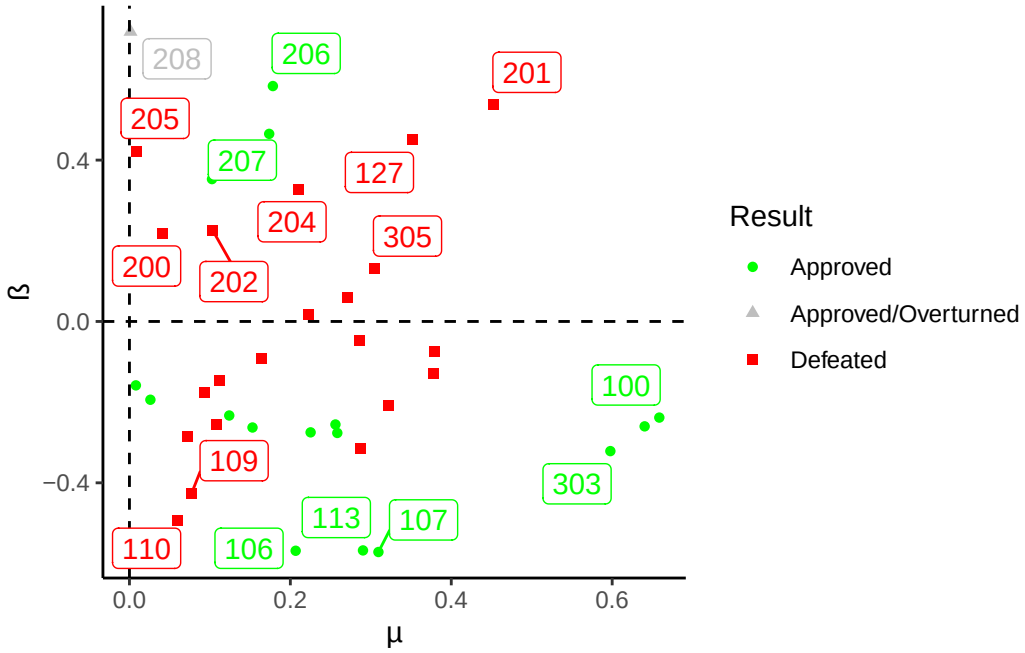

Figure 12: Statewide Proposition Results, Maricopa, AZ, 2008-2020.

The results in Figure 12 show a very different set of outcomes relative to candidate contests. Most obviously, the range of outcomes for $|\mu|$ and β have changed dramatically. The valence parameter $|\mu|$ now ranges from 0 to above 0.6, a much broader range, while the partisan lean effect β ranges from roughly -0.6 to 0.5, a broad range but one that falls well short of the rate at which partisan lean was translated into Democratic candidates votes in candidate elections. This suggests that

[11] One proposition (208) increasing taxes on individuals making more than $250,000 to fund an increase of teacher salaries was later ruled unconstitutional by the Arizona State Supreme Court.

individual issues, especially at the state level, have a much looser connection between partisan lean and positions on the issues themselves. Certain propositions do have relatively high/low partisan lean effects, such as Proposition 106 ($|\mu| = 0.2$, $\beta = -0.57$), which prohibited rules against participation in specific healthcare, and Proposition 107 ($|\mu| = 0.3$, $\beta = -0.57$), which banned preferential acceptance to public employment (seen as an affirmative action ban). Both of these have clearer national party positions, but even these more extreme values fall short of most preference modifiers in candidate elections.

While the parameter estimates are substantially different between candidates and ballot measure contests, the estimates for precinct-level partisan lean are not. Using the SVD approach, I separately estimate the precinct partisan lean for all precincts in Maricopa, Arizona in the time intervals 2008-11, 2012-15, 2016-19, and 2020 using two sets of contests: (1) all partisan candidate contests and (2) all ballot measures. I include the most recent presidential contest in each as the reference point. The correlation between the precinct partisanship estimates is 0.98, suggesting a strong latent dimension of preference underlying both sets of contests. This continues to be the case even when using a non-presidential race as the reference point for the ballot measure estimation process; if I include county sheriff in the ballot measure estimation instead of the presidential contest, the correlation stays remarkably high at 0.94. Even if I remove the sheriffs' race from the candidate contest estimation altogether and compare entirely disjoint sets of contests, the correlation remains 0.94. This point bears emphasizing; with my decomposition of votting patterns, I obtain highly correlated estimates for precinct-level preference over a 12-year period using a set of partisan elections (for offices as different as President and Justice of the Peace) and a set of ballot measures (with questions ranging from same-sex marriage to the salaries of state legislators) with no explicit partisan labels.

How do the partisan lean estimates derived from ballot measures perform against presidential voting when predicting vote margins? In this context, the evidence is mixed. I perform similar analysis to those performed previously in Figure 9, comparing the performance of presidential voting and partisan lean derived from ballot measure behavior as predictors. The distributions of the residual standard errors across all contests are plotted in Figure 12, with the dashed vertical lines representing the mean values for each estimation method.

Presidential voting slightly outperforms the partisan lean estimates derived from ballot measure

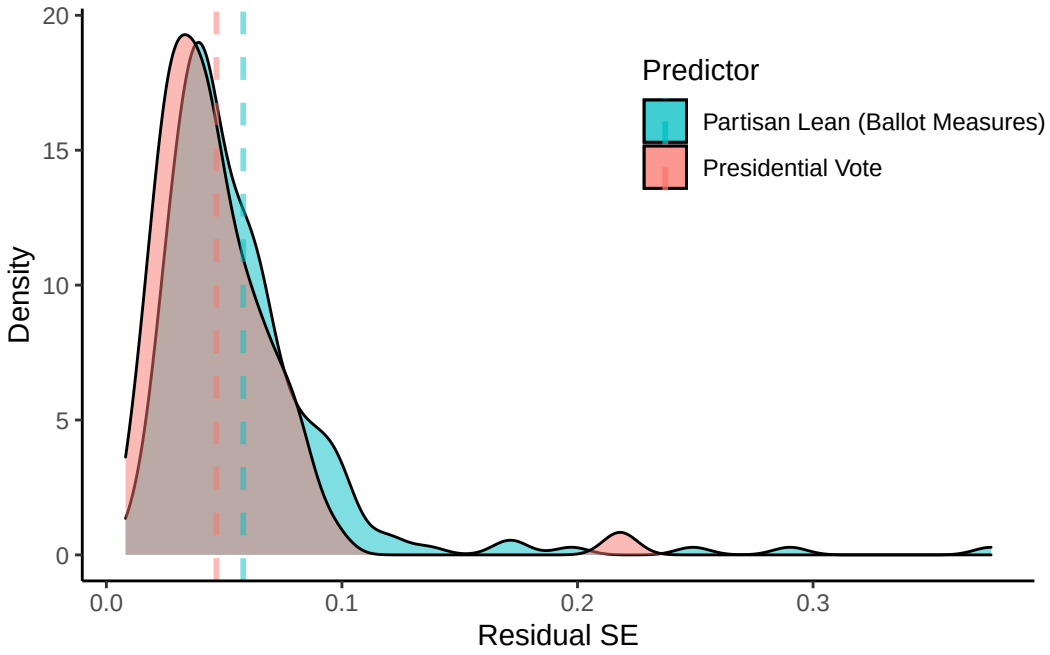

Figure 13: Presidential Voting Outperforms Ballot Measures as a Predictor of Downballot Results. Maricopa, AZ, 2008-2020

results. This is true across all office categories except for constable, although the differences between the two estimation processes are most pronounced in county-level offices and most similar in statewide offices. Given the SVD estimation process is using data devoid of partisan labels (besides the presidential reference point), however, the similarity between the two distributions is quite striking. It is not entirely unexpected that the ballot measure estimates may yield a dimension of preference slightly different to the partisan dimensions that structure behavior in partisan contests. Indeed, the questions considered in many of the ballot measures are not obviously partisan in nature, and the precinct-level partisan leans are estimated using relatively few ballot measures per interval of time (38 propositions across 12 years). As expected, when I compare the accuracy of the ballot-measure SVD preference estimates versus presidential vote shares when predicting ballot measure outcomes, the ballot measure approach significantly ($\alpha = 0.001$) outperforms the bivariate approach.

