# Candidate Positions, Responsiveness, and Returns to Extremism*

Mellissa Meisels†

**Abstract**

The concept of candidate positioning is central to the study of U.S. elections, representation, and political behavior. Existing work, however, overwhelmingly relies on indirect measures which may not reflect candidates' stated positions. I analyze foundational relationships between candidate positions and district partisanship, primary electoral success, and primary fundraising performance with existing approaches versus text scaling estimates based on an original collection of campaign platforms from House primary candidates' websites in 2016, 2018, 2020, 2022, and 2024. Directly measuring candidates' positions using campaign platforms leads to conclusions vastly different than those reached with existing measures. While platform-based measures suggest candidates are responsive to their districts, existing measures do not. Within district, however, existing measures show financial and electoral penalties to extremism in primaries, but platform-based measures show no such penalty. These findings have wide-ranging implications for a number of ongoing scholarly debates which involve congressional candidates' positions.

*I am grateful to Josh Clinton for advice at multiple stages of this project. Thanks go to Larry Bartels, Mike Cowburn, John Duggan, Gretchen Helmke, Greg Huber, Tasos Kalandrakis, Brenton Kenkel, Michael Shepherd, John Sides, Danielle Thomsen, Sharece Thrower, Alan Wiseman, and audiences at Vanderbilt University, University of Rochester, and the 2023 PolMeth and MPSA conferences for helpful feedback and conversations. For excellent research assistance, I thank Riley Black, Amanda Bortner, Louis-Haslan Dorsinvil, Tyler Owen Horton, Marisa Kim, Liam Thompson, and Devan Wiley.

†Postdoctoral Associate, Center for the Study of American Politics and Assistant Professor, Department of Political Science, Yale University. mellissa.meisels@yale.edu

Candidate positioning is a ubiquitous concept in both theories of elections and ongoing empirical debates in electoral and representation studies.[1] Announced policy platforms are the cornerstone of Downsian formal models of electoral behavior and competition (Banks 1990; Baron 1994; Cameron and Enelow 1992; Downs 1957; Enelow and Hinich 1982) and a focus of scholarly debates regarding extremist success, the role of nationalization versus district preferences, and other key topics within the field of legislative elections (Ansolabehere, Snyder, and Stewart 2001; Kujala 2020; Bonica and Cox 2018; Hall 2015; Hall and Snyder 2015; Hopkins 2018; Utych 2020; Woon 2018).

In the American politics context, empirical investigations involving both congressional incumbents and non–incumbents tend to use one of two sets of approaches when measuring candidates' positions along a left–right, unidimensional continuum. The first leverages information sourced directly from candidates, such as surveys soliciting their stances on various issue and policy matters (e.g. Ansolabehere, Snyder, and Stewart 2001; Rogowski 2014) or simply asking them to place themselves on a left–right continuum (Burden 2004).[2] The second measurement approach scales candidates' positions using data on fundraising networks, relying on the assumption that donors contribute to those similar to themselves (e.g. Bonica 2013, 2014; Hall 2015; Hall and Snyder 2015).

On the one hand, information from candidates' own campaigns allows for a relatively unmediated and direct measure of their positioning. However, in recent decades survey response rates have dropped too low to reliably estimate the majority of congressional candidates' positions.[3] As such, scholars have increasingly relied upon Campaign Finance (CF) Scores (Bonica 2014, 2024) — which use readily-available campaign contribution

[1] While terms like *ideology* or *ideal point* are used frequently in studies involving collections of political views, this paper is interested solely in how candidates present themselves during elections and is agnostic about the "truthfulness" of these self-presentations. For this reason, I instead refer to *positioning* and *positions*, although I use descriptors such as *liberal*, *conservative*, and *extreme* that are commonly associated with ideology.

[2] A related but less direct approach is surveying expert informants about the locations of various candidates (e.g. Kujala 2020; Stone and Simas 2010).

[3] Only one quarter of major-party nominees responded to Project Vote Smart's surveys by 2010 (Adams et al. 2017).

data — to capture candidates' positions in their work (e.g. Bonica and Cox 2018; Carson and Williamson 2018; Kujala 2020). CF Scores offer the invaluable benefit of wide coverage of the universe of congressional candidates, including even those who lost their primary election. Yet, such contribution-based measures rely on the observed behavior of campaign donors, not candidates. Would we reach different conclusions about representation quality and incentives for extremism in the current era if measures were tied more directly to candidates' positions?

I re-examine evidence central to ongoing debates involving candidate positioning by comparing results with a measure based on candidates' publicly-stated positions to results with existing measures. Combining a text scaling approach with an original dataset of issue platforms from all available campaign websites, I estimate unidimensional positions of House primary candidates in 2016, 2018, 2020, 2022, and 2024. I then address three important and related questions in American politics for which the theoretical expectations and current empirical evidence are mixed. In each case, my findings suggest that our answers depend critically on which campaign activity is used to measure candidates' positions.

First, are candidates still responsive to their districts? Although the constituency plays a central role in classic studies of elections and representation (e.g. Canes-Wrone, Brady, and Cogan 2002; Downs 1957; Miller and Stokes 1963), the nationalization of political behavior and media raises questions about whether candidate-district ties have been weakened or severed altogether (Bonica and Cox 2018; Gimpel, Lee, and Pearson-Merkowitz 2008; Hopkins 2018; Jacobson 2015; Martin and McCrain 2019; Moskowitz 2021). Examining the relationship between district partisanship and candidate positions, I find that both Democrats' and Republicans' campaign platforms grow significantly more liberal in more Democratic districts. However, there is no evidence of such responsiveness when relying upon existing donation-based measures.

Second, do primary voters reward extremism? As more congressional districts have

become safe for one party, polarization and the influence of primaries on electoral outcomes have increased roughly in tandem, making the primary system a frequent target of blame among reformers.[4] While legislators disproportionately fear backlash over political compromise from their primary constituencies (Anderson, Butler, and Harbridge-Yong 2020), evidence on the representativeness of and preference for extremists among primary electorates is decidedly mixed (Brady, Han, and Pope 2007; Hill 2015; Hirano and Snyder 2019; King, Orlando, and Sparks 2016; Lockhart and Hill 2023; Sides et al. 2018). Employing within-district-party analyses, I contextualize these discordant findings: existing measures of extremism are related to decreased primary vote share, but candidates with more extreme campaign platforms are, if anything, rewarded with a larger share of the primary vote.

Third, do extreme candidates enjoy fundraising advantages in primaries? The lack of party heuristic available to voters within partisan primaries creates an opportunity for moneyed interests to exert disproportionate influence (Bawn et al. 2012). On the one hand, individual donors tend to be much more extreme than voters, legislators, and the affluent, and they prefer to fund extreme candidates, all else equal (Barber et al. N.d.; Barber 2016*a*; Kujala 2020; Meisels, Clinton, and Huber 2024). On the other hand, political organizations have been shown to contribute to moderates and penalize extremism (Bonica 2013; Barber 2016*b*). In line with the electoral performance finding, extremism is related to weaker primary fundraising when using existing measures, yet extreme campaign platforms are not financially penalized whatsoever.

This article makes both substantive and methodological contributions to the study of congressional elections and representation. First, I provide novel evidence that candidates' platforms remain responsive to their prospective constituencies, and I contribute to a growing body of work on the nationalization of donor behavior (Hopkins 2018; Rhodes,

[4] *Unite America*, the main funder of Alaska's 2022 nonpartisan primary reform, argues on their website that "the biggest solvable problem fueling political extremism and dysfunction is hiding in plain sight: party primaries" (https://www.uniteamerica.org/book).

Schaffner, and La Raja 2018; Sievert and Mathiasen 2023). Moreover, my analyses help reconcile mixed and piecemeal findings on the advantages of extremism in primaries: while a more extreme donor base — the predominant measure of candidate positions — is associated with weaker electoral and fundraising performance in primaries, there are no such penalties for an extreme campaign platform. By hand-collecting the most comprehensive set of House primary campaign platforms to date, I am able to clarify which aspects of campaigns remain responsive to the district, and how voters and donors in turn respond to extremism expressed in different campaign activities. More broadly, platform-based estimates facilitate the use of multiple high-coverage measures to interrogate questions related to candidate positioning in the current era. The starkly different results reached with platform-based and contribution-based estimates of candidates' positions have wide-ranging implications for previous studies relying solely on the latter.

## Candidate Positions, Responsiveness, and Primary Success

The importance of (sub-)constituency is all but a given in classic theoretical and empirical studies of elections and representation (e.g. Canes-Wrone, Brady, and Cogan 2002; Downs 1957; Enelow and Hinich 1984; Meirowitz 2005; Miller and Stokes 1963). Whether represented by the median or a distribution, and consisting of voters, constituents, co-partisans, or donors, the key population of interest in candidates' strategic positioning is thought to be district–specific. However, recent evidence on the nationalization of political behavior, media, and donors calls into question whether candidate–district ties have been severed (Ansolabehere, Snyder, and Stewart 2001; Abramowitz and Webster 2016; Gimpel, Lee, and Pearson-Merkowitz 2008; Hopkins 2018; Jacobson 2015; Martin and McCrain 2019; Moskowitz 2021).

Due to existing studies' contradictory findings, it is unclear whether candidates are still incentivized to be responsive to their districts. Bonica and Cox (2018), for example,

argue that political parties strategically nationalized congressional elections in response to increased competition for majority control since 1994 (Lee 2016). If elections are primarily fought over national party positions, national donor support, and national media attention, candidates no longer stand to benefit from tailoring their positions to the district, and instead stand to benefit from adopting the party line and appealing to extreme donors and activists.[5] However, more recent evaluations have not found consistent support for this argument (Canes-Wrone and Kistner 2022; Lockhart and Hill 2023).

In addition to whether candidates are generally incentivized to tailor their positions to their districts, a related question is whether extremism is rewarded at the primary stage of elections. As more congressional districts become safe for one party, primaries have grown to have an outsized influence on electoral outcomes (Abramowitz, Alexander, and Gunning 2006; Jacobson 1990, 2015; Hirano and Snyder 2019; Thomsen 2023).[6] Scholars have long argued that primaries contribute to or exacerbate polarization in legislatures because, in comparison to general election voters, partisan primary voters are more extreme and prefer more extreme candidates (Anderson, Butler, and Harbridge-Yong 2020; Aranson and Ordeshook 1972; Brady, Han, and Pope 2007; Hill 2015; King, Orlando, and Sparks 2016). However, other work suggests that the primary electorate is relatively representative of the general electorate or, even if primary voters are more extreme, they may nevertheless strategically support moderates (Adams and Merrill 2014; Hirano 2010; Lockhart and Hill 2023; Sides et al. 2018).

The nature of intraparty nominations is another reason that extreme candidates would potentially thrive in partisan primaries. Whereas general election voters can either vote for the candidate who shares their party identification or use partisanship as a convenient heuristic for candidates' positions and priorities, primary voters must select between can-

[5]Specifically, Bonica and Cox (2018) argue that voters have become more party-centered and therefore no longer penalize candidates for extremism, whereas extremism can benefit candidates via activist and donor support.

[6]The number of House races decided within 10% was 33 in 2016, 90 in 2018, 77 in 2020, and 75 in 2022 (`https://ballotpedia.org/Congressional_elections_decided_by_10_percent_or_less,_2022`).

didates who share a party identification. Because voters are likely more persuadable as they "lack the anchoring cue of partisanship" (Bawn et al. 2012, p. 575), intense policy demanders such as donors and interest groups may exert a disproportionate influence in primaries (Cohen et al. 2008; Kalla and Broockman 2018; La Raja and Schaffner 2015). A natural question in light of congressional polarization, then, is whether these financial contributors disproportionately advantage extreme primary candidates. Individual donors are quite extreme compared to other segments of the population, and they prefer to fund extreme candidates, all else being equal (Barber 2016*a*; Kujala 2020; Meisels, Clinton, and Huber 2024). On the other hand, political organizations appear to favor moderate candidates and financially penalize extremism (Bonica 2013; Barber 2016*b*). Despite the moneyed interests' greater potential influence in primaries, far less is known about the relationship between candidate positions and primary fundraising.[7]

In sum, existing work reaches conflicting conclusions about whether candidates still face incentives to tailor their positions to the district and whether extremism is related to stronger electoral and fundraising performance in primaries. Furthermore, the analyses which address these questions most directly tend to be limited in at least one of two ways. First, it is an open question how well results import to the current era, as the time periods covered end well before 2016. Second, it is unclear whether patterns generalize to candidates' stated positions, as results rely primarily, or in many cases, solely on campaign contribution-based estimates of candidate positions.

## Capturing Candidate Positioning

The introduction of roll-call-based ideological estimation transformed the study of legislative and electoral behavior. These methodologies allowed for systematic characterization of congressmembers' spatial ideal points based on an underlying behavioral model, and,

[7]Meisels, Clinton, and Huber (2024) show experimentally that individual donors respond similarly to candidate extremism in primaries and general elections.

subsequently, testing theories of representation (Bafumi and Herron 2010; Brady, Han, and Pope 2007; Canes-Wrone, Brady, and Cogan 2002; Clinton, Jackman, and Rivers 2004; Poole and Rosenthal 1991; Poole 2005). Over time, however, increasing interest in polarization called for comparable measures of non-incumbent' positions.

As a result, scholars turned to various sources of data which include both incumbents and non-incumbents, each with its own benefits and drawbacks. Candidate surveys and television advertisements, which capture position information directly from campaigns, nevertheless cover only a small portion of the candidate universe due to low response rates and high costs, respectively (Adams et al. 2017; Herrnson, Panagopoulos, and Bailey 2020; McGhee et al. 2014). Currently, the most ubiquitous approach uses campaign contributions to measure candidates' positions less directly, relying on the assumption that contributors give to candidates with positions similar to their own (e.g. Bonica 2014; Hall and Snyder 2015; Hall 2015). These contribution-based estimates offer unprecedented coverage of the universe of candidates: common-space CF Scores, the most widely-used of these measures, includes over two-thirds of all major-party primary candidates since 2016.

On the one hand, measures based on observed donor behavior may actually correspond more strongly to candidates' "true" ideologies than measures based on information provided directly by campaigns. Whereas strategic candidates want to cultivate a particular image of themselves when appealing to the public, donors "are free to consider the many ways in which candidates express their ideology" (Bonica 2014, p. 372), including drawing on potentially private information (Austen-Smith 1995; Hall and Wayman 1990; Kalla and Broockman 2016).

On the other hand, many research questions are implicitly interested in candidates' public campaign strategy — for instance, whether and how voters respond to candidates' positions, or whether candidates shift positions after being redrawn into a new district. Aside from numerous contexts where candidates' publicly-stated positions capture the concept of interest more closely, however, donor composition reflects an aspect of candi-

dates' profiles potentially orthogonal to their public positions. Distinguishing between which patterns do and do not hold across different campaign activities allows for more precise identification of the answers to questions where evidence often appears mixed.

## Scaling Campaign Website Platforms

I estimate the positions of candidates who ran in major-party House primaries from the five most recent election cycles — 2016, 2018, 2020, 2022, and 2024 — using the most comprehensive collection of campaign website policy platforms to date.[8] Scholars have long recognized campaign websites as a valuable medium for studying campaign strategy for a number of reasons (Druckman, Kifer, and Parkin 2009; Druckman et al. 2010; Milita, Ryan, and Simas 2014; Nyhan and Montgomery 2015; Porter, Treul, and McDonald 2024). Creating and maintaining a website is easy and far cheaper than fundraising, sending mailers, and running television advertisements, resulting in a relatively even playing field with regard to candidates' resources.[9] The vast majority of websites contain a page or section clearly delineated as a collection of issue stances, resembling a stated policy platform more closely than any other campaign materials.[10] Moreover, the priorities and positions found on websites are selected and articulated by campaigns themselves, making them less mediated than media interviews, televised debates, or newspaper write-ups.[11]

I collect all available campaign website policy platforms of the over 7,000 candidates who appeared on a Democratic or Republican primary ballot from 2016 to 2024.[12] A sim-

[8] Past studies have included only primary winners and/or runners up, or candidates from fewer election cycles.

