Primary Systems and Candidate Ideology: Evidence From Federal and State Legislative Elections

Jon C. Rogowski and Stephanie Langella

Abstract
The nomination of ideologically extreme candidates in party primaries has led many scholars and observers to speculate about the role played by different kinds of primary systems. Models of candidate competition that account for the two-stage nature of the electoral process suggest that more restrictive primary systems produce more ideologically extreme candidates. In contrast with previous research that examines the relationship between primaries and legislative ideology, we focus on how primary systems affect the ideological extremity of candidates’ campaign platforms. Using data on more than 85,000 major party candidates for Congress and state legislatures from 1980-2012, we find no evidence that the restrictiveness of primary participation rules is systematically associated with candidate ideology.

Keywords
primary elections, candidate competition, spatial models, congressional elections

Scholars, pundits, journalists, policy analysts, and politicians themselves have lamented the increases in partisan polarization in U.S. Congress

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(McCarty, Poole, & Rosenthal, 2006) and state legislatures (Shor & McCarty, 2011) over the last several decades. Reformers have advocated a variety of measures designed to mitigate ideological extremism in American politics, and reducing the restrictions on voter participation in party primaries has been among their biggest targets. Recently, Senator Charles E. Schumer (D-NY) succinctly summarized the arguments put forth by proponents of primary reforms: “The partisan primary system, which favors more ideologically pure candidates, has contributed to the election of more extreme officeholders and increased political polarization” (Schumer, 2014).

This basic claim is quite consistent with the intuition from spatial models of elections. While classic unidimensional models of candidate competition predict that competing candidates in a two-candidate election will adopt campaign platforms that converge at the preferences of the median voter (Calvert, 1985; Downs, 1957), models that depict the two-stage nature of most American elections that begin with a primary predict that candidates will often diverge (Coleman, 1971; Owen & Grofman, 2006). Because candidates must first appeal to the median primary voter before moving on to the general election, the parties’ nominees will adopt divergent platforms (e.g., Aldrich, 1983) to the degree that median primary voters have divergent preferences across the two parties.1 Based on this logic, the rules governing primary participation are likely to affect the platforms chosen by candidates. Primary systems with restrictive participation rules—for instance, those states in which only registered party members are allowed to participate in that party’s primary—are likely to generate candidates who choose more ideologically extreme platforms compared with systems in which primary participation is open to all voters.

In this article, we build on recent work that studies the effect of primaries on legislative behavior (e.g., Bullock & Clinton, 2011; Gerber & Morton, 1998; Hirano, Ansolabehere, & Hansen, 2010; Kanthak & Morton, 2001; McGhee, Masket, Shor, Rogers, & McCarty, 2014) to make three contributions to the study of primary rules. First, we focus on how primary systems affect the campaign platforms that candidates offer to voters. The logic outlined above predicts that candidates in states with more open primary systems adopt more moderate platforms. Second, whereas prior research has examined the effect of primaries on roll call voting behavior only among those candidates elected to office, we examine how primaries affect platforms among both winning and losing candidates. And third, rather than study the effect of primaries in a single state or legislative institution, we compare the effects of primary systems in 49 states across legislatures at both the federal and state levels.

We use estimates of ideology generated from campaign finance records for more than 85,000 major party candidates for the U.S. House and state
legislatures from 1980 to 2012 (Bonica, 2014) to directly assess how primary type affects candidate ideology. Our results are mixed. First, contrary to expectations, we find no systematic evidence that open primaries generate more ideologically moderate candidates than closed primaries. More generally, we also find no consistent evidence that semi-closed, semi-open, or non-partisan primaries reduce the level of ideological extremity relative to closed primaries. Instead, the effects vary across party, office, and subsets of candidates. Thus, while primary systems may indeed have significant implications for defining the incentives for candidates, parties, and voters, less restrictive primary participation rules do not appear to alter the incentives for ideological moderation in the way posited by spatial models of electoral competition.

**Primary Systems and Candidate Platforms**

The canonical unidimensional spatial model of elections posits that electoral competition induces candidates to select platforms that closely correspond to the preferences of the median voter (Downs, 1957). However, virtually no empirical findings support this prediction (e.g., Ansolabehere, Snyder, & Stewart, 2001a; Burden, 2004; Stone & Simas, 2010; Sullivan & Minns, 1976; Wright & Berkman, 1986). Several subsequent theories of candidate competition attribute these findings to the two-stage nature of American elections (Coleman, 1971; Owen & Grofman, 2006). Before competing in the general election, candidates must first secure their party’s nomination, facing incentives to hew to the preferences of their primary constituencies (Brady, Han, & Pope, 2007).