Substantively, these results suggest the contours of political behavior in ballot measure contests are slightly noisier and less well-defined than such behavior in partisan contests. In that sense, behavior in such contests is less "nationalized" than behavior in partisan contests, as the dimensions

over which such issues are contested have yet to completely homogenize around partisan lean. This is likely partly due to the issue-specific nature of ballot measures. Where partisan contests are inherently "bundled treatments" insofar as candidates and their parties take positions on multiple issues, ballot measures simply ask voters to respond yes or no to a single question, inviting higher variance in behavioral outcomes. However, while beyond the scope of this paper, the results suggest the partisan leaning of a district is not devoid of policy preferences. Insofar as the dimensions of politics underlying both candidate and policy suggestions are fairly similar, it seems more likely the policy dimension informs partisan decisions than partisan attachment informs non-partisan policy behavior.

Discussion and Conclusion

The results of this paper provide a more theoretically grounded and substantively holistic picture of nationalization in contemporary U.S. politics using data from the most granular level of aggregation possible in the measurement of true voting behavior. The over-time descriptive results demonstrate how the alignment of presidential and down-ballot results is largely a function of decreasing variability in how preference is translated into votes rather than (1) purely top-down influence from presidential candidates or (2) the sole homogenization of candidate effects. The results for statewide contests from 2016-2020 show the current reaches of nationalization, with both candidate and preference effects being very similar on average across all offices. I find evidence supporting the conclusion that partisanship has become a stronger organizing force across all US politics. My results also belie substantial variation. While this variation is limited in comparison to previous periods of U.S. politics, it allows us to consider cases where the connection between partisan preference and vote choice is weaker. These results extend to even the furthest of down-ballot races analyzed in Maricopa, Arizona. Overall, all contests, from county recorder to President of the United States, are explained by similar translations of partisan preference to vote choice and fairly minimal candidate-level effects. Future work should expand the set of elections to include more years of statewide contests and a greater diversity of local contests, with the latter allowing for a more granular consideration of sources of variation in nationalization.

While all elections appear as manifestations of similar forces, presidential elections appear as some of the most idiosyncratic in U.S. politics. They are some of the noisiest elections with regard

to

These results invite a deeper conversation about the representational consequences of nationalization. The primary concern of research on nationalization is one of accountability; if voters are making decisions for state and local offices using criteria unrelated to the demands of the office or the qualities of the candidates, how can elected politicians be held electorally accountable? This is fundamentally a concern about the performance of U.S. federalism and voters' ability to navigate a slate of offices ranging from President to local dogcatcher[12]. Evidence is mixed on voters' abilities to assign functional responsibility of certain policies to the appropriate offices (Arceneaux 2006; Brown 2010; de Benedictis-Kessner and Warshaw 2020; Maestas et al. 2008). It is more than understandable voters cannot name the responsibilities of the dozens of office contests they vote in, let alone name the positions taken by particular candidates.

Using partisan identification as a heuristic in this situation seems natural. My results suggest this is generally the case across all offices; underlying partisanship translates into votes in an almost one-to-one manner regardless of contest. The deeper question is whether such a dimension is *appropriate* for choices in these elections. While the case could be easily made many facets of state and federal politics are correlated (and the issue domains themselves permeable), such claims become more tenuous at more local levels of government and especially in more specialized office capacities. Tausanovitch (2019) poses the question of why subnational governments are so responsive despite their many institutional and behavioral afflictions: off-cycle elections, low turnout, sparse information, and issues that don't neatly fit on a simple left-right issue dimension. Perhaps the answer is the dimensions of subnational and national politics are sufficiently correlated to produce representation without knowledgeable accountability. The adage "there is no Republican or Democratic way to collect garbage" is not entirely accurate; Democrats may be more willing to dedicate larger portions of the municipal budget toward trash collection, or Republicans may prefer a privatized garbage collection arrangement. Future work should explore the ideological connection between nationalization and policy representation in greater depth and consider the consequences of potential "representation by mistake."

My results raise a related question: what are the consequences of persistent variation in *candidate*

[12]Until March 2019, town dogcatcher was still an elected position in the town of Duxbury, VT. The last officeholder was a 15-year incumbent.

valence effects for quality representation? These effects persisted (at least for gubernatorial and senatorial elections) since 1974 and pose a complicated problem for representation. If the partisan dimensions on which voters are making decisions for down-ballot office are inappropriate for the offices in question, we would perhaps prefer to see greater candidate effects. However, if these effects are informed by equally dubious facets of politics or require sufficient candidate-specific information in low-salience elections, what are the consequences for representation? Future work should consider additional sources of variation in these effects, such as campaign dynamics, endorsements, and candidate demographics, and investigate their connections to representation.

In conclusion, the results of this paper raise important questions regarding the quality of representation and performance of federalism in U.S. politics. By considering separately the partisan and candidate-level dimensions of contests across a variety of contexts and time periods, we are better able to understand the fundamental drivers of mass voter behavior. Future avenues of research are plentiful in regard both to theoretical advances and advances in data availability, and should be pursued with renewed interest.

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Appendix

A1: Summary of Previous Research

Table 2: Nationalization Literature

Author	Year	Main DV	Main IV	Method	Offices	Timeframe
Abramowitz and Webster	2016	Party loyalty; Dem 2-party vote share	Feeling thermometer; Dem Presidential 2-party vote share	Regression; Correlation	Senate; US House; State House	1972-2014
Amlani and Algara	2021	Dem 2-party vote share	Dem Presidential 2-party vote share	Regression (Spatial Lag)	Senate; Governor	1872-2020
Hopkins	2018	Dem 2-party vote share	Dem Presidential 2-party vote share	Regression	Governor	1928-2014
Jacobson	2015	Standard deviation of district inter-election vote swings; Dem 2-party vote share	Dem Presidential 2-party vote share	Proportions over time; Correlation	Senate; US House	1952-2014
Jacobson	2015	Incumbency advantage; Split-ticket voting; Shared variance	NA	Proportions over time	US House	1952-2012
Knotts and Ragusa	2016	GOP 2-party vote share	Presidential approval	Regression	US House (special elections)	1995-2014
Moskowitz	2021	Split-ticket voting	Percent of Media Market In-State	Regression (Causal)	Senate; Governor	2012-2016
Sievert and McKee	2018	Dem 2-party vote share	Dem Presidential 2-party vote share; incumbency	Regression	Senate; Governor	1980-2015
Weinschenk	2022	Dem 2-party vote share	Dem Presidential 2-party vote share	Regression	Superintendent of Public Educaiton	2000-2021
Weinschenk et al.	2020	Dem 2-party vote share	Dem Presidential 2-party vote share	Regression	State Supreme Court	2000-2018
Zingher and Richman	2018	State legislative partisan balance	Relative national polarization	Regression	State House	1994-2014

A2: MCMC Estimation

The singular value decomposition approach is just one of many techniques that could be used to estimate parameter values for the linear model provided in the paper. Alternatively, one could estimate these parameters using Bayesian techniques via Markov Chain-Monte Carlo. I do so for a subset of state-periods below.