[9] While some candidates host highly professionalized websites clearly created by web designers, many candidates utilize free website creators, which offer easy-to-use interfaces that make website creation accessible to even the least technologically savvy candidate without the aid of campaign staff.

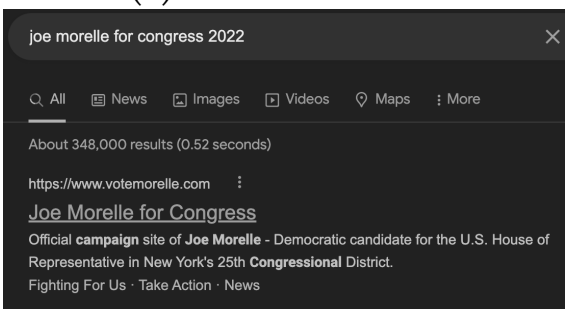
[10] This also makes campaign website platforms qualitatively different from candidates' social media posts, which have been used to construct measures of candidates' positions meant to capture more dynamic changes in the political environment (Cowburn and Sältzer 2024; Temporão et al. 2018).

[11] Websites also provide candidates with space to present a more comprehensive campaign platform than television or newspaper advertisements (Sulkin, Moriarty, and Hefner 2007).

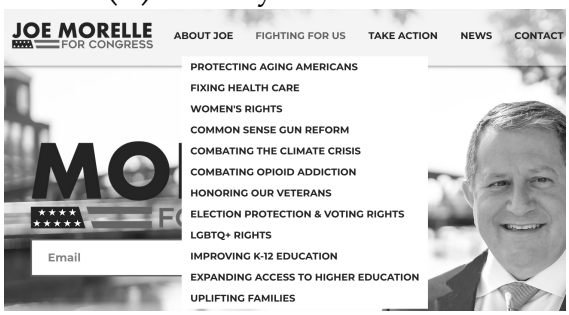
[12] I exclude third-party candidates, candidates whose primaries were cancelled, and candidates in CA, WA, LA, CT, UT, and certain party primaries in some VA districts. Appendix A provides the full list of and rationales for excluded races.

**Figure 1.** Example Data Collection Workflow

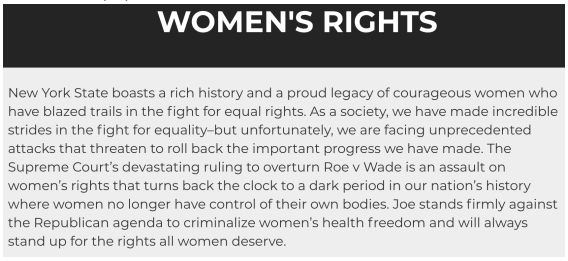
(**a**) Search for website



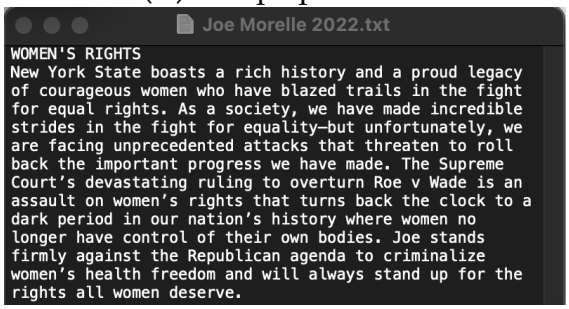

(**b**) Identify issue content




(**c**) Access all issue content




(**d**) Scrape plain text




*Note:* Visual depiction of simplified steps involved in collecting Representative Joe Morelle's 2022 primary campaign issue positions from `www.votemorelle.com`. Appendix A describes each component of the data collection in detail.

plified example workflow is illustrated in Figure 1, and Appendix A details the data collection at length. For each candidate, I first searched for their on-cycle campaign website with a combination of simple web engine search and cross-checking sources such as Politics1.com and *Ballotpedia*.[13] I accessed candidates' websites within the week leading up to their primaries in 2022 and 2024, and used *Wayback Machine* to access websites as archived most immediately prior to candidates' primaries prior to 2022. Finally, I captured an image and scraped the raw text of the issue content, which was typically on a clearly marked page or section with titles such as "Platform," "Issues," or "Priorities."

All in all, 65% (4,703) of all 7,296 major-party primary candidates from 2016 to 2024 hosted campaign websites with issue content. Because the baseline costs involved in creating a website are so low, "missingness" in the data should be more plausibly related

[13] I exclude official governmental websites (those ending in `.gov`), as sitting incumbents maintain separate online presences for their campaign. I also exclude social media pages such as Facebook and Twitter.

to candidates' decision not to publicly commit to a platform than to factors unrelated to positioning but related to the availability of existing measures (such as insufficient fundraising in the case of contribution based measures, or failure to win election in the case of roll call based measures). I investigate the representativeness of candidates with campaign website platforms in Appendix A, looking separately by incumbency status as non-incumbents' variation in missingness is mainly due to lacking a website altogether whereas incumbents' is due to omitting a policy platform.

While incumbents are slightly more likely to include a policy platform on their website in swing districts compared to safe districts, there are no differences by primary competition or party. Among non-incumbents, candidate type, district and primary competitiveness, experience, and party all have small and/or insignificant relationships with campaign website presence. Non-incumbents who raised less than a negligible share of total primary receipts are over 15 percentage points less likely to have hosted a website than non-incumbents who raised more. This relationship is relatively modest considering the large portion of primary candidates who do not actively campaign after filing to run. Fully half of the candidates who did not report *any* itemized direct contributions nevertheless hosted websites with campaign platform. Overall, the data cover a large majority of all primary candidates, with little systematic exclusion on the basis of candidate type, electoral competitiveness, or even resources.

I combine the campaign platform texts with an unsupervised machine learning algorithm, `wordfish`, to scale unidimensional campaign positions at the candidate–year level (Slapin and Proksch 2008). The statistical model is based on item response theory and bears strong resemblance to correspondence analysis, the methodology used to estimate campaign contribution–based CF Scores (Bonica 2014).[14] I follow other scholars in assuming that the frequency and usage of words in political text are informative about authors' positions on what is thought to be a liberal–conservative dimension (Lauderdale and Her-

[14]Scatterplots in Appendix B demonstrate strong correlations between scaling estimates from `wordfish` and one-dimensional correspondence analysis ($r = 0.988$; $\rho = 0.998$).

zog 2016; Laver, Benoit, and Garry 2003; Lowe et al. 2011; Rheault and Cochrane 2020; Vafa, Naidu, and Blei 2020). As demonstrated by Grimmer and Stewart (2013), however, the validity of this assumption rests crucially on the dominance of a liberal–conservative dimension within the relevant texts. As I show later, using both candidate and word level parameters to interrogate the underlying dimension structuring the rhetorical space provides strong evidence that this assumption is satisfied.

I prepare the text corpus by constructing an $\mathbf{N} \times \mathbf{M}$ sparse document-feature matrix of $\mathbf{M}$ term columns and $\mathbf{N}$ candidate-year rows, with term frequencies as cell entries. I preprocess the data by removing punctuation, reducing terms to their stem, and removing both highly frequent stopwords and highly infrequent terms to reduce noise in estimation and improve computing performance.[15] To help ensure that the key liberal–conservative dimension is identified and minimize the risk of misspecifying the policy space, I drop terms primarily associated with geographic or incumbency differences between candidates, such as state names and congressional procedure. In addition to all remaining unigrams that meet the above criteria, I also preserve frequently used $n$-grams (e.g. `common core`, `freedom of speech`, and `right to bear arms`).[16] Altogether, this results in nearly 3,000 unique terms across more than 4,700 separate primary campaigns. Further details of the text processing flow and comparisons of estimates with and without scaling refinements are provided in Appendix B.

The `wordfish` model estimates candidates' year-specific positions as a function of how frequently they use terms associated with different areas of the political spectrum,[17] while also accounting for the fact that some platforms are wordier than others and some terms are more prevalent than others. The rate $y$ at which primary candidate $i$ uses term $j$ in

[15] I drop terms that appear in fewer than 100 separate campaign texts. This is an extremely lenient requirement given that the corpus contains almost 5,000 campaign texts, yet this step substantially improves computing time. See Appendix B for further discussion of pre-processing choices.

[16] Scatterplots in Appendix B demonstrate high correlations between scaling estimates with and without non-unigram, geographic, and procedural terms ($r = 0.997$; $\rho = 0.998$).

[17] For example, the term `gun` is neutral and used by candidates all across the political spectrum, whereas the term `high-capacity` highlights the danger of large firearm magazines and thus predominantly associated with candidates on the left.

election year $t$ is assumed to be drawn from a Poisson distribution, which is characterized by a single parameter $\lambda$ representing both the expected value and variance. This parameter logarithmically links the probability distribution generating the observed term rate to the systematic components of interest:

$$y_{ijt} \sim \text{Poisson}(\lambda_{ijt}) \text{ where } \lambda_{ijt} = \exp(\alpha_{it} + \psi_j + \beta_j * \omega_{it}). \quad (1)$$

The key parameter $\omega_{it}$ represents candidate $i$'s campaign position in primary $t$, which is scaled to have sample mean 0 and standard deviation 1. As mentioned previously, no special assumption is placed on individuals' positions over time: for candidates who ran in more than one House election between 2016 and 2024, each primary campaign constitutes a separate observation. The term $\beta_j$ represents word $j$'s weight in discriminating between different campaign positions.[18] A word fixed effect $\psi_j$ captures the rate at which word $j$ is used generally, and a candidate-year fixed effect $\alpha_{it}$ corresponds to the verbosity of candidate $i$'s campaign position text in election $t$.[19] Appendix B provides technical details of the expectation maximization algorithm used for estimation, as well as further discussion of text pre-processing decisions and alternative scalings using correspondence analysis and unrefined tokens.

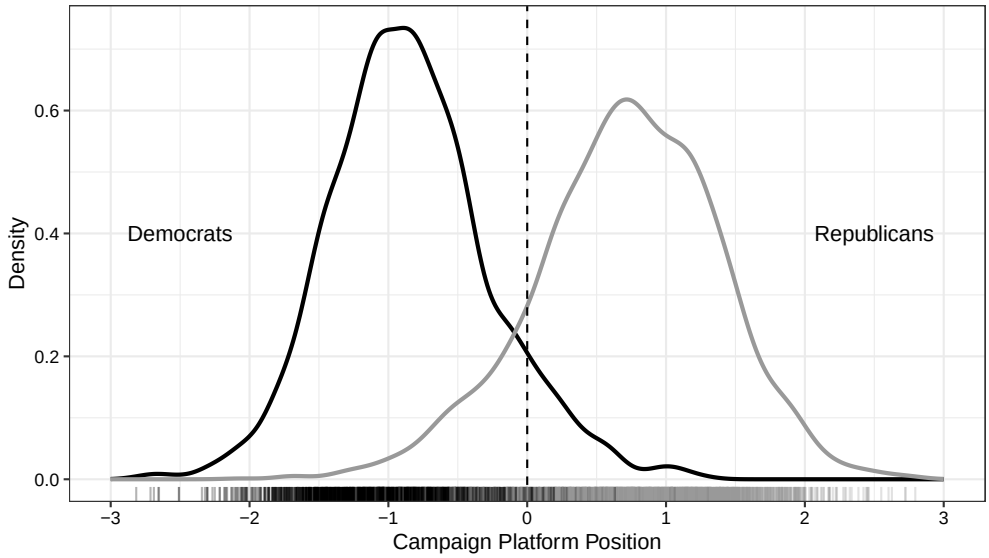
## Validation and Comparisons

The distribution of candidates' $\omega$ parameters are presented in Figure 2. Consistent with well–documented partisan polarization among political elites (Bafumi and Herron 2010; McCarty, Poole, and Rosenthal 2016; Theriault 2006), platform-based positions are bi-

[18] This is akin to an IRT discrimination parameter or factor analysis loading score.

[19] In the algorithm initialization, start values of $\psi$ and $\alpha$ are functions of word frequencies, while start values of $\beta$ and $\omega$ are obtained via singular value decomposition of the matrix of word frequency marginals — hence the strong relationship between estimates resulting from correspondence analysis versus `wordfish` in the Appendix.

**Figure 2.** Distribution of Campaign Platform Positions by Party, 2016 – 2024




*Note:* Kernel density plots of $\omega$ estimates from Equation 1, which are scaled to have mean 0 and SD 1. Democratic candidates shown in black and Republican candidates in gray. Negative values indicate more liberal/less conservative.

modally distributed, with most Republicans substantially to the right of most Democrats and most Democrats substantially to the left of most Republicans. However, a modest degree of overlap in Republican and Democratic candidates' positions is also consistent with the frequency with which candidates of both parties choose to campaign similarly on the same issues, such as job creation and veterans affairs. This differs from roll–call estimates of House members' ideal points from recent congresses, which exhibit no partisan overlap partly due to the strategic selection of legislative floor votes that frequently exaggerate differences between parties (Clinton 2012; Bateman, Clinton, and Lapinski 2017; Cox and McCubbins 2005; Lee 2016). Distributions look highly similar when subsetting to viable or incumbent candidates in Appendix B, demonstrating that serious candidates likewise span the range of the spectrum.

In addition to cross-party variation, a selection of well-known candidates from across the political spectrum in Table 1 suggests that the intraparty variation in platform-based positions is likewise facially valid. The 2018 campaign of Elise Stefanik, a Republican representing a rural district in New York's North Country since 2014, fell almost one stan-

**Table 1.** Campaign Platform Positions of Notable Candidates

| Party | Candidate | District-Year | Position |
|---|---|---|---|
| (R) | Elise Stefanik | NY-21-2018 | –1.00 |
| (R) | George Devolder-Santos | NY-3-2020 | –0.20 |
| (R) | Liz Cheney | WY-2022 | 0.21 |
| (R) | Liz Cheney | WY-2016 | 0.63 |
| (R) | Andy Ogles | TN-5-2024 | 1.45 |
| (R) | Marjorie Taylor Greene | GA-14-2020 | 1.93 |
| (D) | Amy McGrath | KY-6-2018 | 0.18 |
| (D) | Jim Cooper | TN-5-2020 | -0.14 |
| (D) | Seth Moulton | MA-6-2024 | -0.50 |
| (D) | Andy Levin | MI-11-2022 | -0.83 |
| (D) | Terri Sewell | AL-7-2024 | -1.24 |
| (D) | Ayanna Pressley | MA-7-2020 | -1.79 |

dard deviation to the left of the mean. Although she has since made headlines for her impassioned defense of President Trump during his first impeachment proceedings,[20] Stefanik campaigned on strengthening trade with Canada, expanding agricultural visa programs, veteran welfare, environmental protection, healthcare access, and affordable education. Because no special assumption is placed on the continuity of candidates' positions from one election to the next, platform changes like Liz Cheney's well-documented shift from 2016[21] to 2022[22] are also reflected in primary campaign position estimates. Tennessean Blue Dog Democrat Jim Cooper, the "man in the middle"[23] and "the last moderate...loathed by Republicans for being in the wrong party, and scorned by Democrats for his fiscal conservatism"[24] fell just to the left of mean 0 during his 2020 primary campaign. Likewise, the campaigns of those widely regarded as the most progressive Democrats and conservative Republicans fall toward the endpoints of the campaign position range.