However, primary systems vary across the U.S. states. Some states conduct primaries in a purely open fashion, in which there are no restrictions on voters’ abilities to select party nominees. At the opposite end of the spectrum, other states restrict participation in nominating primaries to voters who are registered members of the party. Still other states have primary systems that fall somewhere in between these extremes. These differences in primary rules are believed to have important consequences for the platforms chosen by candidates (Brady & Schwartz, 1995; Burden, 2004; Francis, Kenny, Morton, & Schmidt, 1994; Gerber & Morton, 1998; Schmidt, Kenny, & Morton, 1996). In particular, the restrictiveness of primary participation rules is likely to affect the ideological composition of the primary electorate (e.g., Besley & Case, 2003). Thus, as primary rules are more restrictive, the voters participating in that primary election are likely to be more ideologically extreme relative to the electorate as a whole. Kaufmann, Gimpel, and Hoffman (2003) provide empirical support for this claim. Studying the period 1988-2000, the
authors find that primary voters are more ideologically moderate and more representative of the electorate as a whole in states with more open primary rules.

Differences in the ideological composition of the primary electorate that correspond with primary participation rules, then, provide different incentives for the platforms candidates ultimately choose. Models such as those found in Aldrich (1983) provide an intuition for characterizing this relationship that derives from Downs’s spatial formulation. To the extent that primary electorates differ from the electorates in the general election, then, candidates have incentives to select platforms that diverge from the median voter’s preferences in the general electorate. As a consequence, more restrictive primary rules may result in more ideologically extreme candidates.

The veracity of this prediction is widely accepted, as literature on candidate divergence and party polarization illustrates. In a literature review, Grofman (2004) writes, “The extent of between-party divergence is also affected by the exact nature of the party nominating process” (p. 20). According to McCarty (2011), “It seems almost a logical certainty that opening primary elections to more nonpartisan and independent voters should have a moderating effect on politics by increasing the chance that moderate candidates get nominated” (p. 363). In considering the relationship between primary type and legislative behavior, a large and diverse range of scholarship, including Ansolabehere et al. (2001a); Burden (2004); Fiorina (1999); Galderisi, Ezra, and Lyons (2001); and Hacker and Pierson (2005), argues that closed primary systems produce more ideologically extreme legislators.

Some scholarship, however, argues that the relationship between primary rules and ideology is somewhat more complicated than the depiction above suggests. These nuances stem largely from variation in the rules for semi-open and semi-closed primaries, and from key behavioral assumptions about citizen participation. For instance, rather than generating more moderate candidates, open primaries may produce more extreme candidates than closed primaries due to “raiding” by the opposition party (Oak, 2006; see also Cho & Kang, 2015). Kanthak and Morton (2001) further argue that raiding should be prevalent in open primaries, but not in semi-open primaries. In addition, nonpartisan primaries, such as those conducted via blanket or top-two format in which the two candidates who receive the most votes regardless of party advance to the general election, may be analogous to multi-candidate elections, in which convergence (or moderation) is not an equilibrium strategy. Thus, as McGhee et al. (2014) point out, while the theoretical predictions about candidate extremity are relatively straightforward for comparing ideology across some primary types, the expectations are more ambiguous for other comparisons.
The evidence for the prediction that restrictive primary rules generate more ideologically extreme legislators, however, is decidedly mixed. In perhaps the landmark study in this area, Gerber and Morton (1998) use Americans for Democratic Action (ADA) scores to show that members of Congress from open primary systems exhibit roll call behavior that is more moderate than legislators from closed primary systems. However, the results are inconsistent across parties; for instance, contrary to expectations, they find that Republicans from open and blanket primary states had more conservative voting records than Republicans from closed primary states. Kanthak and Morton (2001) report other inconsistencies. While they find that semi-closed and semi-open primaries do generate more moderate candidates compared with closed primaries, candidates from open primaries are in fact more extreme than candidates in closed primaries. King (2003) also finds this latter result. Investigating the institution of the blanket primary in state legislative elections in California in the 1990s, Bullock and Clinton (2011) find that the political context of the legislative district conditioned whether the blanket primary had its predicted moderating effect. And other research concludes that there is in fact no association between primary type and ideological extremity. Hirano et al. (2010) investigate the institution of the direct primary in the earlier part of the 20th century and find no evidence that legislators elected through the direct primary—the first time that two-stage elections were widely used—accumulated roll call voting records that were ideologically distinct from legislators who were not elected through the primary system. In the most recent and comprehensive work on this topic, McGhee et al. (2014) find no association between primary rules and the ideological extremity of partisans in state legislatures.

Despite previous research on the effects of primary rules, however, it remains unclear how primaries affect the platforms chosen by candidates for the purposes of winning election. The studies cited above all use some measure of legislative behavior (DW-NOMINATE, ADA scores, and their kin) to characterize the relationship between primary systems and ideological extremity. While examining how primaries affect the ideological behavior of elected officials is an important topic of interest, focusing on how primary rules influence candidate platform selection is also of theoretical and practical importance. The theoretical models of candidate competition that generate predictions about how primary rules affect candidates’ platform choices focus explicitly on the platform as the dependent variable of interest; using estimates of legislative behavior to evaluate the effects of primary rules precludes any assessment of the ideological profiles of unsuccessful candidates in legislative elections. Moreover, other research shows how the kinds of electoral choices that are offered to citizens affects voter turnout (e.g., Plane
& Gershtenson, 2004; Rogowski, 2014) and their willingness to donate to campaigns (Ensley, 2009). The degree of ideological divergence between candidates can also affect the weight that citizens place on issues when deciding which candidate to support (e.g., Hetherington, 2001; Wright & Berkman, 1986). Clearly identifying how primary participation rules affect these processes, then, will help clarify the linkages between electoral institutions, candidate strategies, and voter behavior.