I perform MCMC estimation using Stan via CmdStan 2.29.2 with the following priors:

$$\alpha \sim \text{Normal}(0, 1)$$
$$\beta \sim \text{Normal}(1, 0.5)$$
$$\text{Partisan Lean} \sim \text{Normal}(0, 1)$$

with a flat prior over the variance parameter σ for DemMargin. Similar to the SVD approach, I set $\alpha_{president} = 0$ and $\beta_{president} = 1$. Using 4 parallel chains with 2000 warmup iterations and 4000 sampling iterations, the estimation process takes 1489 seconds to estimate the 21 non-presidential 2016-2019 North Carolina contests (the most of any state-period). The resulting α and β parameters are plotted in Figure 14 below against the same parameters estimated via singular value decomposition:

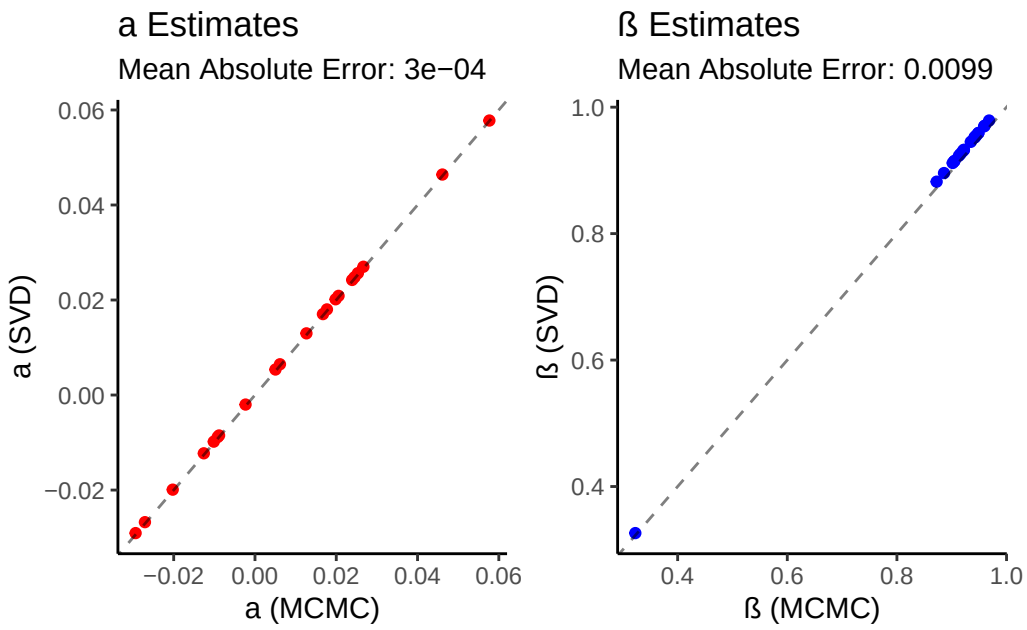

Figure 14: MCMC vs. SVD Estimates for North Carolina 2016-2019

The estimates are nearly identical, indicating either estimation strategy can be use. The advantage of the SVD approach, however, is speed. The SVD approach takes less than 2 seconds to complete the same process. Because MCMC becomes inefficient with large numbers of parameters (such as all of the precinct partisan lean estimates), SVD is the obviously preferred method.

A3: VEST Precinct Cleaning

VEST provides shapefiles of precinct-level election data for statewide races between 2016-2020. Unfortunately, precinct boundaries often change (albeit slightly) between election years, making the consistent estimation of precinct-level partisan lean and its effects on vote shares more challenging. To provide constant precinct identifiers for the 2016-2020 period, I use areal weighted interpolation to estimate the number of votes received by Democratic and Republican candidates in each statewide contest in the voting precincts defined during the 2020 redistricting cycle. This allows me to say each precinct observation refers to the same geography in 2020 as it did in 2016, something that would not be possible otherwise.

Areal weighted interpolation involves 4 steps, performed by the R package areal. These steps are documented in greater detail in Prener, Revord, and Fox (2022), but explained briefly here. In the first, areal calculate the intersections of the source (original VEST data) and target (2020 redistricting results) shapefiles. The target shapefiles are drawn from the US Census Bureau via the R package tidycensus. Areal weights are calculated in the second step, such that:

$$W_i = \frac{A_i}{A_j}$$

where W_i is the areal weight for intersected feature i, A_i is the area of intersected feature i, and A_j is the total area of source feature j.

In step 3, areal estimates the population value E of the intersected feature i:

$$E_i = V_j \cdot W_i$$

where V_j is the population value for source feature j. These estimates are then summarized in step 4 to create the sum of estimated values G for target feature k:

$$G_k = \sum E_{ik}$$

where E_{ik} is the estimated values from the intersected features in i within target feature k.

Areal weighted interpolation makes one important assumption about the precincts; population is distributed uniformly within precints. We know, of course, this is not true. However, given the relatively small changes in precincts from year-to-year and the generally small precinct sizes, the relative gains of more complex areal interpolation methods such as Curiel and Steelman (2018), who overlay the source and target shapefiles atop a smaller grid of atomic-level Census geography, are minimal.

A4: Comparison to Previous Work

An important question is how do the results yielded from the decomposition approach differ from those yielded by previous work and, perhaps more importantly, where do those differences arise. In Figure 15 below, I plot my α and β estimates for the gubernatorial elections from the Amlani and Algara (2021) county-level data, 1972-2020, on the y axis. On the x-axis, I estimate the same values using the most common approach of regressing the down-ballot Democratic candidate's two-party vote share on the Democratic presidential candidate's two-party vote share, plotting their respective intercept and slope values against my own. Typically, the intercept parameter is unreported or analyzed, but because the two linear forms are comparable, it is useful to see the connection.

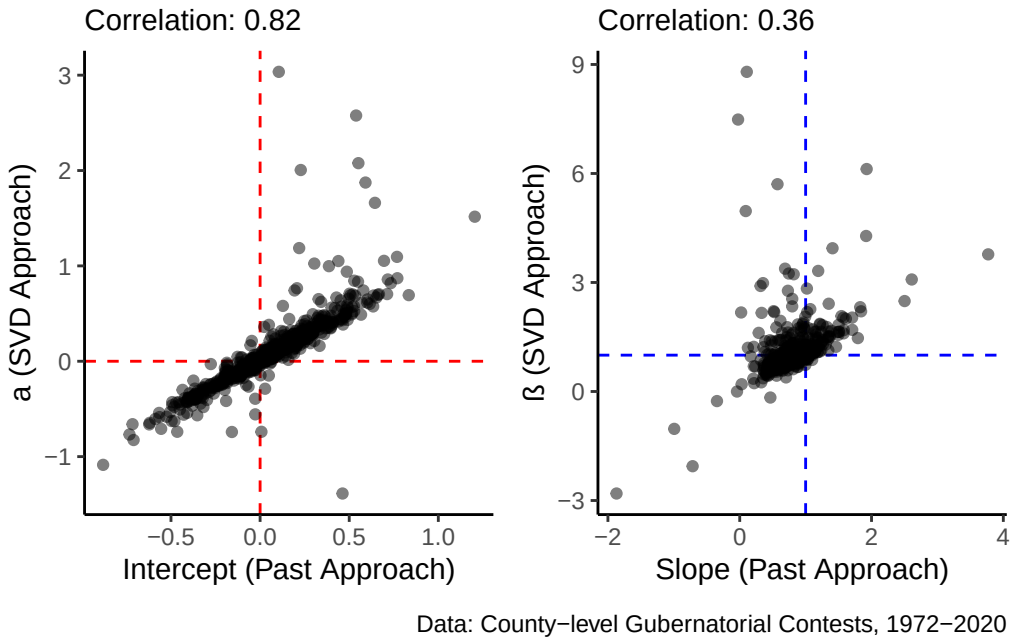

Figure 15: SVD Approach vs. Past Approach Results

Because both approaches share the same linear form, the results have an expected correlation, especially among the α/intercept parameters. The range variance of values from the decomposition approach is greater, and one could ask if that additional variance offers any more information than the linear approach. I'll consider some of the more extreme off-diagonal estimates from the decomposition approach. For example, in the right panel, the highest value of β is 8.8 for the 1978 Alabama gubernatorial election between Democrat Fob James (winning 72.6% of the total vote) and Republican H. Guy Hunt (25.9%). In the previous 1976 presidential election, Jimmy Carter carried the state with 55.7% of the total vote compared to Gerald Ford's 42.6%. The simple bivariate regression method used in previous research yields a very different slope parameter of 0.11, giving the impression the two are unrelated. As it relates to preference, however, this would be an inaccurate conclusion, and one that masks a deeper dynamic. While the vote shares may be unrelated, that does not necessarily mean there is no structure in the underlying variance. Figure 16 documents this dynamic.