Beyond general differences within and across parties, Figure 3 demonstrates that there

[20] https://www.reuters.com/world/us/loyalty-trump-catapults-elise-stefanik-into-republican-stardom-2021-05-11/

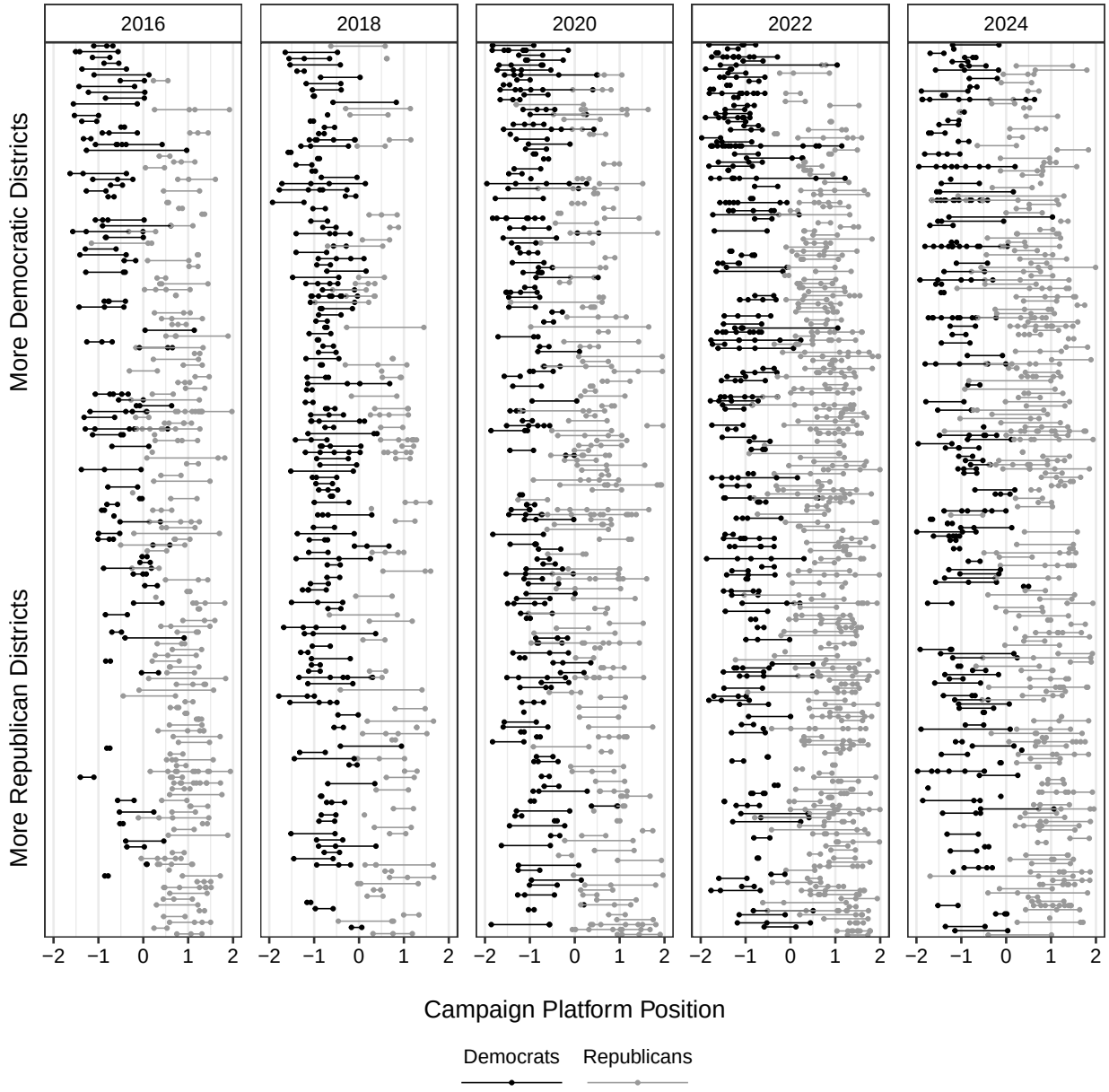
[21] https://www.washingtonpost.com/politics/another-cheney-rises-in-a-republican-party-led-by-trump/2016/08/15/a2f817a0-6267-11e6-8b27-bb8ba39497a2_story.html

[22] https://www.cnn.com/2022/08/17/politics/why-liz-cheney-lost/index.html

[23] https://washingtonmonthly.com/2022/12/13/man-in-the-middle/

[24] https://www.nytimes.com/2011/09/06/opinion/the-last-moderate.html

**Figure 3.** Campaign Platform Variation Within and Across Primaries




*Note:* Circles represent each campaign platform, with lines connecting those of candidates running in the same primary. Districts descending along horizontal axis from highest to lowest two-party Democratic presidential vote share. Democrats shown in black and Republicans in gray. Primaries with at least two candidates with campaign platforms are included.

is even substantial variation in the spread of candidates' positions within a primary field. Some races feature candidates with platforms located at almost the same points, while others span two standard deviations or more. Consistent with aggregate evidence in Figure

2, Republican primary fields tend to fall to the right of Democratic primary fields across districts, but the degree of divergence — or, in some cases, overlap — between Democratic and Republican primary candidates running in the same (or similar) districts is far from uniform. Taken together, Figures 2 and 3 and Table 1 provide strong evidence of meaningful variation both within and across parties, districts, and even primary fields.

Nevertheless, we still must verify that the dimension of interest — here, a general left–right dimension — is the one structuring estimates of candidates' platforms (Grimmer and Stewart 2013; Egerod and Klemmensen 2020). While this cannot be formally tested, interrogating the underlying substance is relatively straightforward and transparent in the case of text data, as terms included in the scaling likewise receive parameter estimates based upon their ability to discriminate between positions. Table 2 reports the 20 terms with the largest negative (left) and positive (right) $\beta$ weights from Equation 1, with the full table of corresponding $\beta$ and $\psi$ estimates included in Appendix B. While terms related to critical race theory, Christianity, anti-abortionism, illegal immigration, and socialism are strongly associated with conservative campaign platforms, terms related to inequality, injustice, gender and sexuality, and affordable education are strongly associated with liberal platforms. Overall, these results provide strong evidence that the rhetoric underlying the scaling estimates is structured by recognizable modern divisions along the liberal–conservative spectrum.

A major advantage of these estimates is their dynamic, time-series nature: if a candidate's rhetoric changes from election to election, so too will her campaign position. While the narrow temporal scope of the data makes it especially unlikely that the meaning of words changed substantially across the time period (Egerod and Klemmensen 2020), it is still informative to check whether the rhetoric of campaigns differed from one election to the next. Performing scaling separately by year in Appendix B suggests substantial continuity in even the top terms with the most liberal and conservative weights,[25] as well as

[25]Moreover, the emergence of heavily weighted terms such as `lewi` (a stem from references to the John Lewis Voting Rights Act, legislation proposed by House Democrats in the 117th congress) and `crt` in 2022

**Table 2.** Terms With 20 Most Conservative and Liberal Weights, 2016 – 2024

| **Left** | **Right** |
|---|---|
| {community-bas} {renter} {evict} {equit} {reproduct} {lgbtqia} {rental} {matern} {dispar} {underserv} {trauma} {indigen} {lewi} {pell} {childcar} {lgbtq} {high-capac} {preschool} {low-incom} {pre-k} | {crt} {woke} {tyrann} {indoctrin} {god} {god-given} {christian} {socialist} {tyranni} {communist} {unborn} {sanctiti} {pro-lif} {lawless} {swamp} {alien} {womb} {pelosi} {islam} {evil} |

*Note:* Terms with the largest positive (right) and negative (left) $\beta$ discrimination parameters from scaling. Appendix B reports corresponding $\beta$ and $\psi$ parameters.

correlations above 0.90 between campaign position estimates from the pooled scaling and each of the year-specific scalings.

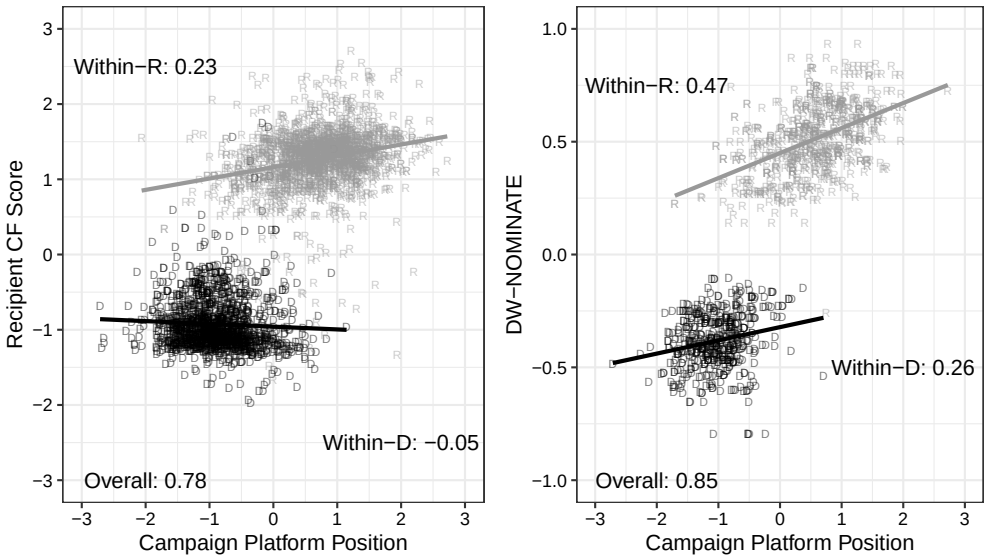
Finally, how do platform-based estimates compare to existing measures of candidates' positions? As mentioned earlier, campaign platforms may reflect candidates' true views, strategic appeals, or both, but are ultimately under the purview of candidates themselves.[26] In contrast, DW-NOMINATE is based upon legislators' voting behavior, which occurs in an institutional setting that is relatively opaque and influenced by a strategically–selected roll call agenda not determined by any one individual legislator (Arnold 1990; Clinton 2012; Lee 2016; Patty and Penn 2019). On the other hand, CF Scores are based on the observed behavior of donors who are assumed to contribute to candidates with positions similar to their own (Bonica 2014). In essence, campaign platforms capture something conceptually distinct from — yet potentially empirically related to — roll call voting and fundraising networks.

Figure 4 presents bivariate relationships, with the left facet plotting candidates' platform-based positions against their CF scores (Bonica 2024) and the right facet plotting incumbents' platform-based positions against their DW-NOMINATE scores (Lewis et al. 2025). Platform-based positions appear to co-vary more strongly with roll-call voting than with

is consistent with contemporaneous real-world changes in Democrats' and Republicans' electoral and legislative priorities.

[26]This remains true in the case of political consultant influence (e.g. Nyhan and Montgomery 2015), as the buck ultimately stops with the candidate, who can fire consultants advocating strategies with which she disagrees.

**Figure 4.** Relationship Between Campaign Platform Positions, CF Scores, and DW-NOMINATE




*Note:* Left plot compares campaign platform positions to CF Scores of House primary candidates from 2016 to 2024. Right plot compares campaign platform positions to 1st–dimension DW-NOMINATE scores of members of 115th–118th Houses. Linear regression lines fit separately by party, with Democrats in black and Republicans in gray. Pooled and intra-party Pearson's $r$ correlations reported.

donor networks. While pooled correlations are quite strong (but still stronger with DW-NOMINATE than with CF Scores), the intra–party correlations between primary campaign platforms and DW-NOMINATE are substantially greater than those with CF Scores. Whereas recent work by Barber (2022) documents the complete disappearance of a statistical relationship between House Democrats' CF Scores and DW-NOMINATE scores since 2014, Democrats' platform-based positions exhibit a persistent relationship with their DW-NOMINATE scores, and the NOMINATE–campaign platform correlations for Republicans and candidates overall are comparable to the NOMINATE–CF Score correlations found in Barber (2022). These results highlight the opportunities for further investigation of relationships between candidates' rhetorical positions, donor networks, and legislative behavior facilitated by measuring campaign positions independently of campaign contribution and roll-call data.

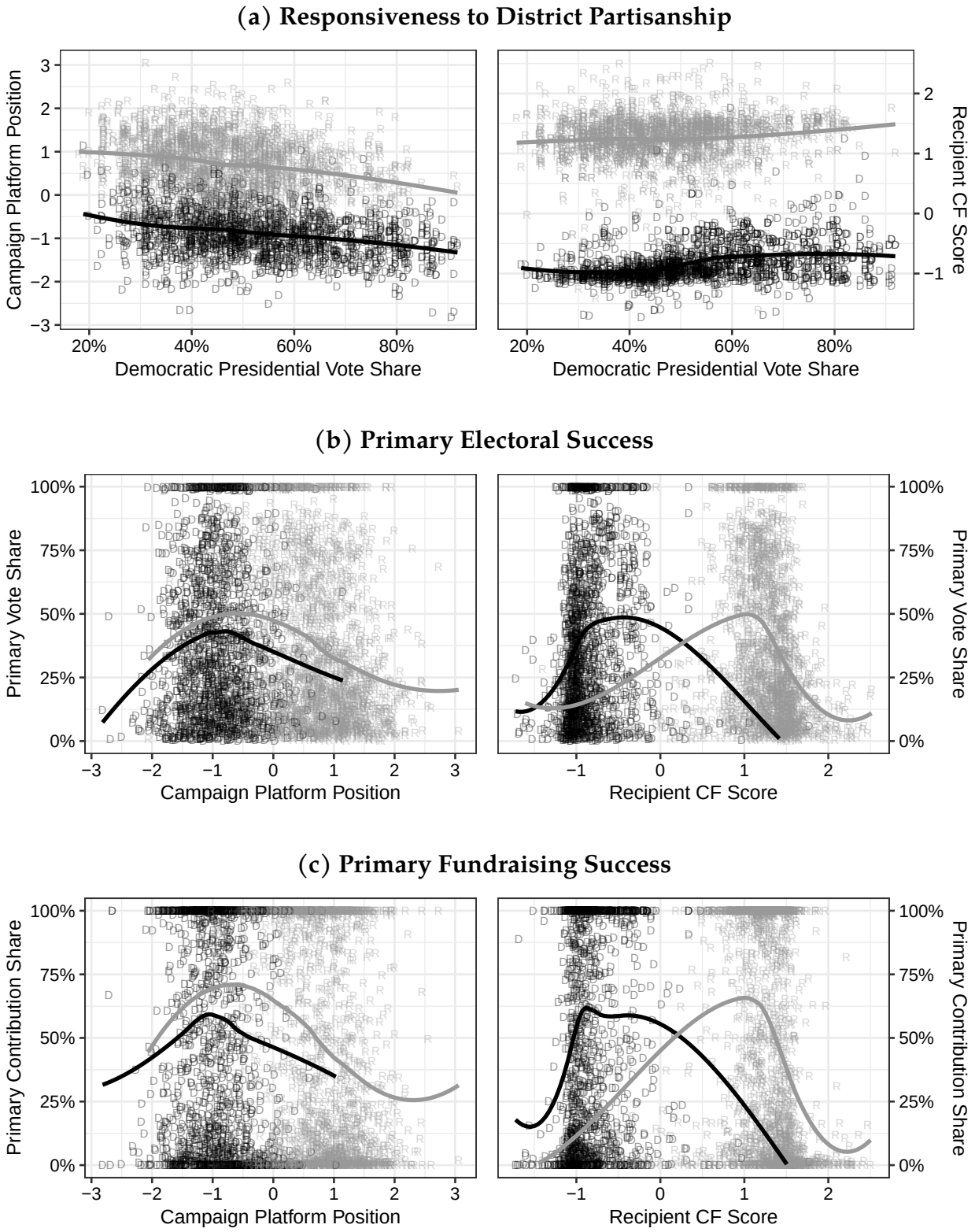
## Empirical Approach

As shown in Figure 4, there is a relatively weak relationship between candidates' rhetoric and their CF scores, the predominant, contribution based measure of candidates' positions. This raises questions about whether evidence in ongoing debates over questions related to candidate positions is dependent upon the use of a more indirect measure. As discussed previously, there are mixed theoretical expectations and empirical evidence regarding candidate responsiveness to the district and the relationship between extremism and electoral and fundraising success in primaries. Distinguishing between estimates of candidate positions based on platforms versus contributions can further clarify *which* features of campaigns are consistent with different conclusions about the current era of American politics.