Data

We use the dynamic Campaign Finance scores (CFscores) from the Database on Ideology, Money in Politics, and Elections (DIME) reported in Bonica (2014) to characterize the electoral platforms chosen by major party candidates in U.S. House and state legislative elections. Impressively, DIME provides estimates of ideology for virtually every candidate for federal office from 1979 to 2012 and virtually all candidates for state office from 1990 to 2012. Roughly analogous to the ways roll call data are used to generate estimates of legislator ideology, DIME uses data from campaign contributions from 3.9 million individuals and 262,000 Political Action Committees (PACs) and other organizations to jointly estimate the ideologies of candidates and donors. The dynamic CFscores provide estimates of candidate ideology for each election cycle. As is standard in other literature on this topic (e.g., Ansolabehere et al., 2001a; Ansolabehere, Snyder, & Stewart, 2001b; Rogowski, 2014; Stone & Simas, 2010), the CFscores assume that a single ideological dimension characterizes legislators’ campaign platforms.

The key assumption underlying the CFscores is that donors contribute to candidates on the basis of ideological proximity. In other words, contributors—both individuals and organizations—are more likely to donate to candidates who share their ideology than to candidates who are less ideologically proximate. This assumption reflects Ansolabehere, de Figueiredo, and Snyder’s (2003) argument that campaign donations represent the desire to be politically active rather than a material investment in a candidate, and research on the predictors of individual contributions often finds that ideology plays an important role—perhaps the most important role—in influencing donor behavior (Ensley, 2009; Francia, Green, Herrnson, Powell, & Wilcox, 2003; McCarty et al., 2006). Given this characterization, candidates who receive contributions from more liberal donors will have estimates on the liberal side of the policy space, and candidates who receive contributions from more conservative donors will have estimates on the conservative side of the policy space.

To be sure, ideology is not the only factor that motivates donor behavior. For instance, studying individuals, Francia et al. (2003) find that about a
quarter of donors contribute to candidates for material reasons, and another
quarter of donors contribute for social reasons (see also Sinclair, 2013).
Similarly, Gordon, Hafer, and Landa (2007) provide evidence that corporate
executives are more likely to contribute to candidates as their firm’s sensitiv-
ity to government policy increases, suggesting the possibility of strategic giv-
ing. Research on the determinants of PAC contributions, moreover, often
emphasizes the strategic incentives for donations (Denzau & Munger, 1986;
Snyder, 1990). The possibility that individuals or organizations contribute to
candidates on the basis of strategic considerations does not present a major
problem for the assumption that donations are influenced by ideology so long
as strategic giving is uncorrelated with ideology. In an extensive series of
robustness checks on donation behavior to U.S. House candidates, Bonica
(2014) shows that non-ideological factors account for a substantively small
component of donor behavior and that these non-ideological factors are gen-
erally orthogonal to ideology. Finally, although ideology may in fact be an
important component of contribution decisions, it is possible that other
changes over this time period may have altered the mapping between ideol-
ogy and campaign donations. As we report below, we explored this possibil-
ity in the context of changes to federal election laws and to differences across
states in public financing for legislative elections.

As Bonica (2014) reports, the CFscores are strongly correlated with other,
related measures of ideology. Among successful candidates for the U.S.
House, the correlation between CFscores and DW-NOMINATE scores is
0.50 for Democrats and 0.52 for Republicans. Bonica (2014) also reports that
CFscores compare favorably with estimates of candidate ideology obtained
from surveys conducted by Project Vote Smart and reported in Ansolabehere
et al. (2001a); the correlations for U.S. House candidates in 1996 are 0.52 for
Democrats and 0.51 for Republicans. As a consequence, CFscores perform
nearly as well as DW-NOMINATE scores in correctly predicting voting
behavior in the U.S. Congress; CFscores correctly predict 88.0% of roll call
votes, while DW-NOMINATE scores correctly predict 89.6% of roll call
votes. Furthermore, CFscores for state legislative candidates correlate well
with measures of state legislators’ ideology derived from Vote Smart surveys
and roll call voting behavior (Shor & McCarty 2011). The within-party cor-
relations between the two sets of scores for chamber medians from 2000 to
2010 were all 0.53 or higher for states’ upper and lower chambers. Thus, as
these comparisons attest, CFscores appear to be a valid indicator of legisla-
tive candidate ideology.