The left panel of figure 16 shows the simple bivariate approach, regressing gubernatorial margin on presidential margin, with the resulting weak relationship in red and the reference one-to-one

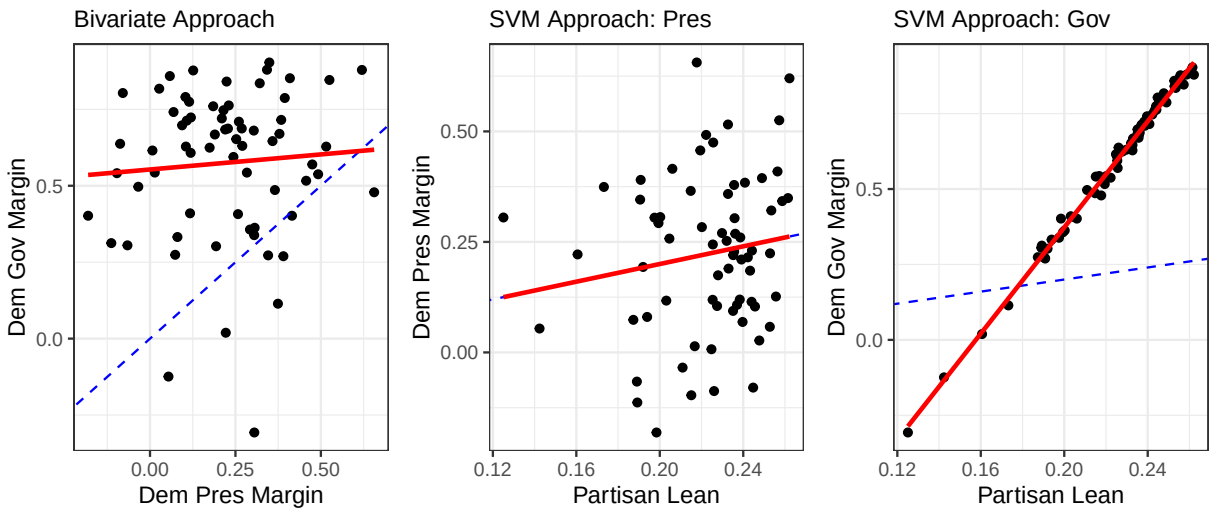

Figure 16: 1978 Alabama Results Comparison

translation of presidential votes to gubernatorial votes (intercept = 0, slope = 1) in blue. In the middle panel, I show the relationship between the same presidential vote margin and the estimated county partisan lean, with the relationship scaled to $\alpha = 0$ and $\beta = 1$, as is done with my SVD approach. Finally, in the right panel, I show the gubernatorial vote margin plotted against the same county-level partisan lean. The relationship, relative to the presidential relationship plotted with the blue line, is much tighter and steeper. This is consistent with our understanding of partisan behavior in the American South during the southern realignment; there was as very tight relationship between preference and vote shares, where the presidential results were often "noisier."

While the realigning South is certainly a major source of high variance in outcomes, differences between the two approaches are not limited to this setting. Consider a more contemporary example from 2008. In 2008, Democratic presidential candidate Barack Obama narrowly carried Indiana with 49.9% of the total vote to John McCain's 48.8%. Democratic gubernatorial candidate Jill Long Thompson, however, lost handily to Republican Mitch Daniels, with 40.1 and 57.8% of the total vote, respectively. The bivariate approach estimates a slope value of 0.81, but my method yields a value of 1.33. Figure 17 shows these differences in more detail.

The results are presented in the same order as Figure 16. While the relationships aren't as dramatic for Indiana 2008 as Alabama 1978, the outcomes still illuminate the relative shortcomings of the simple bivariate approach. In the left panel, the noisiness of the margins, especially at the most Democratic/Republican ends of the distribution, drive a fairly imprecise result, whereas the relationship with latent partisanship in the right two panels is much tighter. Additionally, we can see that the gubernatorial candidate is actually outperforming Obama slightly in the most Democratic-leaning districts, but underperforming in the most Republican-leaning, driving the steeper translation of partisan-lean into votes.

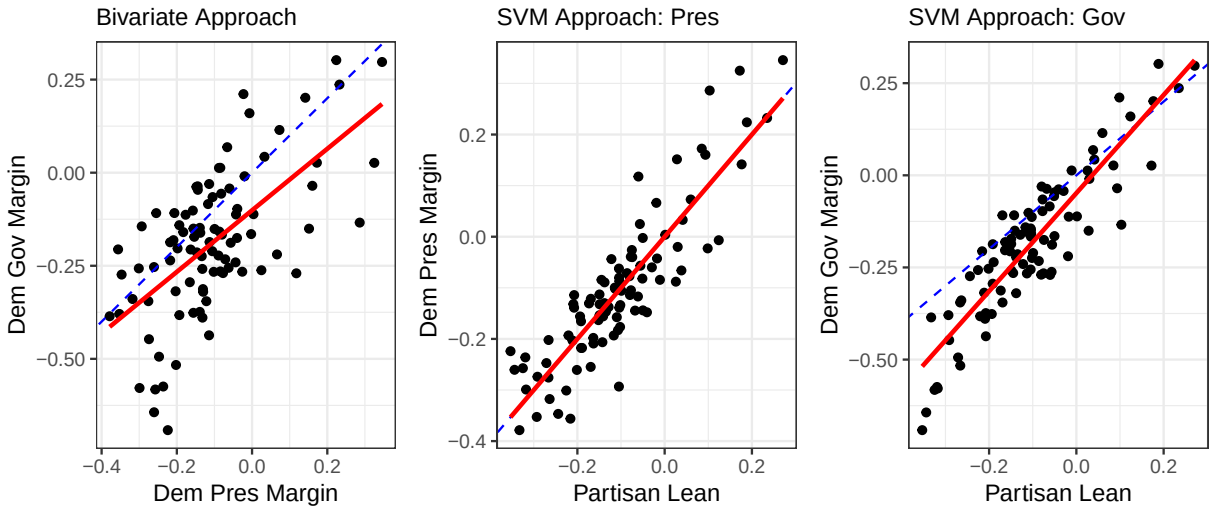

Figure 17: 2008 Indiana Results Comparison

A5: Descriptive parameter results

Figure 19 shows summary descriptions of the estimated parameters, with the top two panels showing the relationship between α and β and the bottom panel showing the distribution of estimated precinct partisan-lean by 4-year interval. The top left panel confirms the hypothesized relationship between the two parameters; greater absolute values of the Democratic candidate handicap are generally associated with smaller preference modifier values ($\rho_{|\alpha|\beta} = -0.49$). Again, this is likely due to α imposing a lower ceiling or higher floor on the performance of Democratic candidates, limiting the remaining variation explained by β. This relationship isn't deterministic, however. Furthermore, the top right panel of Figure A5.1 shows how greater state-level variation in α is associated with greater variation in β ($\rho_{\sigma_\alpha \sigma_\beta} = 0.59$). The results in the bottom panel showing the distribution of precinct partisan-lean demonstrates the relative consistency of the estimates between 4-year intervals. It is important to note that this figure does not show the ideological distribution of the US voting population, just the distribution of precinct partisanship. The tendency for a large number of very small, very Democratic-leaning precincts with Democratic margins of victory over 0.9 to predominate many urban centers accounts for the higher density toward the upper limit of partisan lean[13]. Partisanship in my application is largely a "nuisance" parameter, however, as the main quantities of interest relate to how partisan lean is translated into vote shares.