First, we can examine basic bivariate relationships by platform-based versus contribution-based measures of candidate positions. Figure 5 plots districts' most recent two-party Democratic presidential vote share against candidates' positions in Panel A, candidates' positions against their share of the primary vote in Panel B, and candidates' positions against their share of direct itemized primary contributions in Panel C. Scatterplots on the left side use platform-based estimates of candidate positions, while plots on the right use existing contribution-based estimates of candidates' positions. I include only candidate-year observations which are covered by both measures in order to maximize comparability.

The trends in all three panels of Figure 5 look quite different across measures of candidate positions. Panel A shows that both Republicans' and Democrats' campaign platforms become more liberal as their districts become more Democratic, consistent with candidate responsiveness. However, evidence of such responsiveness is not present among candidates' CF scores, which become weakly more *conservative* in more Democratic districts. The patterns in Panels B and C look relatively similar to each other, which is unsurprising given the strong relationship between electoral and fundraising success. Democrats'

**Figure 5.** Comparing Responsiveness, Electoral Performance, and Fundraising Strength Across Candidate Position Measures, 2016 – 2024




*Note:* Loess curves fit separately by party, with Republicans in gray and Democrats in black. Includes candidates captured by both measures.

primary vote and fundraising shares decrease quadratically from a campaign platform vertex around –1, which is one standard deviation more liberal than the sample average. Republicans' shares of primary vote and fundraising, however, decrease as their campaign platforms become more conservative, aside from the handful of Republicans with extremely liberal platforms. Finally, Democrats' vote and fundraising shares peak at CF scores of –1 and Republicans' at 1, but shares decrease *more* as CF scores become extreme compared to moderate.

Raw relationships suggest that measuring candidates' positions with their campaign platforms versus contribution networks may lead to conflicting conclusions about responsiveness to the district and electoral and financial returns to extremism in primaries. However, a number of glaring confounders in these bivariate relationships may be driving observed patterns as well as some of the differences between candidates' platforms and CF scores. In the case of candidate responsiveness to the district, there are rarely Republican incumbents in heavily Democratic districts and vice versa. This means that only non-incumbents, who are typically lower quality and less experienced than incumbents, are the only candidates running in districts very unsafe for their party. To account for this while examining responsiveness, I estimate following equation separately for Democrats and Republicans:

$$\text{Position}_{idt} = \tau \text{District}_{dt} + \upsilon \text{Open}_{idt} + \kappa \text{GenChall}_{idt} + \eta \text{PrimChall}_{idt} + \gamma_t + \epsilon_i \qquad (2)$$

where $\text{Position}_{idt}$ stands in for two dependent variables, both of which increase with conservatism and were originally scaled to have mean 0 and SD 1: candidate $i$'s campaign platform score $\omega$ from Equation 1 during the primary in district $d$ in year $t$, and her static recipient CF Score.[27] The key independent variable, $\text{District}_{dt}$, represents district $d$'s Democratic two-party vote share from the presidential election held in or most immediately

[27] Notation is abused slightly by indexing Position by $idt$, as CF Scores vary only at the level of $i$.

before year $t$. To account for differences in the average position across different types of candidates, indicator variables capture whether $i$ was an open-seat candidate, a primary challenger, a prospective general election challenger, or an incumbent (omitted category) in primary $dt$. Year fixed effects are included to account for potential trends in extremism or progressivism over time and cluster standard errors at the candidate level.

Next, I investigate whether extremism is rewarded or punished by primary voters by analyzing the relationship between candidates' positions and primary vote share. In doing so, there are a couple of complicating factors. For one, Panel B in Figure 5 suggests that relationships are nonlinear. For another, the relationship between vote share and electoral success is entirely dependent on the number of candidates in the primary field: 40% vote share is a loss in a two candidate primary, but potentially a blowout victory in a five candidate primary. Additionally, partisan primary voters across districts may have different preferences for extreme versus moderate candidates. I address factors such as these in the following equation:

$$\text{PrimVoteShare}_{ipt} = f(\text{Position})_{ipt} + \zeta \text{NumCands}_{pt} + \upsilon \text{CandType}_{ipt} + \alpha_p + \gamma_t + \epsilon_{pt}. \quad (3)$$

The outcome variable $\text{PrimVoteShare}_{ipt}$ is candidate $i$'s share of the vote in primary $p$ in year $t$. A flexible function of the key explanatory variable, candidate $i$'s position in primary $p$ in year $t$, stands in for different specifications of the platform and contribution based estimates. I first include linear and quadratic terms[28] and subset by party, and I also take the absolute value and pool across party. By including fixed effect $\alpha_p$, I estimate the effect of candidate positions on primary vote share using only variation within the same district and party.[29] This accounts for the time-invariant differences in voter preferences, supply of candidates, and political contexts across primary constituencies. However, I also

[28] I demean positions to increase interpretability and reduce multicollinearity between the terms.

[29] More specifically, I include a district-party-census cycle fixed effect as districts may be redrawn after each census.

include fixed effect $\gamma_t$ to account for potential secular changes such as nationalization and presidential versus midterm years. Additionally, NumCands$_{pt}$ accounts for candidates running in less crowded fields receiving larger vote shares,[30] and CandType$_{ipt}$ controls for potentially spurious relationships caused by challengers tending to both take more extreme positions and receive lower vote shares than incumbents. In sum, this model captures whether candidates with more extreme positions receive higher primary vote shares compared to other candidates who have run in the same party's primary in the same district, while also controlling for time trends, typical vote for the type of candidate, and primary field size.

Investigating how candidates' positions relate to their share of primary contributions is analogous to Equation 3, with the only difference being the dependent variable. Instead of her share of the primary vote, I calculate candidate $i$'s share of the total direct itemized contributions received by candidates in primary $p$ in year $t$:

$$\text{PrimContShare}_{ipt} = f(\text{Position})_{ipt} + \zeta\text{NumCands}_{pt} + \upsilon\text{CandType}_{ipt} + \alpha_p + \gamma_t + \epsilon_{pt}. \quad (4)$$

## Conclusions Differ Markedly by Measure

The findings reported in Table 3 suggest that across districts, candidates' platforms — but not their contribution networks — are responsive to the partisanship of their prospective constituencies. As a district's Democratic presidential vote share increases by 10 percentage points, candidates' platforms are expected to become 10% of a standard deviation more liberal for Democrats and 16% of a standard deviation more liberal (or less conservative) for Republicans. In contrast, Democrats' CF scores actually become 4% of a standard deviation less liberal as district Democratic vote share increases by 10 percentage points,

[30] Including indicators for each possible number of candidates shows that the relationship between candidate number and primary vote share is highly linear.

**Table 3.** Relationship Between District Partisanship and Candidate Positions, 2016–2024

| | Campaign Platform Position | | Recipient CF Score | |
|---|---|---|---|---|
| | Democrats | Republicans | Democrats | Republicans |
| District Dem. Partisanship | -0.010*** | -0.016*** | 0.004*** | 0.000 |
| | (0.001) | (0.002) | (0.001) | (0.001) |
| Open Seat Candidate | -0.011 | 0.424*** | -0.103*** | 0.085*** |
| | (0.039) | (0.045) | (0.028) | (0.023) |
| Primary Challenger | 0.149** | 0.503*** | -0.103* | 0.186*** |
| | (0.048) | (0.049) | (0.045) | (0.036) |
| General Challenger | 0.029 | 0.390*** | -0.219*** | 0.167*** |
| | (0.043) | (0.057) | (0.032) | (0.032) |
| Year Fixed Effects | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,837 | 1,994 | 1,837 | 1,994 |
| R-Squared | 0.145 | 0.177 | 0.163 | 0.043 |

*Note:* Parameters from Equation 2 with candidate-clustered standard errors in parentheses. District partisanship is most recent Democratic two-party presidential vote share, ranging from 0 to 100. Dependent variables both increase with conservatism and were originally scaled to have mean 0 SD 1.
*p<0.05; **p<0.01; ***p<0.001

and there is no meaningful relationship between district partisanship and Republicans' CF scores. Republican non-incumbents' campaign platforms appear much more conservative than those of Republican incumbents, while Democratic primary challengers' are more moderate than Democratic incumbents' — but the CF scores of non-incumbents are substantially more extreme than those of incumbents across both parties.[31] Despite the fact that campaign platforms are highly responsive to district partisan lean, relying on existing measures would lead to the conclusion that candidates are entirely unresponsive. In reality, candidates' campaign platforms, but not their contribution networks, vary systematically by district partisanship.

Within district, primary voters seem to reward moderation as measured by contribution networks, but not campaign platforms. In Table 4, the coefficient on the quadratic term suggests that Democrats' primary vote share decreases the further their platform deviates from that of the average Democrat. However, the coefficient on the linear term

[31]The stronger finding for the comparative extremism of non-incumbents among Republicans is consistent with patterns of state legislators running for the House (Phillips, Snyder, and Hall 2024).

**Table 4.** Relationship Between Candidate Positions and Primary Electoral Success, 2016–2024

| Position Measure: | Campaign Platform | | | Recipient CF Score | | |
|---|---|---|---|---|---|---|
| | DV: Primary Vote Share | | | | | |
| | Dem | Rep | All | Dem | Rep | All |
| Candidate Position | -0.041*** | 0.007 | | 0.111*** | -0.042*** | |
| | (0.011) | (0.008) | | (0.026) | (0.012) | |
| Candidate Position$^2$ | -0.048*** | -0.006 | | -0.125*** | -0.055*** | |
| | (0.013) | (0.007) | | (0.034) | (0.009) | |
| \| Candidate Position \| | | | 0.019* | | | -0.032** |
| | | | (0.008) | | | (0.012) |
| District-Party-Census FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Candidate Type FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,711 | 1,903 | 3,614 | 1,711 | 1,903 | 3,614 |
| R-Squared | 0.825 | 0.864 | 0.840 | 0.825 | 0.867 | 0.840 |

*Note:* Parameters from Equation 3 with primary-clustered standard errors in parentheses. Both candidate position measures increase with conservatism, were originally scaled to have mean 0 and SD 1, and are demeaned in quadratic models. Controls include candidate type and number of primary candidates.
$^{*}p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$

shows that primary voters penalize platforms which are more *moderate* than the average Democratic platform far more than extreme platforms. No linear nor quadratic relationship between campaign platforms and primary vote share is detected among Republicans. Pooling across party, the absolute value model is consistent with primary voters overall rewarding candidates with more extreme platforms. Conversely, there is strong evidence that primary voters punish extremism as measured by CF scores. While primary vote share decreases as CF scores deviate from the average co-partisan CF score, both Democrats' and Republicans' vote shares decrease much more rapidly as their CF scores become more extreme, as confirmed by the large penalty associated with larger absolute CF scores. Compared to others who ran in the same district's primary, candidates with more moderate campaign contribution networks perform better electorally in primaries, but there are no such returns to moderation for their campaign platforms.

In addition to primary electoral performance, Table 5 also suggests that there are primary fundraising advantages associated with a more moderate contribution network, but

**Table 5.** Relationship Between Candidate Positions and Primary Fundraising Success, 2016–2024

| Position Measure: | Campaign Platform | | | Recipient CF Score | | |
|---|---|---|---|---|---|---|
| | DV: Share of Total Direct Primary Contributions | | | | | |
| | Dem | Rep | All | Dem | Rep | All |
| Candidate Position | -0.068** | -0.005 | | 0.219*** | -0.149*** | |
| | (0.024) | (0.017) | | (0.052) | (0.030) | |
| Candidate Position$^2$ | -0.089*** | 0.004 | | -0.178*** | -0.134*** | |
| | (0.023) | (0.015) | | (0.038) | (0.020) | |
| \| Candidate Position \| | | | 0.019 | | | -0.131*** |
| | | | (0.017) | | | (0.027) |
| District-Party-Census FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Candidate Type FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,676 | 1,898 | 3,574 | 1,676 | 1,898 | 3,574 |
| R-Squared | 0.629 | 0.700 | 0.659 | 0.630 | 0.712 | 0.664 |

*Note:* Parameters from Equation 4 with primary-clustered standard errors in parentheses. Both candidate position measures increase with conservatism, were originally scaled to have mean 0 and SD 1, and are demeaned in quadratic models. $^*p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$

not a more moderate campaign platform. The quadratic loss in share of primary contributions as candidates' CF scores move further from their average co-partisan is highly similar to the primary vote share pattern. Once again, however, Republicans and Democrats alike are penalized far more if their CF scores are more *extreme* than their co-partisans' average, and one standard deviation increase in CF score extremism is associated with a 13 percentage point decrease in a candidate's share of primary contributions. Given that CF scores are based on campaign contributions, a significant relationship between candidates' CF scores and their primary fundraising performance may be unsurprising. As discussed later, this potential endogeneity highlights an additional benefit of estimating candidates' positions independently of their fundraising when investigating relationships between the two. In contrast, campaign platform moderation appears to be — if anything — punished by donors in primaries. Relying solely on existing measures would imply that moderation is financially advantageous in our current era of primaries, despite the fact that there appears to be no fundraising benefit of adopting a moderate campaign platform.

These findings are relatively robust to a number of alternative specifications and across different contribution-based estimates of candidate positions, all of which can be found in Appendix C. Consistent with Table 3, I show that even incumbents' and primary winners' CF scores do not grow significantly more liberal in more Democratic districts. Additionally, using indicators for primary winners and top fundraisers — a measure more standardized across primaries — produces results qualitatively identical to those of the shares-based models in Tables 4 and 5. Finally, I reproduce Tables 3, 4, and 5 using two variations of CF scores which are still reliant on campaign contributions, yet may be more similar to the platform-based measure: dynamic CF, which holds contributors' positions constant while re-estimating recipients each cycle, and DW-DIME, which projects candidates into the DW-NOMINATE space by applying machine learning to contributions and roll-call records. While candidates' DW-DIME scores are more responsive to their districts than their CF scores, other results with DW-DIME and dynamic CF scores are qualitatively similar to those obtained with original CF scores.[32]

Taken together, the analyses have wide-ranging implications for debates regarding nationalization and polarization, on which existing evidence is mixed. The responsiveness of campaign platforms and unresponsiveness of donor networks to candidates' districts provides new evidence that candidates' rhetoric has remained relatively district-tailored despite the nationalization of donor behavior. Within districts, the lack of financial and electoral penalty to extreme platforms coupled with the penalties to extreme contribution networks is consistent with primary donors and voters viewing support from diverse swaths of the party as a signal of candidate's capacity to wage a strong general election campaign, and valuing this over the particular positions adopted in candidates' platforms. Overall, comparing results from platform-based and contribution-based models of candidate positions highlights how focusing on just one of various aspects of campaigns can lead to vastly different implications about incentives currently faced by candidates.

[32]For the sake of comparison, all tables with alternative contribution-based measures also include the platform-based results restricted to the sample of candidates covered by the contribution-based measure.

## Discussion and Future Avenues

Candidate positioning has long been a cornerstone of both normative and positive political theory. It is therefore unsurprising that many important debates in American politics continue to revolve around the concept. In our nationalized era where a legislator's first successful election is typically her most difficult, whether the district still matters to candidates has critical implications for quality of dyadic responsiveness. And as primary elections have become increasingly consequential for election outcomes, understanding whether voters and donors reward extremism in primaries can shed light on how partisan primary systems may or may not contribute to congressional polarization. To date, evidence on these questions has been decidedly mixed and relies primarily on one aspect of candidates' activity to estimate their positions: campaign contributions. How responsive are candidates' stated positions to their prospective constituents, and how do candidates who articulate extreme positions fare in primaries?