Using the CFscores confers several key advantages. First, the scores are
available over a long period of time (from 1979 to 2012) over which many
states changed their primary systems at least once. Second, in contrast
to roll-call-based estimates, CFscores are available for winning and losing candidates. This allows us to examine how primary rules affect the behavior of unsuccessful candidates who do not go on to compile roll call voting records. And third, because the vast majority (between 70% and 90%) of contributors to state legislative candidates also contributed to candidates for the U.S. House, and because donors often contributed in multiple election cycles, the estimates of candidate ideology are jointly scaled across states, legislatures, and years.

However, just as the precision of legislators’ roll call estimates generally increases with the number of roll call votes that are cast, the precision of candidates’ CFscores depends in part on the total number of contributors. Candidates’ ideologies are likely to be more precisely estimated when candidates receive contributions from a larger number of donors. And, indeed, measurement error has important implications for the empirical analysis that follows. In particular, if measurement error takes the form of random noise, the standard errors associated with the coefficients for primary type will be inflated, thus making it more difficult to reach strong inferences about the association between primary type and ideology.

Thus, we included all candidates who received contributions from at least 10 unique donors. We note, however, that our results are generally consistent when we use other minimum numbers of contributors, such as 25 and 100. We also estimated regressions that weighted observations by the number of donors, and these results lend further support for the findings reported in the text. With these constraints in place, we include 14,801 candidates for the U.S. House, 54,455 candidates for state legislatures’ lower chambers, and 16,454 candidates for state legislatures’ upper chambers. Table 1 below shows the sample sizes by year and legislative institution.

We do not assume that candidates’ electoral platforms reflect these candidates’ sincere ideologies, but only that they are reflective of the ideologies the candidates advocate for the purposes of winning elections. While these ideological positions do not commit the candidates to any particular position on a potential roll call vote that may arise in the future, they are not simply cheap talk. For instance, Sulkin (2009, 2011) shows that, once in office, legislators do in fact address the issues they raise during their campaigns, while Harrington (1993) and Callander and Wilkie (2007) demonstrate that reputational concerns can lead candidates to be truthful about their future intentions as legislators, and Buttice and Stone (2012) and Simas (2013) show that voters respond to the ideological positions of congressional candidates’ platforms. Moreover, while it is possible that the ideologies of campaign contributors do not provide a perfect representation of the candidates’ ideologies, the sources of a candidates’ campaign contributions can provide a
meaningful signal to voters about how a candidate is likely to behave if elected to office (see Ashworth, 2006).13

States’ primary systems were classified as one of five types: open, semi-open, semi-closed, closed, and nonpartisan. Though the details vary slightly from state to state, scholars generally agree about the main characteristics of each primary type (see McGhee et al., 2014, Table 1, for a detailed listing of the characteristics of various primary types). Closed primaries limit participation to only registered members of that party. Semi-closed primaries allow nonpartisans and independents to participate in addition to registered party members. Semi-open primaries allow all voters to participate, but the voter must publicly choose which party’s ballot to cast. Open primary systems allow all voters to participate, regardless of party affiliation, and the voter privately decides whether to cast votes in the Democratic or Republican primary. In contrast to these primary systems, nonpartisan primaries allow voters to vote for any candidate of their choice, regardless of party affiliation, for

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S. House</th>
<th>State Lower chambers</th>
<th>State Upper chambers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>642</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>726</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>674</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>682</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>675</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>706</td>
<td>516</td>
<td>211</td>
</tr>
<tr>
<td>1992</td>
<td>1,012</td>
<td>618</td>
<td>333</td>
</tr>
<tr>
<td>1994</td>
<td>954</td>
<td>833</td>
<td>342</td>
</tr>
<tr>
<td>1996</td>
<td>973</td>
<td>2,803</td>
<td>1,111</td>
</tr>
<tr>
<td>1998</td>
<td>784</td>
<td>5,491</td>
<td>1,486</td>
</tr>
<tr>
<td>2000</td>
<td>831</td>
<td>5,777</td>
<td>1,739</td>
</tr>
<tr>
<td>2002</td>
<td>843</td>
<td>6,253</td>
<td>1,909</td>
</tr>
<tr>
<td>2004</td>
<td>851</td>
<td>6,326</td>
<td>1,855</td>
</tr>
<tr>
<td>2006</td>
<td>936</td>
<td>6,624</td>
<td>1,753</td>
</tr>
<tr>
<td>2008</td>
<td>1,014</td>
<td>6,295</td>
<td>1,839</td>
</tr>
<tr>
<td>2010</td>
<td>1,288</td>
<td>6,710</td>
<td>1,849</td>
</tr>
<tr>
<td>2012</td>
<td>1,186</td>
<td>6,043</td>
<td>1,990</td>
</tr>
</tbody>
</table>

Note. Entries represent the number of candidates from the Database on Ideology, Money, and Elections (Bonica, 2014), by year and chamber. Only the candidates who received at least 10 campaign contributions are included.
each electoral contest. That is, rather than choose whether to participate in the Republican or Democratic primary, voters in nonpartisan primaries may vote, for example, for a Republican candidate for the U.S. House and a Democratic candidate for governor.