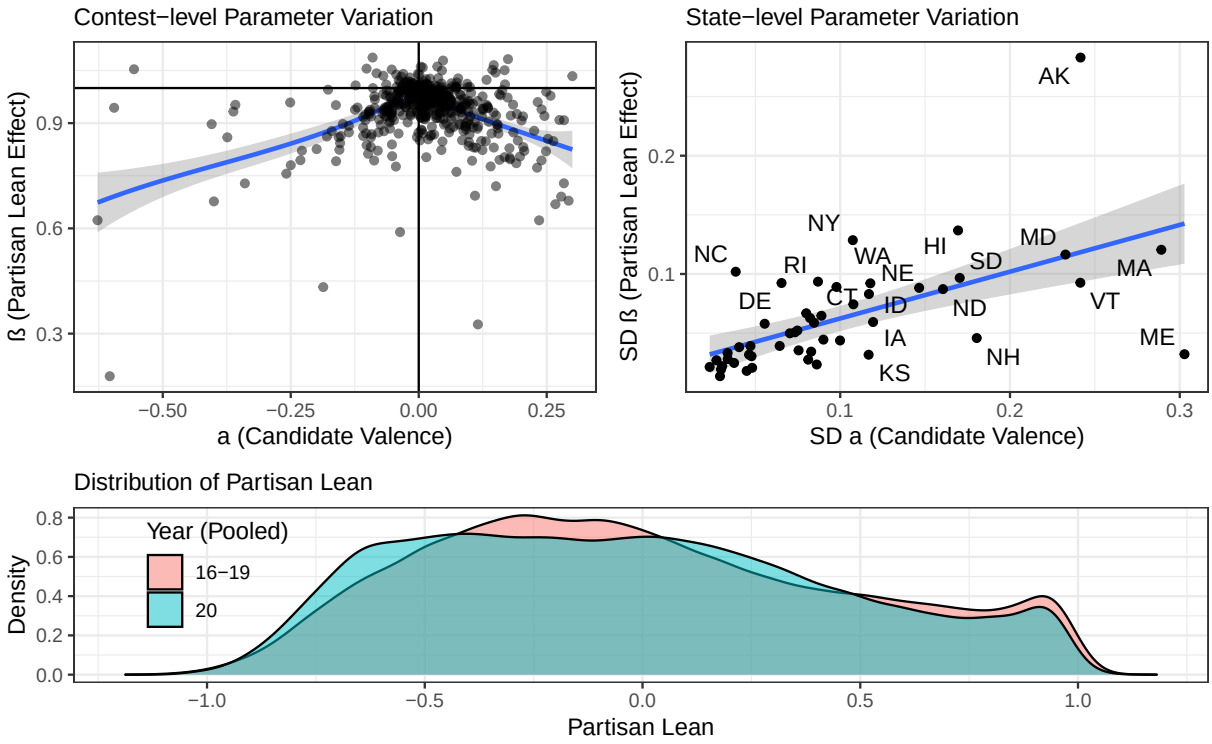

Figure 18: Parameter Variation

[13]These very Democratic and very Republican precincts also lead to limited cases (0.3%) having estimated partisan lean of greater than 1 or less than -1. Because partisan lean is bounded by construction by the range of possible Democratic margins of victory (-1 to 1), these cases are the typical example of predictions for linear models fit for bounded dependent variables lying outside the possible range of the variable. Removing these precincts from the analysis or forcing them to be 1 or -1 does not change the presented results.

A6: Additional model fit diagnostics (normalized)

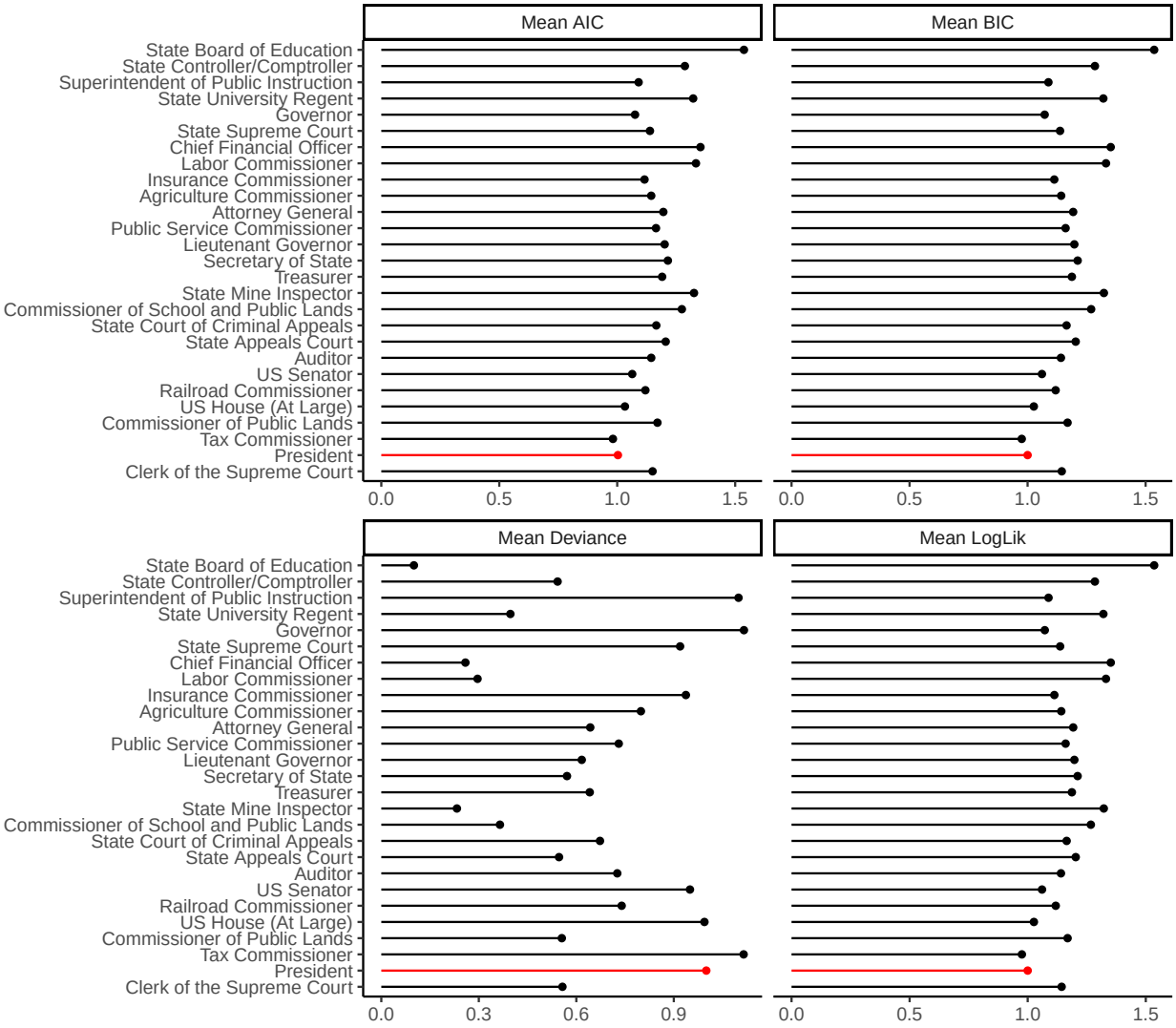

Figure 19: Goodness-of-fit Statistics

A7: Proposition Descriptions

The following table shows the parameter estimates and descriptions for each of the proposition analyzed in Figure 9. These descriptions are provided courtesy of Ballotpedia.