Leveraging the most comprehensive collection of House campaign website platforms to date, I provide novel evidence that conclusions about the nature of polarization and nationalization in our current era may be highly dependent on how candidates' positions are measured. While candidates' platforms are systematically responsive to their districts, existing approaches show no such responsiveness. Moreover, existing approaches suggest that voters and donors punish extremism in primaries, while I find no financial nor electoral penalties to extreme campaign platforms. Neither set of results is more "correct" than the other; rather, it is instructive to take stock of what each measure actually captures. The findings imply that donor behavior has potentially nationalized to a greater extent than candidate behavior, and primary voters and donors reward moderation in candidates' contribution networks, but not moderation in their campaign platforms.

What exactly accounts for differences in platform-based and contribution-based estimates of candidates' positions, and consequently the results obtained using each? While

not directly comparable, in Appendix D a couple of noteworthy patterns emerge when investigating candidates' differences in ordered rankings between the two measures. First, compared to non-incumbents', incumbents' CF scores are consistently ranked more moderately than their campaign platforms. Second, there is a strong relationship between district partisanship and candidates' ranking difference, with candidates' CF scores ranked more liberal than their platforms in more heavily Republican districts and CF scores ranking more conservative than platforms in more heavily Democratic districts. These patterns are consistent with a number of explanations, including non-expressive donor behavior or the use of campaign platforms to superficially pander to voters. Measuring candidates' public rhetoric separately from their campaign contributions allows for substantive investigation of relationships between the two, an avenue particularly ripe for future research.

Considering the differences between contribution-based and platform-based measures of candidates' positions can also provide guidance on whether one may be more suitable to answer a given research question than the other. Because donors may possess information about candidates which is private or found outside of an electoral context, contribution-based measures may track variation in candidates' "true" beliefs more closely than do measures based on candidates' platforms, which are at least partly the product of strategic electioneering. Contribution-based measures also offer coverage of congressional candidates through the 1980s, whereas adoption of campaign websites only became relatively widespread by 2010. On the other hand, the use of platform-based measures is most appropriate when investigating relationships involving campaign finance, as contribution-based measures cannot be fully disentangled from candidates' financial support. Additionally, since platforms are more explicitly public-facing, platform-based measures may be better suited to address questions concerning campaign strategy or public response to candidate positions. However, in contexts where both seem relatively appropriate, including multiple measures of candidates' positions can help illuminate and clarify whether conclusions only apply to certain aspects of candidacies.

# References


Abramowitz, Alan I., and Steven Webster. 2016. "The rise of negative partisanship and the nationalization of U.S. elections in the 21st century." *Electoral Studies* 41: 12–22.

Abramowitz, Alan I., Brad Alexander, and Matthew Gunning. 2006. "Incumbency, Redistricting, and the Decline of Competition in U.S. House Elections." *Journal of Politics* 68(1): 75–88.

Adams, James, and Samuel Merrill. 2014. "Candidates' policy strategies in primary elections: does strategic voting by the primary electorate matter?" *Public Choice* 160(1-2): 7–24.

Adams, James, Erik Engstrom, Danielle Joeston, Walt Stone, Jon Rogowski, and Boris Shor. 2017. "Do Moderate Voters Weigh Candidates' Ideologies? Voters' Decision Rules in the 2010 Congressional Elections." *Political Behavior* 39(1): 205–227.

Anderson, Sarah, Daniel M. Butler, and Laurel Harbridge-Yong. 2020. *Rejecting Compromise: Legislators' Fear of Primary Voters*. Cambridge University Press.

Ansolabehere, Stephen, James M. Snyder, and Charles Stewart. 2001. "Candidate Positioning in U.S. House Elections." *American Journal of Political Science* 45(1): 136–159.

Aranson, Peter H., and Peter C. Ordeshook. 1972. "Spatial strategies for sequential elections." *Probability models of collective decision making* 298.

Arnold, R. Douglas. 1990. *The Logic of Congressional Action*. Yale University Press.

Austen-Smith, David. 1995. "Campaign Contributions and Access." *The American Political Science Review* 89(3): 566–581.

Bafumi, Joseph, and Michael C. Herron. 2010. "Leapfrog Representation and Extremism: A Study of American Voters and Their Members in Congress." *American Political Science Review* 104(3): 519–542.

Banks, Jeffrey S. 1990. "A model of electoral competition with incomplete information." *Journal of Economic Theory* 50(2): 309–325.

Barber, Michael. 2016*a*. "Donation Motivations: Testing Theories of Access and Ideology." *Political Research Quarterly* 69(1): 148–159.

Barber, Michael. 2022. "Comparing Campaign Finance and Vote-Based Measures of Ideology." *The Journal of Politics* 84(1): 613–619.

Barber, Michael, Brandice Canes-Wrone, Joshua Clinton, and Gregory Huber. N.d. "Donors and Dollars: Comparing the Policy Views of Donors and the Affluent." *Journal of Politics*: Forthcoming.

Barber, Michael J. 2016*b*. "Ideological Donors, Contribution Limits, and the Polarization of American Legislatures." *Journal of Politics* 78(1): 296–310.

Baron, David P. 1994. "Electoral Competition with Informed and Uniformed Voters." *American Political Science Review* 88(1): 33–47.

Bateman, David A., Joshua D. Clinton, and John S. Lapinski. 2017. "A House Divided? Roll Calls, Polarization, and Policy Differences in the U.S. House, 1877–2011." *American Journal of Political Science* 61(3): 698–714.

Bawn, Kathleen, Martin Cohen, David Karol, Seth Masket, Hans Noel, and John Zaller. 2012. "A Theory of Political Parties: Groups, Policy Demands and Nominations in American Politics." *Perspectives on Politics* 10(3): 571–597.

Bonica, Adam. 2013. "Ideology and Interests in the Political Marketplace." *American Journal of Political Science* 57(2): 294–311.

Bonica, Adam. 2014. "Mapping the Ideological Marketplace." *American Journal of Political Science* 58(2): 367–386.

Bonica, Adam. 2024. "Database on Ideology, Money in Politics, and Elections: Public version 4.0 [Computer file]. Stanford, CA: Stanford University Libraries. https://data.stanford.edu/dime." Stanford University Libraries.

Bonica, Adam, and Gary W Cox. 2018. "Ideological Extremists in the U.S. Congress: Out of Step but Still in Office." *Quarterly Journal of Political Science* 13(1): 207–236.

Brady, David W., Hahrie Han, and Jeremy C. Pope. 2007. "Primary Elections and Candidate Ideology: Out of Step with the Primary Electorate?" *Legislative Studies Quarterly* 32(1): 79–105.

Burden, Barry C. 2004. "Candidate Positioning in US Congressional Elections." *British Journal of Political Science* 34(2): 211–227.

Cameron, Charles M, and James M Enelow. 1992. "Asymmetric policy effects, campaign contributions, and the spatial theory of elections." *Mathematical and Computer Modelling* 16(8-9): 117–132.

Canes-Wrone, Brandice, and Michael R. Kistner. 2022. "Out of Step and Still in Congress? Electoral Consequences of Incumbent and Challenger Positioning Across Time." *Quarterly Journal of Political Science* 17(3): 389–420.

Canes-Wrone, Brandice, David W. Brady, and John F. Cogan. 2002. "Out of Step, Out of Office: Electoral Accountability and House Members' Voting." *American Political Science Review* 96(1): 127–140.

Carson, Jamie L., and Ryan D. Williamson. 2018. "Candidate ideology and electoral success in congressional elections." *Public Choice* 176(1): 175–192.

Clinton, Joshua D. 2012. "Using Roll Call Estimates to Test Models of Politics." *Annual Review of Political Science* 15(1): 79–99.

Clinton, Joshua, Simon Jackman, and Douglas Rivers. 2004. "The Statistical Analysis of Roll Call Data." *American Political Science Review* 98(2): 355–370.

Cohen, Marty, David Karol, Hans Noel, and John Zaller. 2008. *The Party Decides: Presidential Nominations Before and After Reform*. Illustrated edition ed. Chicago: University of Chicago Press.

Cowburn, Mike, and Marius Sältzer. 2024. "Partisan communication in two-stage elections: the effect of primaries on intra-campaign positional shifts in congressional elections." *Political Science Research and Methods*: Forthcoming.

Cox, Gary W., and Mathew D. McCubbins. 2005. *Setting the Agenda: Responsible Party Government in the U.S. House of Representatives*. Cambridge University Press.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper.

Druckman, James N., Cari Lynn Hennessy, Martin J. Kifer, and Michael Parkin. 2010. "Issue Engagement on Congressional Candidate Web Sites, 2002—2006." *Social Science Computer Review* 28(1): 3–23.

Druckman, James N., Martin J. Kifer, and Michael Parkin. 2009. "Campaign Communications in U.S. Congressional Elections." *American Political Science Review* 103(3): 343–366.

Egerod, Benjamin C.K., and Robert Klemmensen. 2020. "Scaling Political Positions from Text: Assumptions, Methods and Pitfalls." In *The SAGE Handbook of Research Methods in Political Science and International Relations*. SAGE Publications , 498–521.

Enelow, James M., and Melvin J. Hinich. 1982. "Ideology, Issues, and the Spatial Theory of Elections." *American Political Science Review* 76(3): 493–501.

Enelow, James M., and Melvin J. Hinich. 1984. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press.

Gimpel, James G., Frances E. Lee, and Shanna Pearson-Merkowitz. 2008. "The Check Is in the Mail: Interdistrict Funding Flows in Congressional Elections." *American Journal of Political Science* 52(2): 373–394.

Grimmer, Justin, and Brandon M. Stewart. 2013. "Text as Data: The Promise and Pitfalls of Automatic Content Analysis Methods for Political Texts." *Political Analysis* 21(3): 267–297.

Hall, Andrew B. 2015. "What Happens When Extremists Win Primaries?" *American Political Science Review* 109(1): 18–42.

Hall, Andrew B, and James M Snyder. 2015. "Candidate Ideology and Electoral Success." : Forthcoming.

Hall, Richard L., and Frank W. Wayman. 1990. "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees." *The American Political Science Review* 84(3): 797–820.

Herrnson, Paul S., Costas Panagopoulos, and Kendall L. Bailey. 2020. *Congressional Elections: Campaigning at Home and in Washington*. CQ Press.

Hill, Seth J. 2015. "Institution of Nomination and the Policy Ideology of Primary Electorates." *Quarterly Journal of Political Science* 10(4): 461–487.

Hirano, Shigeo. 2010. "Primary Elections and Partisan Polarization in the U.S. Congress." *Quarterly Journal of Political Science* 5(2): 169–191.

Hirano, Shigeo, and James M. Snyder. 2019. *Primary Elections in the United States*. Cambridge: Cambridge University Press.

Hopkins, Daniel J. 2018. *The Increasingly United States: How and Why American Political Behavior Nationalized*. 1 edition ed. Chicago: University of Chicago Press.

Jacobson, Gary C. 1990. "The Effects of Campaign Spending in House Elections: New Evidence for Old Arguments." *American Journal of Political Science* 34(2): 334–362.

Jacobson, Gary C. 2015. "It's Nothing Personal: The Decline of the Incumbency Advantage in US House Elections." *Journal of Politics* 77(3): 861–873.

Kalla, Joshua L., and David E. Broockman. 2016. "Campaign Contributions Facilitate Access to Congressional Officials: A Randomized Field Experiment." *American Journal of Political Science* 60(3): 545–558.

Kalla, Joshua L., and David E. Broockman. 2018. "The Minimal Persuasive Effects of Campaign Contact in General Elections: Evidence from 49 Field Experiments." *American Political Science Review* 112(1): 148–166.

King, Aaron S., Frank J. Orlando, and David B. Sparks. 2016. "Ideological Extremity and Success in Primary Elections: Drawing Inferences From the Twitter Network." *Social Science Computer Review* 34(4): 395–415.

Kujala, Jordan. 2020. "Donors, Primary Elections, and Polarization in the United States." *American Journal of Political Science* 64(3): 587–602.

La Raja, Raymond, and Brian Schaffner. 2015. *Campaign Finance and Political Polarization: When Purists Prevail*. University of Michigan Press.

Lauderdale, Benjamin E., and Alexander Herzog. 2016. "Measuring Political Positions from Legislative Speech." *Political Analysis* 24(3): 374–394.

Laver, Michael, Kenneth Benoit, and John Garry. 2003. "Extracting Policy Positions from Political Texts Using Words as Data." *American Political Science Review* 97(02).

Lee, Frances E. 2016. *Insecure Majorities: Congress and the Perpetual Campaign*. University of Chicago Press.

Lewis, Jeffrey B., Keith Poole, Howard Rosenthal, Aaron Rudkin, Adam Boche, and Luke Sonnet. 2025. "Voteview: Congressional Roll-Call Votes Database.".

Lockhart, Mackenzie, and Seth J. Hill. 2023. "How Do General Election Incentives Affect the Visible and Invisible Primary?" *Legislative Studies Quarterly* 48(4): 833–867.

Lowe, Will, Kenneth Benoit, Slava Mikhaylov, and Michael Laver. 2011. "Scaling Policy Preferences from Coded Political Texts." *Legislative Studies Quarterly* 36(1): 123–155.

Martin, Gregory J., and Joshua McCrain. 2019. "Local News and National Politics." *American Political Science Review* 113(2): 372–384.

McCarty, Nolan, Keith T. Poole, and Howard Rosenthal. 2016. *Polarized America: The Dance of Ideology and Unequal Riches*. MIT Press.

McGhee, Eric, Seth Masket, Boris Shor, Steven Rogers, and Nolan McCarty. 2014. "A Primary Cause of Partisanship? Nomination Systems and Legislator Ideology." *American Journal of Political Science* 58(2): 337–351.

Meirowitz, Adam. 2005. "Informational Party Primaries and Strategic Ambiguity." *Journal of Theoretical Politics* 17(1): 107–136.

Meisels, Mellissa, Joshua D. Clinton, and Gregory A. Huber. 2024. "Giving to the Extreme? Experimental Evidence on Donor Response to Candidate and District Characteristics." *British Journal of Political Science* 54(3): 851–873.

Milita, Kerri, John Barry Ryan, and Elizabeth N. Simas. 2014. "Nothing to Hide, Nowhere to Run, or Nothing to Lose: Candidate Position-Taking in Congressional Elections." *Political Behavior* 36(2): 427–449.

Miller, Warren E., and Donald E. Stokes. 1963. "Constituency Influence in Congress." *American Political Science Review* 57(1): 45–56.

Moskowitz, Daniel J. 2021. "Local News, Information, and the Nationalization of U.S. Elections." *American Political Science Review* 115(1): 114–129.

Nyhan, Brendan, and Jacob M. Montgomery. 2015. "Connecting the Candidates: Consultant Networks and the Diffusion of Campaign Strategy in American Congressional Elections." *American Journal of Political Science* 59(2): 292–308.

Patty, John W., and Elizabeth Maggie Penn. 2019. "Are Moderates Better Representatives than Extremists? A Theory of Indirect Representation." *American Political Science Review* 113(3): 743–761.

Phillips, Connor Halloran, James M. Jr. Snyder, and Andrew B. Hall. 2024. "Who Runs for Congress? A Study of State Legislators and Congressional Polarization." *Quarterly Journal of Political Science* 19(1): 1–25.

Poole, Keith T. 2005. "Spatial Models of Parliamentary Voting.".

Poole, Keith T., and Howard Rosenthal. 1991. "Patterns of Congressional Voting." *American Journal of Political Science* 35(1): 228–278.

Porter, Rachel, Sarah A. Treul, and Maura McDonald. 2024. "Changing the Dialogue: Descriptive Candidacies and Position Taking in Campaigns for the US House of Representatives." *The Journal of Politics* 86(2): 458–474.

Rheault, Ludovic, and Christopher Cochrane. 2020. "Word Embeddings for the Analysis of Ideological Placement in Parliamentary Corpora." *Political Analysis* 28(1): 112–133.