Table 2 below shows the primary systems in place in each state from 1980 to 2012. To code primary systems from 1980 to 1990, we used the classifications of primary systems found in Kathak and Morton (2001), who studied the effect of primary rules from 1982 to 1990.14 For the period 1992 to 2012, we classified each state’s primary system according to the codings found in McGhee et al. (2014), who study primary elections between 1992 and 2010. We updated the primary classifications for 2012 to reflect the states (notably, California and Louisiana) that made changes to their primary systems between 2010 and 2012. In some instances, states used different primary systems for federal and state offices. For instance, Nebraska uses a closed primary system for federal offices, but a nonpartisan system for state legislative elections (as state legislative candidates do not run on a party label), while Louisiana used a closed primary system for federal offices in 2008 and 2010, but a nonpartisan primary for state offices. We account for all such differences in our statistical models.

Table 2. Primary Systems Across the States.

<table>
<thead>
<tr>
<th>Primary type</th>
<th>States</th>
<th>Prediction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-open</td>
<td>AR, GA, IA, IL, IN, MO, MS, OH, SC, TN, TX, UT (1996-2012), VA, WY</td>
<td>Ambiguous</td>
</tr>
</tbody>
</table>

aLouisiana used nonpartisan primaries throughout this time period for state offices, but switched briefly to the closed primary for congressional elections in 2008 and 2010.
bNebraska uses a closed primary for federal elections, but elections for state offices begin with nonpartisan primaries.
The final column of Table 2 lists the predicted relationship between candidate ideology and primary type based on the discussion above. The predictions are clearest for closed, semi-closed, and nonpartisan primaries. Closed primaries are expected to produce relatively ideologically extreme candidates, while semi-closed and nonpartisan primaries should generate relatively moderate candidates. As the discussion highlighted, the expectations are more ambiguous for semi-open and open primaries. Both systems may produce more moderate candidates by virtue of being open to a wider, less partisan set of voters, but they may also generate more extreme candidates if members of the opposite party engage in high levels of raiding.15

Results

We begin by exploring the descriptive differences in candidates’ platforms across primary types. For each year included in the study, Figure 1 below displays the mean platform estimates across open, semi-open, semi-closed, and closed primary systems.16 The plot on the left shows estimates for candidates for the U.S. House, and the plot on the right displays estimates for state legislative candidates. Several features of these plots stand out. First, for each election year and across all primary types, on average, there are substantial ideological differences between candidates from opposite parties. Second, mirroring trends in ideological polarization in the U.S. Congress (McCarty et al., 2006), these differences generally have increased over time. Interestingly, however, while much of the increase in congressional polarization has resulted from increasingly conservative roll call voting behavior among Republicans, the increase in polarization in campaign platforms appears to be driven largely by increasingly liberal platforms among Democratic candidates.

Most importantly, Figure 1 does not provide any clear evidence about the relationship between primary types and candidate extremity. Candidates for the U.S. House and state legislatures from closed primary systems (shown with the solid lines) had relatively moderate platforms compared with candidates from more open primary systems. In contrast, candidates from open primary systems (shown with the alternating dotted-dashed lines) had among the most ideologically extreme platforms. At the same time, Democratic candidates from semi-open primaries (shown with the dotted lines) had more moderate platforms over the entire time series than Democrats from other primary systems, while Republican candidates from semi-closed primaries also had more moderate platforms than Republicans from semi-open and open primaries over virtually the entire time period. Thus, on the whole, the
Figure 1. Mean candidate platforms by primary type.
Note. The plots show the mean platform estimates for Republican and Democratic legislative candidates by primary type.
raw data paint a mixed picture of the relationship between primary openness and candidate ideology. Moreover, these patterns, while interesting, do not grant strong support for standard predictions about the relationship between the restrictiveness of primary rules and candidate extremity. More importantly, however, these figures do not take account of state-level differences that may also be associated with candidate platforms.

As mentioned above, many states changed their primary systems over the time period under investigation. Following McGhee et al. (2014), we use a differences-in-differences (DID) approach to examine how these changes in primary systems affected the ideologies of candidates who ran for election. Specifically, for U.S. House and state legislative candidates, we estimate the following model:

$$y_{ijt} = \beta_0 + P_{jt} \Omega + S_j + D_t + \epsilon_{ijt},$$

where the subscripts $i$, $j$, and $t$ index candidates, states, and election years, respectively; $y$ is the candidate platform estimate; $P$ is a vector of indicators for state primary type, where closed systems are the omitted category; $S$ is a vector of state fixed-effects that captures any baseline differences between states in the platforms candidates select; $D$ is a vector of year fixed-effects that captures any baseline differences in platform choices across years; and $\beta_0$ and $\epsilon$ are constant and error terms, respectively. Because the primary rules are fixed at the state level, we cluster standard errors on states. The coefficients for the effects of primary types, then, are identified using within-state changes in primary systems. The DID estimator provides unbiased estimates of the effect of primary type net of all time-invariant state-level factors. For ease of interpretation, we estimate Equation 1 separately for Democrats and Republicans. Thus, for each of the indicators for primary type, positive [negative] coefficients for Democrats [Republicans] indicate more moderate platforms relative to closed primaries.