Table 3: Arizona Statewide Proposition Descriptions

Proposition	Subject	Description	Alpha	Beta
100	Taxes	Block enactment of real estate transfer tax	0.535	-0.238
101	Healthcare	Goal: ""Prevent socialized medicine""	-0.002	-0.146
102	Marriage	Marriage is only between one man and one woman	0.098	-0.275
105	I&R	Increase vote needed to approved tax-imposing initiatives	-0.320	0.018
106	Healthcare	Prohibit rules against participation in specific healthcare	0.050	-0.568
107	Affirmative action	Ban preferential acceptance to employment	0.153	-0.571
109	Hunting	Would give a constitutional protection to the right to hunt in Arizona	-0.219	-0.426
110	Natural resources	Authorizes exchange of state trust lands in order to protect military installations.	-0.089	-0.494
111	Admin. of gov't.	Re-name the position of Secretary of State to Lieutenant Governor.	-0.233	-0.256
112	Direct democracy measures	Change petition drive deadline by two months earlier than current deadline.	-0.056	-0.286
113	Labor	Extend the right of Arizonans to use a secret ballot in union elections	0.134	-0.568
114	Law enforcement	Prohibits crime victims from being subject to a claim for damages for causing death or injury.	0.572	-0.260
115	Judiciary	Relating to the modification of the Appellate and Trial Court Commissions.	-0.437	-0.075
116	Taxes	Give tax break to businesses with newly acquired equipment.	-0.157	-0.175
117	Taxes	Limit annual growth in limited property value of locally assessed properties.	0.084	-0.263
118	Budgets	Yearly Permanent Fund distribution to be 2.5% of monthly market values of the fund from 5 previous years.	-0.039	-0.194
119	Property	Lets legislature enact a process to exchange trust land if related to protecting military installations.	0.188	-0.255
120	Environment	Would declare state sovereignty over state natural resources based on the argument of ""equal footing.""	-0.387	-0.207
121	Admin. of gov't.	Implement a top-two style open primary system.	-0.322	0.059

125	Pension	Allow for adjustments to the Elected Officials' Retirement Plan and Corrections Officer Retirement Plan	0.024	-0.158
126	Taxes	Prohibits the government from increasing taxes on services in the future	0.276	-0.276
127	Energy	Requires 50 percent of energy to come from renewable resources by 2030	-0.344	0.450
200	Business	Regulations on payday loan industry	-0.119	0.218
201	Property on the ballot	Minimum 10-year warranty on new homes.	-0.499	0.537
202	Immigration	Penalties on businesses that bypass immigration laws	-0.180	0.226
203	Marijuana	Legalization of medical marijuana	0.038	0.353
204	Taxes	Would renew the sales tax increase approved in 2010.	-0.246	0.328
205	Marijuana	Legalize marijuana for individuals older than 21 years of age	-0.001	0.422
206	Minimum wage	Minimum wage increase; paid sick time	0.184	0.583
207	Marijuana	Legalizes the recreational possession and use of marijuana	0.205	0.465
208	Taxes	Increases the tax on incomes exceeding $250,000 for teacher salaries and schools	0.018	0.718
300	Legislature	Increase state legislative salaries to $30,000	-0.273	-0.093
301	State budgets	Transfer money from a land-conservation fund to the general fund	-0.490	-0.128
302	State budgets	Measure to repeal First Things First education program	-0.418	-0.315
303	Healthcare	Allows terminally ill patients access to medical treatments which have completed phase one of a clinical trial, but are not yet approved by FDA	0.526	-0.321
304	Gov't Salaries	Increases salaries of state legislators by $11,000 to $35,000 annually	-0.343	-0.047
305	Education	Upholds SB 1431, expanding Empowerment Scholarship Accounts program	-0.292	0.131
306	Elections	Designates unlawful contributions from clean election accounts and removes commission exemption from rulemaking requirements	0.141	-0.233

A8: Correlates of Parameter Values

Substantively, the average down-ballot race has similar underpinnings as the presidential race. However, the averages belie substantial variation in the parameter estimates. While there isn't nearly as much variation as in previous decades, there are enough contest-to-contest differences to merit a deeper analysis of their correlates. In this appendix, I utilize common correlates of nationalization in existing research to first validate the measures of nationalization generated by the decomposition approach and, second, examine how the dynamics of the relationships change in down-ballot contests.

A8.1 Incumbency and Candidate Quality

A significant body of research exists regarding how incumbency and generalized candidate quality influence voting behavior, consistently finding the proportion of votes received by incumbent politicians are significantly greater than the number received by the incumbent party if the incumbent does not run (Ansolabehere and Snyder Jr. 2004; Ashworth and Bueno de Mesquita 2008; Gelman and King 1990; D. S. Lee 2008). This literature spans many levels of government, with Ansolabehere and Snyder (2002) finding evidence of incumbency advantage across federal and statewide races and Trounstine (2011) finding similar evidence in city council elections. Many sources of such an advantage have been hypothesized and measured, including office benefits (including fundraising), candidate quality, and opposition candidate deterrence (Fouirnaies and Hall 2014; Hirano and Snyder 2009).

The connection between nationalization and incumbency advantage is noted by Jacobson (2015b); as elections become more party-centered around presidential contests, straight ticket voting increases, and incumbents in opposition-leaning districts have a harder time currying a personal vote. The approach used in this paper yields measures particularly useful in measuring how incumbency influences nationalization; if we understand incumbency as a buffer against more partisan voting, I expect contests with an incumbent running to have greater absolute candidate effects and smaller preference modifiers. I separately analyze the statewide results from 2016-2020 along with the over-time results from 1972-2020 in Figure 20. In the top panel, I regress the estimated parameters on the incumbency status for the contest, which is a factor variable with three levels: no incumbent, Republican incumbent, and Democratic incumbent (effects are estimated in reference to no incumbent). These incumbency data (and later candidate quality data) were gathered manually for all contests in the statewide election data. I control for logged state population and use cluster-robust standard errors at the state-four-year level. I also present an auxiliary measure for nationalization in these results: the break-even percentile of the Democratic candidate. This summary measure takes the value of Partisan Lean$_i$ for the j^{th} contest where the expected Democratic candidate margin of victory equals zero $\left(\frac{-\alpha_j}{\beta_j}\right)$ and reports the percentile of that value in the national distribution of precinct partisan lean in that four-year interval.

The results in the top panel support the hypothesized relationship between incumbency and preference. For both Democratic and Republican incumbents, the candidate valence and break-even percentile move in the expected direction; Democratic (Republican) incumbents have greater (smaller) valence μ and smaller (greater) break-even percentiles in partisan lean. The estimate for candidate valence for Democratic incumbents is only statistically significant at $\alpha = 0.1$, however. Contests with Democratic incumbents also have a smaller partisan lean effect β than contests without incumbents, while contests with Republican incumbents have no such difference. This preference-modifying difference between Democrats and Republicans is consistent with Jacobson's (2015) finding that the decline in incumbency advantage has been most acutely felt by Democrats,