Rhodes, Jesse H., Brian F. Schaffner, and Raymond J. La Raja. 2018. "Detecting and Understanding Donor Strategies in Midterm Elections." *Political Research Quarterly* 71(3): 503–516.

Rogowski, Jon C. 2014. "Electoral Choice, Ideological Conflict, and Political Participation." *American Journal of Political Science* 58(2): 479–494.

Sides, John, Chris Tausanovitch, Lynn Vavreck, and Christopher Warshaw. 2018. "On the Representativeness of Primary Electorates." *British Journal of Political Science*: Forthcoming.

Sievert, Joel, and Stephanie Mathiasen. 2023. "Out-of-State Donors and Nationalized Politics in U.S. Senate Elections." *The Forum*: Forthcoming.

Slapin, Jonathan B., and Sven-Oliver Proksch. 2008. "A Scaling Model for Estimating Time-Series Party Positions from Texts." *American Journal of Political Science* 52(3): 705–722.

Stone, Walter J., and Elizabeth N. Simas. 2010. "Candidate Valence and Ideological Positions in U.S. House Elections." *American Journal of Political Science* 54(2): 371–388.

Sulkin, Tracy, Cortney M. Moriarty, and Veronica Hefner. 2007. "Congressional Candidates' Issue Agendas On- and Off-line." *Harvard International Journal of Press/Politics* 12(2): 63–79.

Temporão, Mickael, Corentin Vande Kerckhove, Clifton Van Der Linden, Yannick Dufresne, and Julien M. Hendrickx. 2018. "Ideological Scaling of Social Media Users: A Dynamic Lexicon Approach." *Political Analysis* 26(4): 457–473.

Theriault, Sean M. 2006. "Party Polarization in the US Congress: Member Replacement and Member Adaptation." *Party Politics* 12(4): 483–503.

Thomsen, Danielle M. 2023. "Competition in Congressional Elections: Money versus Votes." *American Political Science Review* 117(2): 675–691.

Utych, Stephen M. 2020. "Man Bites Blue Dog: Are Moderates Really More Electable than Ideologues?" *Journal of Politics* 82(1): 392–396.

Vafa, Keyon, Suresh Naidu, and David Blei. 2020. "Text-Based Ideal Points." Paper presented at the Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics, Online.

Woon, Jonathan. 2018. "Primaries and Candidate Polarization: Behavioral Theory and Experimental Evidence." *American Political Science Review* 112(4): 826–843.

# Appendix

## Contents



# A Data Collection Details

## A.1 Workflow

**Identifying relevant candidates.** I used Ballotpedia.com to identify all candidates who appeared on a Republican or Democratic primary ballot in each district in 2016, 2018, 2020, 2022, and 2024, as well as take down the primary election date and candidate type (incumbent/open seat/challenger). Independent, write-in, and dropout candidates were excluded, as well as candidates who ran in the primaries in the table below.

**Table A1.** Excluded Primary Races

| Locale | Reason |
|---|---|
| Alaska, 2022 and 2024 | Top-4 |
| California | Top-2 |
| Connecticut | Party Convention |
| Louisiana | Top-2 |
| Utah | Party Convention |
| Virginia, 2016, Democratic: Districts 5,7,1,6,9,10 | Party Convention |
| Virginia, 2016, Republican: Districts 3,8,5,11,7 | Party Convention |
| Virginia, 2018, Democratic: District 5 | Party Convention |
| Virginia, 2018, Republican: District 5,8,3,7,6 | Party Convention |
| Virginia, 2020, Democratic: District 9 | Party Convention |
| Virginia, 2020, Republican: District 8,5,10,11,4,7 | Party Convention |
| Virginia, 2022, Republican: District 8,5,10,11 | Party Convention |
| Washington | Top-2 |

*Source:* Footnotes of FEC primary date calendars.

**Searching for campaign websites in real time.** Data on 2022 and 2024 primary candidates were collected in real time. Candidates' web pages were accessed as immediately as possible before their primary, always within a week of the election date. I first performed a web search for "[candidate name] for Congress [election year]". Official governmental websites and social media sites were ignored. If no website appearing to be the candidate's campaign website appeared in the first page of search results, I added the district (e.g. "AL-1") to the search terms. If nothing appeared, I then consulted Politics1.com and Ballotpedia.com, which compile fairly reliable lists of candidates' campaign websites at various levels of government. If no non-social media website or non-governmental campaign website was found, I moved on to the next candidate. Although it is possible that some candidate websites eluded this data collection process, websites that were not found while deliberating searching via numerous steps were not readily accessible to members of the public, activists, or journalists, who would almost certainly devote less effort to find them.

**Searching for archived campaign websites.** For candidates who ran in 2016, 2018, and 2020, the process was identical to that outlined above, with an added step of access-

ing the archived website as it appeared at the relevant time via the Wayback Machine (archive.org). I first performed a web site for "[candidate name] for Congress [election year]". Some candidates ran in more recent elections and maintained a new website at the same URL which hosted their campaign website during the election year of interest. Because many candidates delete their campaign websites after losing election, I likewise consulted historic versions of Politics1.com and Ballotpedia.com. Once a potential historic campaign website URL was identified, I pasted it into the Wayback Machine and accessed the snapshot of the website most immediately before the date of the primary. While these archives ranged in time from very close to the primary to months before the primary, I also recorded the date of the archive version.

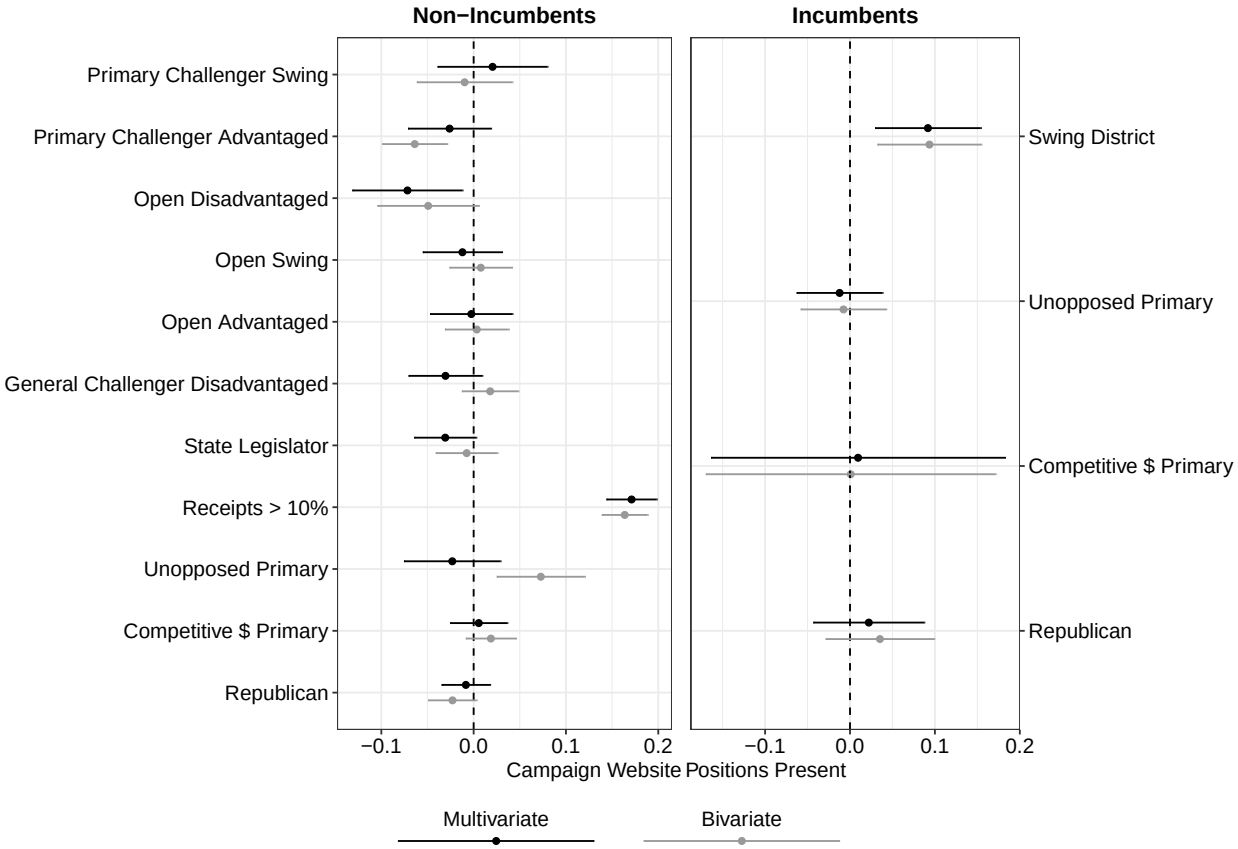
**Identifying issue positions.** The vast majority of campaign websites had clearly delineated pages or sections for policy platforms, issue positions, or candidate priorities. If the area devoted to positions was not readily obvious in the website architecture, I surveyed the entirety of the website for other places where one might find issue positions. I do not consider candidate biographies, endorsement lists, campaign updates, or volunteer/donation pages to be issue positions. Many incumbent candidates (and some candidates with state legislative experience) devoted a section of the website to their legislative achievements, and these were nearly always separate from issue position pages. I excluded pages devoted exclusively to legislative achievements, but some candidates relate positions on their issue pages to legislative achievements, all of which I include as issue positions. If a campaign website with issue position content was successfully accessed, the URL was recorded in a spreadsheet.

**Collecting issue position text.** Once issue position content was identified, I manually copied and pasted all of the associated positioning text — including the section header, issue stances, and candidate quotes — from each sub-issue page or section into one .txt file titled the candidate's name and election year. I also captured the website content exactly as it appeared with a combination of manual screen capture and automated screen capture

via the Awesome Screenshot extension on Google Chrome.

## A.2 Sample Representativeness

**Figure A1.** Determinants of Primary Campaign Website Positions, 2016 – 2024




*Note:* Coefficients and 95% confidence intervals from linear probability models predicting presence of campaign website issue positions during primary. All models include year fixed effects and cluster standard errors at the candidate level.

# B Technical Scaling Details

## B.1 Text Processing Flow

To prepare the text of primary candidates' issue positions for scaling, I build a corpus of documents, or a collection of all individual primary campaign platforms. I then tokenize each document's text with terms standardized to all-lowercase and remove punctuation. Next, I preserve key non-unigram phrases found by compounding the separate terms.

To improve computing performance, I remove "stop words" such as "and", "for", and "of", which are used very frequently and provide negligible substantive information. I then reduce terms to their stems in order to combine terms that have the same central meaning yet slightly different suffixes and prefixes — for example, "reduce", "reduction", and "reducing" share the stem "reduc".

When utilizing unsupervised scaling methods, it is important to ensure that the dimension of interest — here, a left-right, issue-based dimension — is the dominant dimension structuring rhetorical discourse within the corupus. As such, it is beneficial to discard terms that are irrelevant to the dimension of interest and relevant to an orthogonal dimension within which the algorithm may get "stuck" (Grimmer and Stewart 2013; Egerod and Klemmensen 2020). I discard terms related to congressional procedure, which are overwhelmingly used by sitting legislators, as well as commonly-used geographical terms, in order to protect against identifying an incumbency-based dimension or region-based dimension. In practice, this refinement is inconsequential to the vast majority of primary candidates' position estimates as illustrated by the strong correlation between estimates with and without these terms and the non-unigrams shown in the left panel of Table B1. To improve computing time and drop other terms uninformative of the global dimension, I discard terms used in 100 campaign platforms or fewer — a lenient requirement given that the corpus consists of almost 5,000 campaign platforms.

**Table B1.** Scaling Refinements

| Procedural Terms Dropped | Non-Unigram Terms Included |
|---|---|
| "hr", "h.r", "co-chair","congresswoman", "congressman", "co-sponsor", "reauthor", "codify", "chair", "caucus", "introduce", "introduced", "passage", "subcommittee","cosponsor", "committee", "lawmaking", "lawmaker", "mayor", "congress", "chairman", "speaker", "legislature", "re-elect", "hyperlink","website" | "first amendment", "1st amendment", "second amendment", "2nd amendment", "planned parenthood", "right to bear arms", "mandatory minimum", "mandatory minimums", "mental health", "clean energy", "sexual assault", "student loan", "student loans", "sexual violence", "critical race theory", "religious freedom", "reproductive freedom", "freedom of speech", "freedom of expression", "freedom of religion", "cancel culture", "debt ceiling", "balanced budget", "common core", "build the wall", "sanctuary city", "sanctuary cities", "covid 19" |

*Note:* Scaling also excludes names of months and states.

The resulting $\mathbf{N} \times \mathbf{M}$ document-feature matrix consists of $j = 1, ..., m$ term columns, $it = 1, ..., n$ candidate-year rows, and term frequencies as cell entries.

## B.2 Estimation with `wordfish`

`wordfish` (Slapin and Proksch 2008) is an unsupervised machine learning algorithm for scaling political text to infer the source's latent position on a single dimension. Based on a Poisson IRT model, `wordfish` uses an iterative expectation maximization algorithm due to the need to estimate both term-level and candidate-level parameters as a function of observed term usage.

The rate $y$ at which primary candidate $i$ uses term $j$ in election year $t$ is assumed to be drawn from a Poisson distribution, which is characterized by a single parameter $\lambda$ representing both the expectation and variance. This parameter logarithmically links the probability distribution generating the observed term rate to the linear predictors of interest to be estimated:

$$y_{ijt} \sim Poisson(\lambda_{ijt})$$

$$\lambda_{ijt} = exp(\alpha_{it} + \psi_j + \beta_j * \omega_{it})$$

The key parameter is $\omega$, which stands in for candidate $i$'s latent primary campaign position in election $t$. $\beta$ represents word $j$'s weight or, put differently, its importance in discriminating between campaign positions. A word fixed effect $\psi$ captures the rate at which word $j$ is used in general, and a candidate-year fixed effect $\alpha$ captures the verbosity of candidate $i$'s campaign position text in election $t$.

Parameter estimation is initialized with start values consisting of "best guesses" based upon term frequencies. Term fixed effects $\psi_j$ begin as term $j$'s logged average count, while the fixed effect for the first candidate-year $(\alpha_1)$ is set to 0 and $\alpha_{2,\dots,n}$ begin as the logged average word count relative to that of $it = 1$. Start values for term weights $\beta$ and candidate-year positions $\omega$ are the left and right singular vectors obtained from an SVD of the matrix of term and candidate-year residuals. Unsurprisingly, final estimates of $\omega$ correlate highly with nonparametric estimates resulting from a simpler correspondence analysis as shown

in the Alternative Scalings subsection. As such, the methodology from which my primary campaign positions derive bears strong resemblance to the augmented CA methodology used for Bonica's (2014) estimates of candidate ideology.

Estimation proceeds iteratively, with term parameters $\psi$ and $\beta$ first fixed at their start values and candidate-year parameters $\omega$ and $\alpha$ calculated conditionally on the expected term parameters. The following conditional log-likelihood is maximized for each candidate-year:

$$\sum_{j=1}^{m}(-\lambda_{ijt} + ln(\lambda_{ijt}) * y_{ijt})$$

where

$$\lambda_{ijt} = exp(\alpha_{it} + \psi_j^{prev} + \beta_j^{prev} * \omega_{it}).$$

To identify the global directionality of candidate positions $\omega$, a pair of documents (candidate-years) are specified with an inequality constraint. Moreover, the mean of candidate positions across all years is equal to 0 and the standard deviation is set to 1.