We conduct analyses for three groups of candidates. First, we include all candidates who competed in the primary election. However, theoretical predictions about candidate positioning and electoral competition are most applicable to rational office-seeking candidates, and not all candidates who enter a primary contest may intend to win. Thus, we estimate a second set of analyses that focuses on only those candidates who competed in the general election (and thus secured their party’s nomination). Finally, we estimate a third set of analyses that includes only those candidates who won the general election. We discuss these results in turn.
Table 3 below shows results when analyzing the effects of primary rules on all candidates in primary elections. The first two columns show results for Democratic and Republican candidates, respectively, in U.S. House elections, and the right two columns show results for state legislative candidates.

The results shown in Table 3 reveal inconsistent results across party, level of election, or both. Compared with closed primaries, semi-closed primaries appear to produce significantly more moderate Republican candidates for the U.S. House and more moderate Democratic candidates for state legislature. Although the coefficients for Democratic U.S. House candidates and Republican state legislative candidates both suggest that semi-closed primaries are associated with moderation relative to closed primaries, neither coefficient is statistically distinguishable from zero.

The evidence for semi-open primaries is similarly mixed. Semi-open primaries generated increased moderation among U.S. House candidates of both parties, particularly among Republican candidates. In state legislatures, however, semi-open primaries produced more extreme Republican candidates, while the coefficient for Democrats is not statistically significant.

Based on the results in Table 3, open primaries do not appear to have the moderating effects that are often ascribed to them. There is no evidence that open primaries are associated with the ideology of Democratic candidates, while Republican candidates in open primaries were significantly more ideologically extreme than Republicans in closed primaries. This pattern is even stronger among state legislative candidates; Republicans were more
conservative, and Democrats more liberal, in open primaries than they were in closed primaries. Thus, the data indicate that open primaries not only do not induce moderation, but instead appear to be associated with greater ideological extremism.

Finally, nonpartisan primaries also had mixed results across parties and offices. Nonpartisan primaries produced more moderate candidates from both parties for the U.S. House. However, the coefficients for state legislative candidates are indistinguishable from zero and are signed in the opposite directions from the coefficients estimated for U.S. House candidates.

We focus now on analyzing the effects of primary systems among candidates who received their party’s nomination and competed in the general election. In general, this pool of candidates is likely to be more sophisticated and motivated by winning office compared with the population of contenders in the primary election. The results are shown in Table 4 below.

For the most part, the results in Table 4 mirror those shown above in Table 3. Semi-closed primaries have no significant effect relative to closed primaries among candidates for the U.S. House, but are associated with increased ideological extremity among general election candidates of both parties for state legislature. Semi-open primaries, as above, induced significantly higher levels of moderation among candidates for the U.S. House. However, among state legislative candidates, semi-open primaries generated increased extremism among Republicans, but the results provide no evidence that they systematically affected the ideology of Democratic candidates.

The results for open and nonpartisan primaries also generally parallel those from Table 3. Open primaries are associated with greater moderation

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**Table 4. Primary Types and Candidate Platforms: All General Election Candidates.**

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>U.S. House</th>
<th></th>
<th>State legislatures</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dem.</td>
<td></td>
</tr>
<tr>
<td>Semi-closed</td>
<td>0.05 (0.03)</td>
<td>−0.04 (0.03)</td>
<td>−0.10* (0.02)</td>
<td>0.08* (0.03)</td>
</tr>
<tr>
<td>Semi-open</td>
<td>0.16* (0.03)</td>
<td>−0.05* (0.01)</td>
<td>0.07 (0.05)</td>
<td>0.24* (0.02)</td>
</tr>
<tr>
<td>Open</td>
<td>0.08 (0.04)</td>
<td>0.10* (0.02)</td>
<td>−0.08* (0.02)</td>
<td>0.11* (0.05)</td>
</tr>
<tr>
<td>Nonpartisan</td>
<td>0.09* (0.03)</td>
<td>−0.03 (0.01)</td>
<td>−0.04* (0.02)</td>
<td>0.04 (0.04)</td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.08 (0.03)</td>
<td>0.90 (0.02)</td>
<td>0.57 (0.05)</td>
<td>0.63 (0.02)</td>
</tr>
<tr>
<td>N</td>
<td>5,896</td>
<td>5,363</td>
<td>32,474</td>
<td>30,039</td>
</tr>
<tr>
<td>MSE</td>
<td>0.33</td>
<td>0.30</td>
<td>0.34</td>
<td>0.28</td>
</tr>
</tbody>
</table>

*Note. Entries are linear regression coefficient estimates and standard errors, clustered by state. All models include state and year fixed-effects. The dependent variable is the candidates’ estimated platform location.*