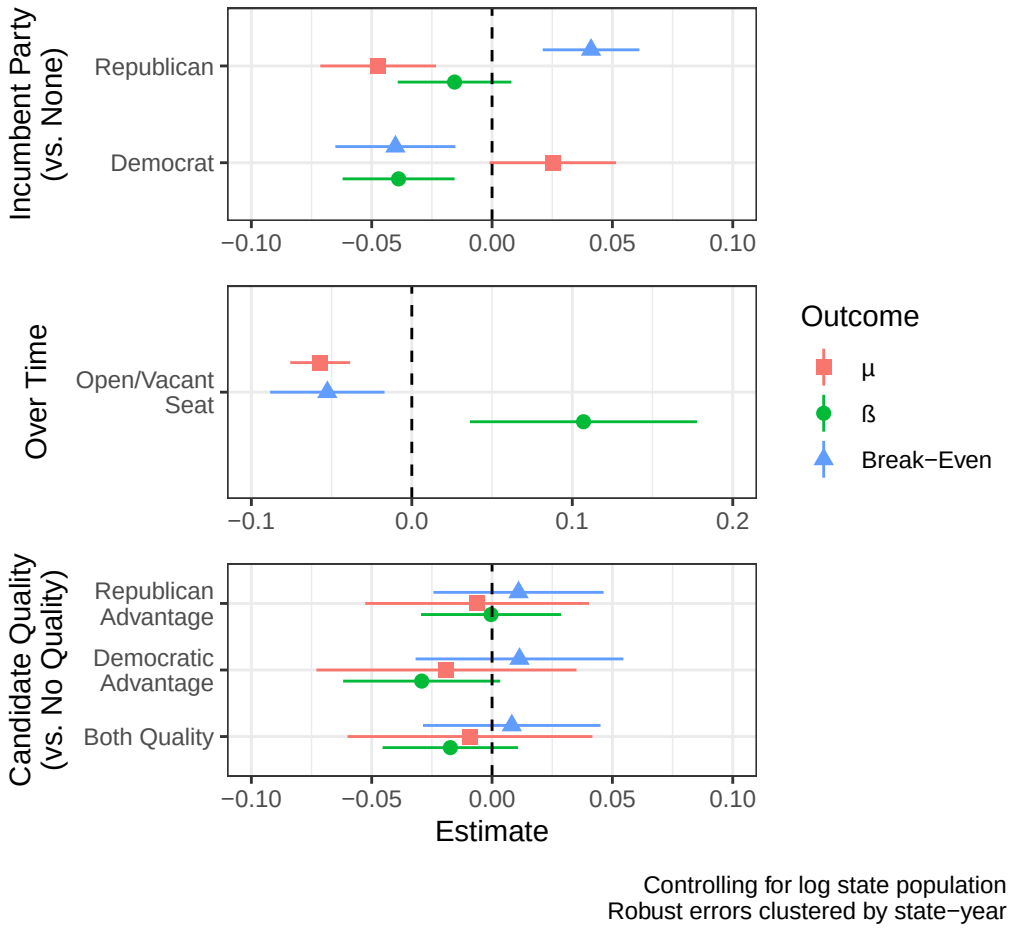

Figure 20: Incumbency and Quality Results

who had held elected office in more "uncongenial" districts than Republicans. My results suggest this relative decline of Democrats is not due to lopsided candidate effects, but the closer alignment of down-ballot voting behavior with partisan preference.

In the second panel, I consider the over-time data for senate and governor contests from 1972-2020. Because the data are coded as a simple binary measure of whether the seat is open or vacant (no incumbent running) instead of a party-specific factor, it is necessary to appropriately scale the outcome variables such that I am measuring the absolute magnitude of the effect instead of the direction, which will vary by party. For μ I simply take the absolute value of the effect. For the break-even percentile, I take the absolute difference of the original value and the break-even partisan lean percentile of the reference presidential candidate. This can simply be interpreted as how different the break-even precincts are in terms of partisanship for down-ballot and presidential candidates; smaller differences indicate candidates breaking even at relatively similar levels of partisanship. I control for the lagged parameter value and a binary indicator for Southern states. The results are similar in the top panel. In open seat elections without incumbents, absolute candidate valence and break-even percentiles are less than in races with incumbents, and the partisan lean effect exerts a greater effect.

Finally, in the third panel, I consider a specific characteristic of candidates thought to operate similar to/within incumbency advantage: candidate quality. As Carson, Engstrom, and Roberts (2007) note, candidate quality is most obviously understood as the ability of such candidates to be skilled and well-known campaigners. I again consider this phenomenon in the 2016-2020 statewide contests, subsetting to open seats to determine the independent effect of candidate quality from incumbency[14]. I code candidate quality similarly to incumbency, noting which party has the "advantage" in quality in the contest and using cases where neither candidate is a quality candidate as the reference level, where quality is defined as having previously held elected office. The results are insignificant across all outcome variables and notably more imprecise due to the relatively low number of cases (143) with no incumbent.

In incumbency results merit deeper exploration, and the variety of offices covered by the statewide election data allow for such analyses. In Figure 21, I split the effect of incumbency by office type using the four previously discussed categorizations: Federal, State Executive - High, State Executive, and State Judicial. The same regression analysis split by office category is shown in the left panel. In the right panel, I plot the distribution of μ and β parameters, split by office category and incumbent party, to visualize the variation in results.

hile more imprecise, the results suggest the benefits of incumbency are realized most dramatically in higher levels of government and mostly by Democrats. Variation in the federal incumbency advantage is the greatest, with the largest average effect sizes and significant values across all outcomes except μ for Democrats. The benefits of incumbency start to dissipate as we move further down-ballot. The benefits for Democrats still exist in lower-salience state executive contests, but the effects disappear completely for Republicans. In state judicial races, there is some evidence for anti-incumbent effects for Democrats, but the results are only marginally significant and estimated on data with fairly low levels of variation (as show in the right panel). This pattern coheres with the over-time results presented by Ansolabehere and Snyder (2002); the benefits of incumbency have tended to move in parallel across offices, but are strongest in the upper levels of government. This

[14] Carson, Engstrom, and Roberts (2007) use a two-equation approach with lagged indicators for incumbent party and candidate quality to consider the effect of candidate quality in both open and non-vacant seats. In my application, I lack the over-time data to estimate such a model with sufficient precision, as the four-year terms beginning in 2016 end in 2020, meaning I would only have one year of observations. This is also why I am unable to employ the regression-discontinuity designs used by D. S. Lee (2008) and Trounstine (2011) for causally estimating the effects of incumbency. As more precinct-level data become available, these methods will become more plausible.