Taking the expected values of candidate-year parameters $\omega$ and $\alpha$ obtained previously, term parameters $\psi$ and $\beta$ are then calculated conditionally with the following log-likelihood maximized for each term:

$$\sum_{it=1}^{n}(-\lambda_{ijt} + ln(\lambda_{ijt}) * y_{ijt})$$

where

$$\lambda_{ijt} = exp(\alpha_{it}^{prev} + \psi_j + \beta_j * \omega_{it}^{prev}).$$

The overall log-likelihood of the model with the new parameter estimates is then calculated as the sum of the term log-likelihoods conditional upon the candidate-year log-

likelihoods:

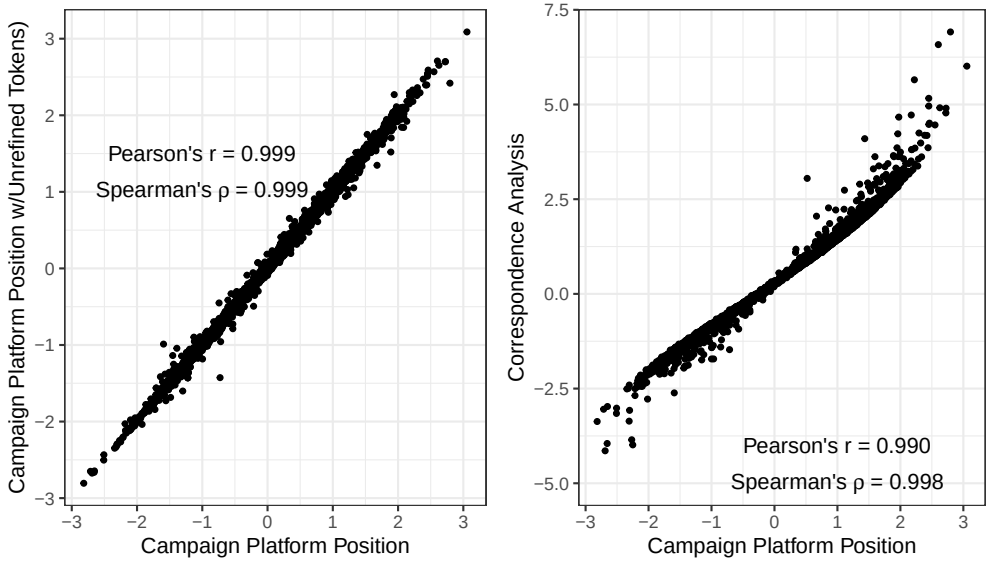
$$\sum_{j}^{m}\sum_{it=1}^{n}(-\lambda_{ijt} + ln(\lambda_{ijt}) * y_{ijt}).$$

The candidate-year parameters are then re-calculated based upon the new term parameters, and the resulting candidate-year parameters are used to repeat the term parameter calculation. The conditional maximum likelihoods are calculated iteratively until the log-posterior reaches a convergence threshold of a one-millionth and the differences in parameter values from the previous iteration are under a hundred-millionth.

## B.3 Alternative Scalings

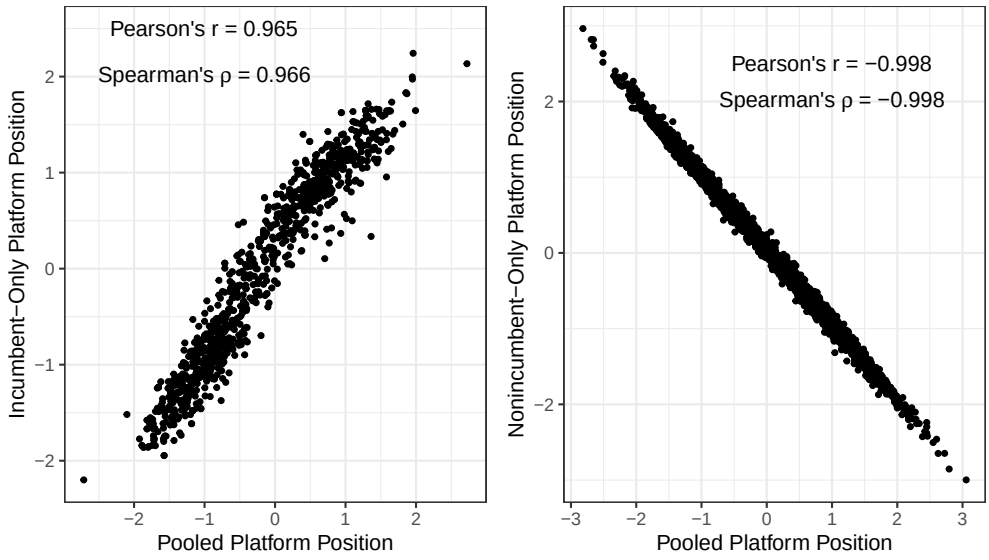
The following figures plot relationships between the main scaling specification and alternative scalings consisting of: leaving the tokens unrefined by keeping procedural and geographic terms and not non-unigrams, simple unidimensional correspondence analysis, incumbent-only scaling, and year-specific scaling. All correlations are above 0.95.

**Figure B1.** Relationship Between Campaign Scores and Alternative Scalings



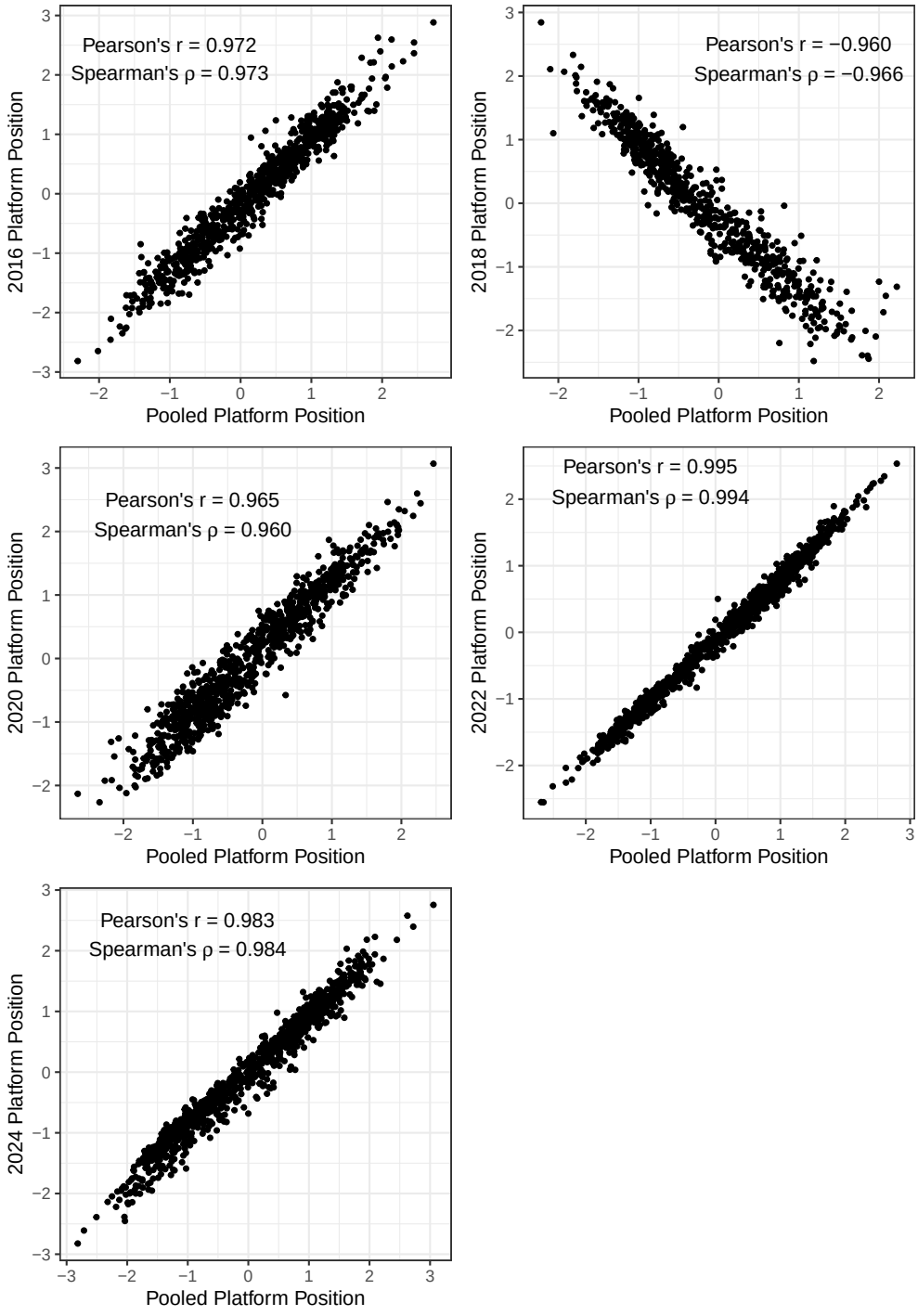

*Note:* Text-based scaling estimates of primary campaign positions along y-axes, estimates from unigram-only scaling including geographic and procedural terms (left) and from unidimensional correspondence analysis (right) along x-axes. Pearson and Spearman's ranking correlations show strong relationships.

**Figure B2.** Campaign Scores From Pooled and Incumbents-Only Scalings




*Note:* Relationship between campaign scores from pooled scaling and incumbent-specific and nonincumbent-specific scalings. Pearson and Spearman's ranking correlations show strong relationships.

**Figure B3.** Relationship Between Campaign Scores From Pooled and Year-Specific Scaling

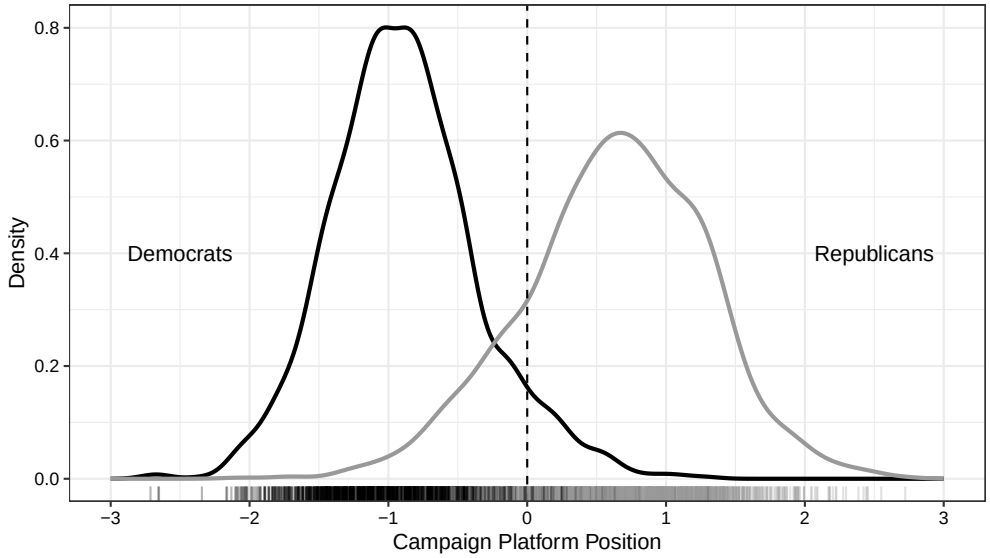



*Note:* Relationship between campaign scores from pooled scaling and each year scaled separately. Pearson and Spearman's ranking correlations show strong relationships.

## B.4 Candidate Viability

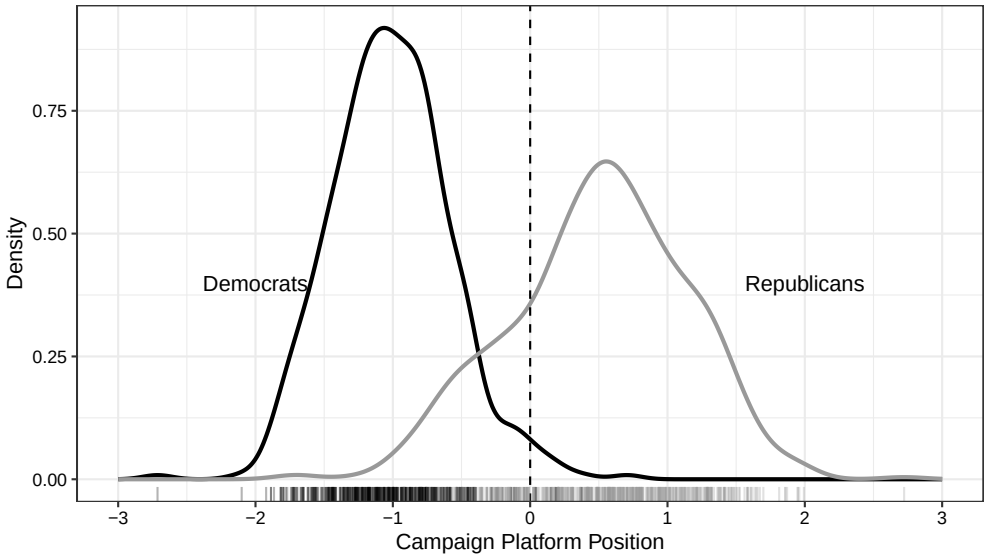
The following figures show that the campaign position distributions of incumbents and candidates who raised at least 10% of their primary's total receipts are similar to the pooled distribution presented in the main text.

**Figure B4.** Distribution of Financially Viable Candidates' Primary Campaign Positions




*Note:* Kernel density plots of $\omega$ estimates from Equation 1 among only candidates who raised at least 10% of primary receipts. Democratic candidates in black and Republican candidates in gray. Negative values indicate more liberal/less conservative.

**Figure B5.** Distribution of Incumbents' Primary Campaign Positions




*Note:* Kernel density plots of $\omega$ estimates from Equation 1 among only incumbents. Democratic candidates in black and Republican candidates in gray. Negative values indicate more liberal/less conservative.

## B.5 Top Discriminating Scaling Terms

Scaling results include word-level discrimination parameter $\beta$ and overall frequency parameter $\psi$. Terms with the highest $\beta$ are those that exert the greatest change to a candidate's campaign position, such that the most positive (negative) terms are most strongly associated with conservative (liberal) positions. The following tables report terms from the main pooled and year-specific scalings sorted by largest negative and positive $\beta$.

**Table B2.** Top 20 Most Conservative and Liberal Terms

| | **Conservative** | $\beta$ (weight) | $\psi$ (FE) | **Liberal** | $\beta$ (weight) | $\psi$ (FE) |
|---|---|---|---|---|---|---|
| 1 | crt | 1.711 | -3.832 | community-bas | -2.073 | -4.616 |
| 2 | woke | 1.694 | -3.643 | renter | -1.966 | -4.604 |
| 3 | tyrann | 1.653 | -3.961 | evict | -1.931 | -4.542 |
| 4 | indoctrin | 1.577 | -3.159 | equit | -1.847 | -3.340 |
| 5 | god | 1.569 | -2.045 | reproduct | -1.688 | -2.142 |
| 6 | god-given | 1.525 | -3.400 | lgbtqia | -1.636 | -3.687 |
| 7 | christian | 1.508 | -2.777 | rental | -1.635 | -4.096 |
| 8 | socialist | 1.475 | -2.860 | matern | -1.600 | -3.269 |
| 9 | tyranni | 1.475 | -3.310 | dispar | -1.581 | -3.054 |
| 10 | communist | 1.464 | -2.894 | underserv | -1.565 | -3.565 |
| 11 | unborn | 1.461 | -1.966 | trauma | -1.514 | -3.822 |
| 12 | sanctiti | 1.454 | -2.970 | indigen | -1.514 | -3.952 |
| 13 | pro-lif | 1.449 | -1.702 | lewi | -1.506 | -3.818 |
| 14 | lawless | 1.399 | -3.970 | pell | -1.485 | -3.642 |
| 15 | swamp | 1.398 | -3.349 | childcar | -1.484 | -2.799 |
| 16 | alien | 1.388 | -2.339 | lgbtq | -1.467 | -2.102 |
| 17 | womb | 1.384 | -3.799 | high-capac | -1.459 | -4.410 |
| 18 | pelosi | 1.359 | -3.158 | preschool | -1.448 | -4.334 |
| 19 | islam | 1.358 | -2.765 | low-incom | -1.440 | -2.569 |
| 20 | evil | 1.350 | -3.107 | pre-k | -1.420 | -3.114 |

*Note:* Top terms with most positive (conservative) discrimination parameters and most negative (liberal) discrimination parameters.