*p < .05.
Table 5. Primary Types and Candidate Platforms: All Successful Candidates.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>U.S. House</th>
<th>State legislatures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi-closed</td>
<td>0.01 (0.03)</td>
<td>-0.08* (0.04)</td>
</tr>
<tr>
<td>Semi-open</td>
<td>0.17* (0.02)</td>
<td>-0.10* (0.02)</td>
</tr>
<tr>
<td>Open</td>
<td>0.00 (0.05)</td>
<td>0.01 (0.03)</td>
</tr>
<tr>
<td>Nonpartisan (Constant)</td>
<td>0.11 (0.02)</td>
<td>0.90 (0.02)</td>
</tr>
<tr>
<td>N</td>
<td>3,887</td>
<td>3,392</td>
</tr>
<tr>
<td>MSE</td>
<td>0.26</td>
<td>0.21</td>
</tr>
</tbody>
</table>

Note. Entries are linear regression coefficient estimates and standard errors, clustered by state. All models include state and year fixed-effects. The dependent variable is the candidates’ estimated platform location. *, p < .05.

among Democratic candidates for the U.S. House (although the coefficient falls just short of standard levels of statistical significance), but with significantly increased extremity among Republican House candidates. The partisan pattern is reversed among state legislative candidates, where open primaries generated significantly greater extremity among both Democrats and Republicans. Finally, the results provide modest evidence that nonpartisan primaries reduced ideological extremity among candidates for the U.S. House (the coefficient for Republicans is significant at \( p < .06 \)), but increased extremity among Democratic state legislative candidates and had no effect on Republican state legislative candidates’ ideologies.

Taken as a whole, the evidence from Table 4 reinforces the conclusions from Table 3. There is little evidence to support the claim that less restrictive primary participation rules generate less ideologically extreme candidates. To the contrary, some increasingly open primary formats may generate even higher levels of ideological extremity.

As a final check, we examine these patterns among only those candidates who won the election and went on to serve in the U.S. House or state legislatures. This set of results is critical, as previous research on the effect of primary rules has tended to focus on the legislative behavior of winning candidates.\(^{19}\) The results are shown in Table 5 below.

While we find no evidence that semi-closed primaries reduced extremity among Democratic candidates for the U.S. House, semi-closed primaries generated more moderate Republican House candidates. At the same time, however, semi-closed primaries were associated with significantly increased
extremism among both Democratic and Republican state legislative candidates. Democratic state legislative candidates in semi-closed primaries had more liberal platforms than Democratic candidates in closed primaries, and Republican state legislative candidates in semi-closed primaries had more conservative platforms than Republicans in closed primaries.

Semi-open primaries, meanwhile, significantly increased moderation among winning Democratic candidates for Congress and state legislatures. Semi-open primaries also generated significantly more moderate Republican House candidates. However, Republican state legislative candidates were significantly more ideologically extreme in semi-open primaries.

Open primaries appear to have had no effect on U.S. House candidate ideology. The coefficients for both Republican and Democratic candidates are very small and statistically indistinguishable from zero. Among state legislative candidates, however, open primaries increased ideological extremism. Democratic candidates were significantly more liberal, and Republicans were significantly more conservative, when open primaries were adopted.

Finally, the effect of nonpartisan primaries varied across parties and offices. Nonpartisan primaries significantly reduced ideological extremism among Republican congressional candidates, but had no effect on the ideologies of Democratic candidates for the U.S. House. Although nonpartisan primaries also had no effect on Democratic state legislative candidates, they significantly increased ideological extremism among Republican state legislative candidates.

As noted above, the CFscores were generated under the assumption that donors contribute to candidates on the basis of ideological proximity. Because campaign finance laws may affect donation decisions and campaign activity (e.g., Francia & Herrnson, 2003; Hogan, 2005), we explored the possibility that changes to federal and state campaign finance law altered the mapping between ideology and campaign contributions, and thus explains the patterns of results displayed above. Specifically, we re-estimated our models for U.S. House candidates for the years prior to 2002 (in which the Bipartisan Campaign Finance Reform Act was enacted), and also estimated models that excluded 2010 and 2012 (following the Supreme Court’s Citizens United decision). We also re-estimated our models for state legislative candidates but excluded candidates from Arizona and Maine, which implemented public financing for state legislative candidates in 2000.20 Focusing on these subsets of years and states generates similar patterns of results to those shown above, indicating that our findings are robust to changes in campaign finance law.

Although we place the greatest confidence in the results from the DID models estimated above, we estimated a series of alternative statistical models to examine the robustness of these results. First, we estimated a series of
regression models in which we excluded the state fixed-effects. These complete-pooling models predict candidate ideology solely on the basis of differences in primary type, thus eliminating state-level factors as a potential explanation for differences in candidate ideology. Second, we also estimated a series of multi-level models, in which we estimated varying intercepts for states and years. This “partial pooling” approach represents an intermediate step between estimating separate intercepts for each state (as in the DID models) and accounting for no state-specific factors (as in the complete-pooling models). The results from both of these robustness checks grant strong support for the results shown above. Neither of these alternative statistical models provides consistent or statistically significant evidence that more open primaries generate more moderate candidates. To the contrary, the results from these models suggest that, to the extent that primary systems are associated with candidate platforms, more open primaries produce more ideologically extreme candidates.