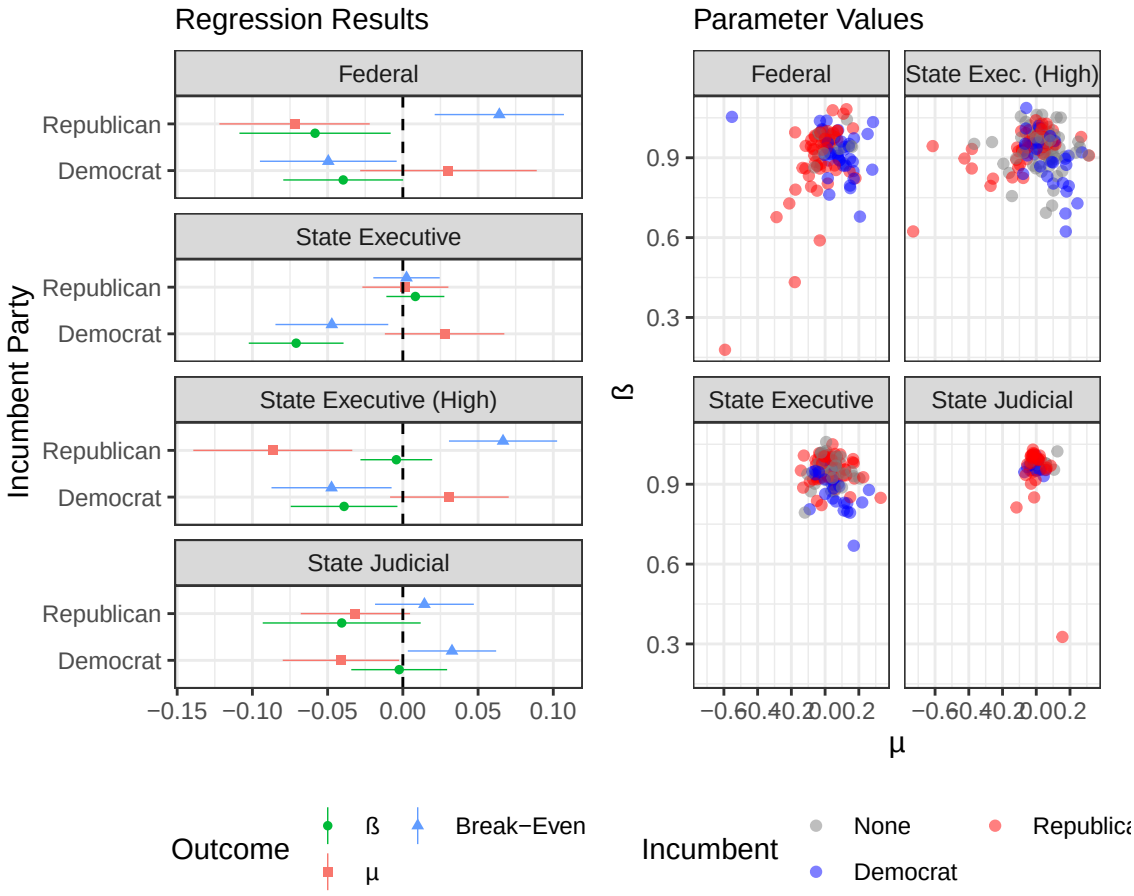

Figure 21: Incumbency Results by Office Type

matches our theoretical understanding of how incumbency influences vote choice. If incumbency affords candidates access to the benefits of office and an indicator of quality, then more prestigious and powerful positions should have greater effects for incumbency.

In summary, these results show instances where partisanship's dominating effect on election outcomes wanes. Incumbency acts as an anti-nationalizing force, allowing for greater candidate valence effects and outcomes imperfectly aligned with partisan lean. However, incumbency's resistance to partisanship is limited to high salience elections; what little variation exists in down-ballot races is not explained by the presence of incumbents.

A8.2: News and Mentions

Lastly, I consider how candidate-specific information and the general information and media environments condition partisanship's nationalizing effect. A worrisome trend for scholars of representation and accountability has been the decline of local media circulation and readership (Hayes and Lawless 2018). As local newspapers decline in number, so too does attention paid to local politics (Hopkins 2018). Specifically, G. J. Martin and McCrain (2019) find the acquisition of local news media stations by a national conglomerate (the Sinclair Broadcast Group) increased relative coverage of national topics at the expense of local topics and increased the rightward slant of coverage, with Levendusky (2022) finding downstream conservative effects on viewers' voting behavior. Not only has access to local news declined; so too has the ability of news to inform voters. Peterson (2021) finds the effect of newspapers on candidate-specific awareness has halved relative to previous years.

It is possible the information voters receive directly from candidates is equally nationalized. Das et al. (2021) find gubernatorial and congressional rhetoric on Twitter is remarkably similar, though mayors still seem to address different topics. Furthermore, declining access to locale-specific information has been directly tied to the nationalization of election results. Leveraging the quasi-random geography of television media markets, Moskowitz (2021) shows residents of in-state markets (1) receive more coverage specific to their gubernatorial and senatorial candidates and (2) vote straight-ticket at a lower rate.

How should these studies shape our expectations regarding the connection between local information, partisan preference, and voting? Broadly, previous research suggests access to information specific to local candidates allows voters to make decisions informed by more than party identification. In terms of the parameters from the decomposition approach to nationalization, I would expect such information to increase the absolute effect of candidate valence. The expected partisan lean effect is unclear. With more access to information, voters may be able to better determine the relative ideological positions of candidates and make a choice better informed by their personal ideology. Alternatively, the information gained may not necessarily be ideological or partisan in nature (perhaps related to the personal qualities of the candidate), meaning decisions could be less informed by their underlying partisan lean.

I analyze these hypotheses in Figure 22 with multiple measures of information from three sources. First, I consider the overall newspaper circulation within a state (logged and per-capita) as a general measure of the state's information environment. These data are provided by the Alliance for Audited Media. These data also provide a measure of the proportion of total circulation given by in-state newspapers, a coarser (and non-causally identified) corollary to Moskowitz's (2021) approach. Next, I consider candidate-specific mentions in both local newspapers and national broadcast media. For newspaper mentions, I use Newspapers.com to obtain the number of pages in within-state newspapers in which candidates of the statewide election data are mentioned during the election year. For national news mentions, I use the GDELT 2.0 Television API to obtain a

mentions-per-hour measures of the same candidates in national news media (CNN, MSNBC, FOX, and similar stations). All models control for logged state population with cluster-robust standard errors at the state-four-year level

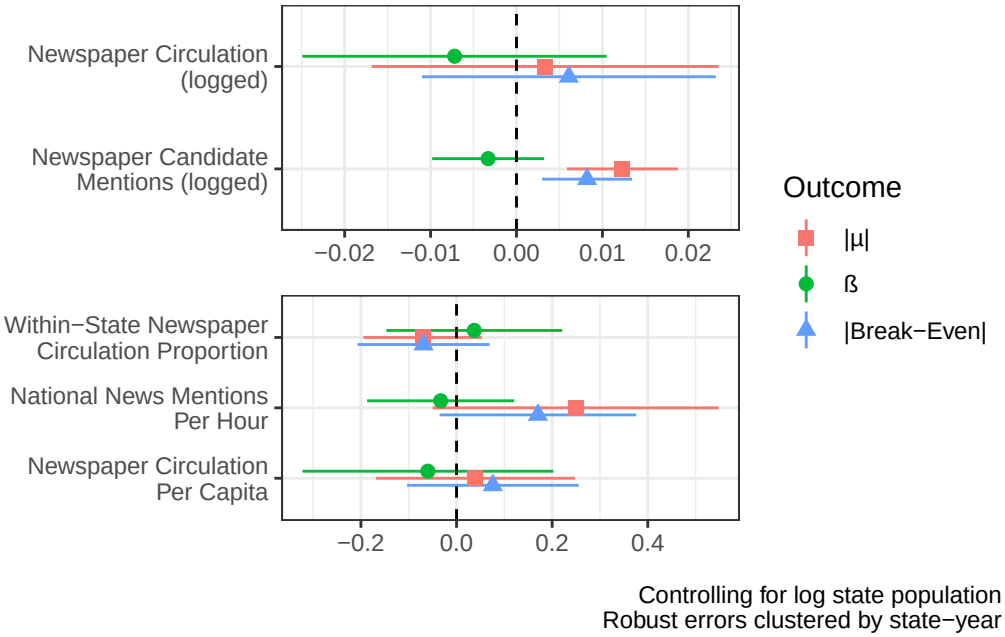

Figure 22: News Results

Overall, most results are insignificant. There are no effects for general information environments with respect to newspapers. There is, however, a significant relationship between specific newspaper mentions and the absolute candidate valence $|\mu|$ and difference in break-even percentile relative to the president. Interpreted more intuitively, going from the minimum (0 mentions) to the maximum (17,000) is associated with an increase in the absolute candidate valence effect of 0.1. Because this effect is understood in terms of vote margin, this is a fairly large swing; it would be a change of losing 52.5% to 47.5% to winning by the same margin. Interestingly, this effect does not extend to partisan preference, suggesting the effect of media is mostly constrained to these candidate-specific effects instead of operating on how partisanship is translated into votes. Furthermore, while the effects are in the same direction, they are insignificant for national news mentions per hour. This is likely a function of data sparsity at lower levels of government. For many races (including high-profile statewide races), there are simply no national news media mentions.

Decomposing the effect of candidate-specific mentions in newspapers and national news by office category, the effects are driven by different sources. Increases in candidate valence are associated with increases in newspapers mentions in all state executive offices, and with national news mentions in high state executive offices. Significant differences in the break-even percentiles show the same association with newspaper mentions in high state executive offices. Information, therefore, seems to be of highest leverage in more "goldilocks" situations; when office salience is high enough to attract voter attention, but not so high as to limit the potential learning on the part of voters. Overall, these results give a similar understanding of nationalization as the incumbency analysis: partisanship powerfully structures elections across all offices and is fairly resistant to other forces. Some variation is explained by increased access to local information, but mostly in high-salience statewide elections.