**Table B3.** Top 20 Most Liberal Terms by Year

| **2016** | **2018** | **2020** | **2022** | **2024** |
|---|---|---|---|---|
| community-bas | pre-k | renter | evict | community-bas |
| pell | disproportion | equit | renter | underserv |
| pre-k | apprenticeship | tran | pell | socioeconom |
| childhood | low-incom | lgbtqia | equit | dispar |
| seeker | good-pay | evict | rental | equit |
| hub | pell | bodili | community-bas | caregiv |
| broadband | matern | lgbtq | mortal | insulin |
| public-priv | childcar | dispar | reproduct | literaci |
| lewi | pathway | rental | lgbtqia | tailor |
| nanci | reproduct | cancel | matern | public-priv |
| underserv | woman’ | reproduct | dental | evict |
| reproduct | color | detent | apprenticeship | preschool |
| servicememb | lgbtq | community-bas | tuition-fre | tuition-fre |
| matern | bump | low-incom | indigen | disord |
| absente | inclus | juli | underserv | contracept |
| good-pay | high-qual | racial | corridor | diabet |
| opioid | priorit | incarcer | good-pay | holist |
| contracept | epidem | disproportion | high-capac | collabor |
| scholarship | violenc | racism | nutrit | childcar |
| high-spe | women’ | inequ | low-incom | reproduct |

**Table B4.** Top 20 Most Conservative Terms by Year

| 2016 | 2018 | 2020 | 2022 | 2024 |
|---|---|---|---|---|
| militia | god | god | woke | ronald |
| tyrann | unborn | swamp | tyrann | woke |
| indoctrin | properti | womb | god-given | crt |
| pro | obamacar | unborn | crt | keyston |
| articl | liberti | pro-lif | tyranni | lawless |
| christian | shall | sanctiti | indoctrin | xl |
| unalien | amnesti | christian | god | islam |
| claus | pro-lif | socialist | evil | god-given |
| dr | china | god-given | censorship | socialist |
| womb | liber | tyrann | pelosi | tyrann |
| gold | said | tyranni | alien | evil |
| socialist | infring | alien | sanctiti | radic |
| god | concept | patient-cent | communist | joe |
| deem | bureaucrat | pro | christian | god |
| sovereign | illeg | creator | socialist | unalien |
| founder | bear | shall | nanci | unborn |
| unconstitut | constitut | bless | unborn | alien |
| alien | realli | islam | liber | reagan |
| shall | happi | communist | lawless | christian |
| sovereignti | word | infring | speech | pour |

# C Results: Alternative Specifications

## C.1 Responsiveness

**Table C1.** District Partisanship and Candidate Positions with Interactions

| | Campaign Platform Position | | Recipient CF Score | |
|---|---|---|---|---|
| | Democrats | Republicans | Democrats | Republicans |
| District Dem. Partisanship | -0.009*** | -0.015*** | 0.000 | -0.002 |
| | (0.002) | (0.004) | (0.002) | (0.002) |
| Open Seat Candidate | 0.000 | 0.388*** | -0.163*** | 0.096** |
| | (0.052) | (0.065) | (0.042) | (0.032) |
| Primary Challenger | 0.187* | 0.647*** | -0.265*** | 0.270*** |
| | (0.087) | (0.076) | (0.076) | (0.061) |
| General Challenger | 0.064 | 0.373*** | -0.281*** | 0.161*** |
| | (0.052) | (0.069) | (0.042) | (0.034) |
| District × Open | -0.002 | -0.005 | 0.005* | 0.000 |
| | (0.003) | (0.004) | (0.002) | (0.002) |
| District × Prim. Chall. | -0.002 | 0.014** | 0.009* | 0.008 |
| | (0.004) | (0.005) | (0.004) | (0.005) |
| District × Gen. Chall. | 0.003 | 0.001 | 0.003 | 0.005* |
| | (0.003) | (0.005) | (0.002) | (0.002) |
| Year Fixed Effects | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,837 | 1,994 | 1,837 | 1,994 |
| R-Squared | 0.147 | 0.184 | 0.171 | 0.048 |

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

**Table C2.** Relationship Between District Partisanship and Position of Primary Winner, 2016–2024

| | Campaign Platform Position | | Recipient CF Score | |
|---|---|---|---|---|
| | Democrats | Republicans | Democrats | Republicans |
| District Dem. Partisanship | -0.009*** | -0.016*** | 0.003** | 0.000 |
| | (0.002) | (0.002) | (0.001) | (0.001) |
| Open Seat Candidate | -0.069 | 0.326*** | -0.093* | 0.048 |
| | (0.052) | (0.063) | (0.037) | (0.026) |
| Primary Challenger | 0.006 | 0.669*** | -0.010 | 0.228** |
| | (0.126) | (0.080) | (0.130) | (0.078) |
| General Challenger | -0.002 | 0.329*** | -0.227*** | 0.187*** |
| | (0.054) | (0.077) | (0.039) | (0.031) |
| Year Fixed Effects | ✓ | ✓ | ✓ | ✓ |
| Observations | 933 | 925 | 933 | 925 |
| R-Squared | 0.154 | 0.113 | 0.302 | 0.126 |

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

**Table C3.** Relationship Between District Partisanship and Candidate Positions with Dynamic CF Scores

| | Campaign Platform Position | | Dynamic CF Score | |
|---|---|---|---|---|
| | Democrats | Republicans | Democrats | Republicans |
| District Dem. Partisanship | -0.010*** | -0.016*** | 0.003*** | -0.001 |
| | (0.001) | (0.002) | (0.001) | (0.001) |
| Open Seat Candidate | -0.011 | 0.424*** | -0.104*** | 0.125*** |
| | (0.039) | (0.045) | (0.028) | (0.024) |
| Primary Challenger | 0.146** | 0.515*** | -0.100* | 0.227*** |
| | (0.048) | (0.049) | (0.047) | (0.038) |
| General Challenger | 0.030 | 0.387*** | -0.227*** | 0.212*** |
| | (0.043) | (0.056) | (0.031) | (0.031) |
| Year Fixed Effects | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,834 | 1,984 | 1,834 | 1,984 |
| R-Squared | 0.145 | 0.180 | 0.155 | 0.056 |

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

**Table C4.** Relationship Between District Partisanship and Candidate Positions with DW-DIME Scores

| | Campaign Platform Position | | DW-DIME Score | |
|---|---|---|---|---|
| | Democrats | Republicans | Democrats | Republicans |
| District Dem. Partisanship | -0.009*** | -0.015*** | -0.006*** | -0.006*** |
| | (0.001) | (0.002) | (0.001) | (0.001) |
| Open Seat Candidate | -0.070 | 0.466*** | -0.021 | 0.077* |
| | (0.038) | (0.047) | (0.019) | (0.030) |
| Primary Challenger | 0.032 | 0.512*** | -0.040 | 0.225*** |
| | (0.049) | (0.063) | (0.026) | (0.044) |
| General Challenger | 0.005 | 0.350*** | -0.068** | 0.148*** |
| | (0.044) | (0.065) | (0.022) | (0.043) |
| Year Fixed Effects | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,522 | 1,340 | 1,522 | 1,340 |
| R-Squared | 0.152 | 0.179 | 0.133 | 0.063 |

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

## C.2 Primary Electoral Success

**Table C5.** Relationship Between Candidate Positions and Primary Victory, 2016–2024

| Position Measure | Campaign Platform | | | Recipient CF Score | | |
|---|---|---|---|---|---|---|
| | DV: Won Primary (0/1) | | | | | |
| | Dem | Rep | All | Dem | Rep | All |
| Candidate Position | -0.069* | -0.026 | | 0.261*** | -0.113*** | |
| | (0.033) | (0.022) | | (0.067) | (0.033) | |
| Candidate Position$^2$ | -0.081* | 0.006 | | -0.276*** | -0.143*** | |
| | (0.033) | (0.019) | | (0.074) | (0.023) | |
| \| Candidate Position \| | | | 0.018 | | | -0.079* |
| | | | (0.022) | | | (0.033) |
| District-Party-Census FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Candidate Type FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,711 | 1,903 | 3,614 | 1,711 | 1,903 | 3,614 |
| R-Squared | 0.523 | 0.607 | 0.564 | 0.528 | 0.616 | 0.565 |

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

**Table C6.** Relationship Between Candidate Positions and Primary Electoral Success with Dynamic CF Scores, 2016–2024

| Position Measure: | Campaign Platform | | | Dynamic CF Score | | |
|---|---|---|---|---|---|---|
| | DV: Primary Vote Share | | | | | |
| | Dem | Rep | All | Dem | Rep | All |
| Candidate Position | -0.041*** | 0.006 | | 0.112*** | -0.035** | |
| | (0.011) | (0.008) | | (0.025) | (0.012) | |
| Candidate Position$^2$ | -0.048*** | -0.006 | | -0.096*** | -0.049*** | |
| | (0.013) | (0.007) | | (0.023) | (0.008) | |
| \| Candidate Position \| | | | 0.018* | | | -0.032** |
| | | | (0.008) | | | (0.012) |
| District-Party-Census FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Candidate Type FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,708 | 1,894 | 3,602 | 1,708 | 1,894 | 3,602 |
| R-Squared | 0.825 | 0.865 | 0.841 | 0.825 | 0.868 | 0.841 |

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

**Table C7.** Relationship Between Candidate Positions and Primary Electoral Success with DW-DIME, 2016–2024

| Position Measure: | Campaign Platform | | | DW-DIME Score | | |
|---|---|---|---|---|---|---|
| | DV: Primary Vote Share | | | | | |
| | Dem | Rep | All | Dem | Rep | All |
| Candidate Position | -0.031 | 0.007 | | 0.157* | 0.004 | |
| | (0.016) | (0.011) | | (0.064) | (0.020) | |
| Candidate Position$^2$ | -0.054** | 0.001 | | -0.280 | -0.028 | |
| | (0.019) | (0.009) | | (0.174) | (0.020) | |
| \| Candidate Position \| | | | 0.016 | | | -0.008 |
| | | | (0.011) | | | (0.019) |
| District-Party-Census FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Candidate Type FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,419 | 1,267 | 2,686 | 1,419 | 1,267 | 2,686 |
| R-Squared | 0.849 | 0.889 | 0.862 | 0.848 | 0.889 | 0.862 |

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

## C.3 Primary Fundraising Success

**Table C8.** Relationship Between Candidate Positions and Top Primary Fundraiser, 2016–2024

| Position Measure: | Campaign Platform | | | Recipient CF Score | | |
|---|---|---|---|---|---|---|
| | DV: Raised Most in Direct Primary Contributions (0/1) | | | | | |
| | Dem | Rep | All | Dem | Rep | All |
| Candidate Position | -0.071* | -0.010 | | 0.238** | -0.176*** | |
| | (0.034) | (0.023) | | (0.073) | (0.039) | |
| Candidate Position$^2$ | -0.109*** | 0.009 | | -0.189*** | -0.152*** | |
| | (0.031) | (0.020) | | (0.046) | (0.024) | |
| \| Candidate Position \| | | | 0.018 | | | -0.152*** |
| | | | (0.023) | | | (0.036) |
| District-Party-Census FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Candidate Type FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,676 | 1,898 | 3,574 | 1,676 | 1,898 | 3,574 |
| R-Squared | 0.488 | 0.572 | 0.526 | 0.487 | 0.583 | 0.530 |

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

**Table C9.** Relationship Between Candidate Positions and Primary Fundraising Success with Dynamic CF Scores, 2016–2024

| Position Measure: | Campaign Platform | | | Dynamic CF Score | | |
|---|---|---|---|---|---|---|
| | DV: Share of Total Direct Primary Contributions | | | | | |
| | Dem | Rep | All | Dem | Rep | All |
| Candidate Position | -0.068** | -0.003 | | 0.238*** | -0.045 | |
| | (0.024) | (0.017) | | (0.050) | (0.026) | |
| Candidate Position$^2$ | -0.089*** | 0.004 | | -0.167*** | 0.003 | |
| | (0.023) | (0.015) | | (0.036) | (0.015) | |
| \| Candidate Position \| | | | 0.020 | | | -0.145*** |
| | | | (0.017) | | | (0.026) |
| District-Party-Census FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Candidate Type FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,673 | 1,890 | 3,563 | 1,673 | 1,890 | 3,563 |
| R-Squared | 0.629 | 0.701 | 0.659 | 0.631 | 0.702 | 0.666 |

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

**Table C10.** Relationship Between Candidate Positions and Primary Fundraising Success with DW-DIME, 2016–2024

| Position Measure: | Campaign Platform | | | DW-DIME Score | | |
|---|---|---|---|---|---|---|
| | DV: Share of Total Direct Primary Contributions | | | | | |
| | Dem | Rep | All | Dem | Rep | All |
| Candidate Position | -0.022 | -0.007 | | 0.378** | -0.136** | |
| | (0.032) | (0.023) | | (0.127) | (0.045) | |
| Candidate Position$^2$ | -0.074* | 0.018 | | -0.396 | -0.130* | |
| | (0.032) | (0.022) | | (0.337) | (0.057) | |
| \| Candidate Position \| | | | 0.000 | | | -0.164*** |
| | | | (0.022) | | | (0.040) |
| District-Party-Census FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Year FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Candidate Type FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,402 | 1,294 | 2,696 | 1,402 | 1,294 | 2,696 |
| R-Squared | 0.678 | 0.757 | 0.709 | 0.683 | 0.763 | 0.714 |

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

# D Probing Differences Between Measures

**Figure D1.** Density of Ranking Differences Between CF Score and Platform by Party and Incumbency Status

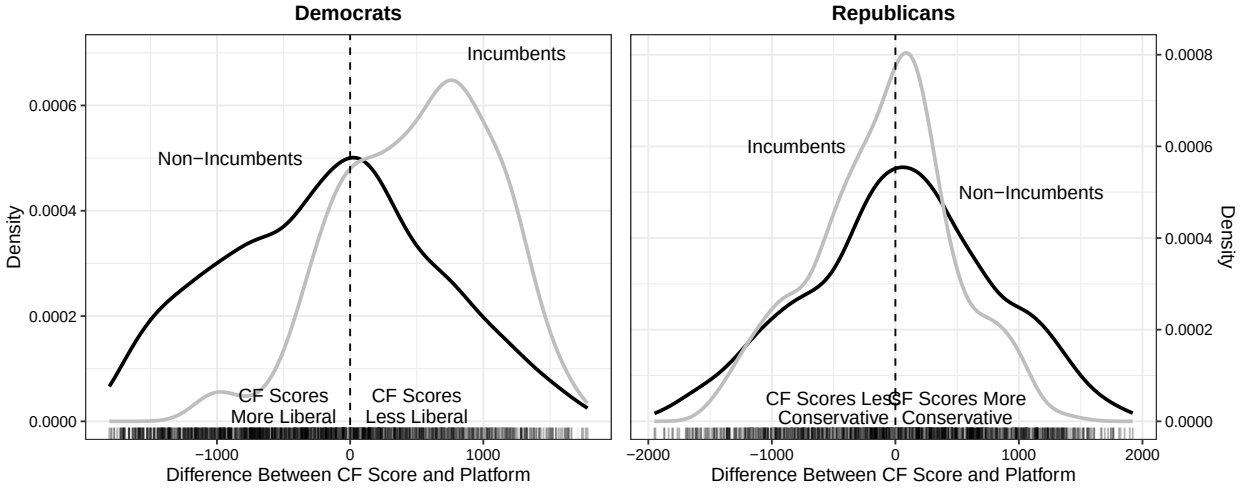



**Figure D2.** Relationship Between Non-Incumbents' District Democratic Vote Share and Ranking Difference Between CF Score and Platform