Across tens of thousands of candidates, federal and state legislative institutions, decades of election years, and various subsets of candidates, the results provide no consistent evidence in support of canonical explanations about how primary rules affect candidates’ platform decisions. The data do indicate that, in many cases, primary rules have a significant effect on the ideological character of the platforms chosen by candidates for state legislature and the U.S. House. However, to the extent that the coefficients in the models shown above are statistically significant, they are substantively quite trivial. The standard deviation of Republican candidates’ platforms is 0.39, and 0.53 for Democrats. Even the largest coefficients from the tables displayed above suggest that primary rules have at most an effect equal to just a fraction of a standard deviation. Of greater importance, however, is the absence of any consistent patterns regarding the restrictiveness of primary rules and candidate moderation. There is simply no evidence that primary rules are systematically associated with increased or decreased ideological extremity.

**Discussion and Conclusion**

Most elected officials in the United States have won not one election but two: first, a party primary, and then a general election. Well-specified and intuitively appealing theoretical models predict that more restrictive primary participation rules should generate more ideologically extreme candidates due to the necessity of first securing the approval of the primary constituency, although alternative models that allow for strategic behavior by voters generate more ambiguous predictions about the relationship between primary rules and candidate ideology.
Using data on the ideologies of tens of thousands of candidates over a 30-year period, we find little evidence of any systematic relationship between primary systems and candidate ideology. Contrary to claims made by proponents of primary reform, the candidates running for office in closed primary systems do not appear to be substantially more ideologically extreme than candidates running for office in open primary systems. In some cases, the evidence suggests that candidates adopted more ideologically \textit{extreme} platforms in states with more open primaries.

Three conclusions emerge from these findings. First, primary reform is no panacea for ameliorating what some observers see as the ills of partisan politics. As McGhee et al. (2014) conclude, “We should expect little from open primary reform in the modern political age” (p. 349). This conclusion runs counter to the arguments presented by reformers in states such as Colorado, who argue that in closed primary systems, “the final candidates are picked by partisan purists . . . [and] discourages many high quality candidates from running for office in the first place” (Thiry, 2013). Not only do legislators elected under open primary systems demonstrate no greater moderation than legislators elected under closed primary systems, as some prior work indicates, but the \textit{candidates} for office are also no more moderate in open systems than they are in closed systems.

Second, to the extent that primary systems had a significant effect on candidate ideology, the effect was often in the opposite direction from what theoretical models generally predict, or else inconsistent across parties and/or offices. This combination of results suggests that scholarship on the effects of primary systems on candidate and legislative behavior typically overlooks the ways in which electoral institutions shape the behavioral incentives for the parties themselves. One possible explanation is that open primaries reduce party control over candidate nominations and, thus, lead primary voters to select more ideologically extreme candidates than parties themselves would ultimately prefer. In support of this explanation, Hassell (2012) finds that closed primary systems provide parties with greater control over candidate selection, thereby resulting in more moderate candidates. An alternative explanation is that open primaries sometimes produce more ideologically extreme candidates because parties increase their efforts to support party loyalists in open primaries, especially during an age of heightened polarization. Because open primaries allow any citizen to participate in the selection of a party’s nominee, a party’s intervention could be more critical for electing a loyal partisan in an open primary system than it would be in a closed primary system, where “partisan purists” comprise a larger proportion of the primary electorate.
Third, and contrary to arguments presented by politicians such as Senator Schumer, nonpartisan primaries—such as the one introduced in California for legislative races in 2012, and applied to statewide contests in 2014—do not appear to be an effective tool for reducing party polarization. The inconsistent results across parties, subsets of candidates, and legislative institutions do not allow us to reject the null hypothesis that nonpartisan primaries have no effect on candidate ideological extremity. Furthermore, some of our findings echo prior research (Ahler, Citrin, & Lenz, 2013; Kousser, Phillips, & Shor, 2013; McGhee et al., 2014) insofar as candidates in nonpartisan primaries are more extreme than candidates in closed primary systems. This leads us to conclude that, to amend a common aphorism, while you may be able to take the primaries away from the party, you can’t take the party out of the primaries.

The null findings presented in this article provide an opportunity to consider why the empirical evidence is inconsistent with the (seemingly) straightforward intuition about how primary rules affect candidate ideology. One possibility is that primary rules simply have little effect on the ideological composition of primary electorates, thus providing little incentive for candidates to adjust their platforms based on the rules governing primary participation. Perhaps only the most committed partisans or ideologues are inspired to participate in primaries, such that more open primary systems simply fail to attract voters with greater diversity of views. Another possibility is that candidates are less responsive to their local constituencies than they are to the policies advocated by the national parties. As the two major political parties have polarized, candidates may perceive reduced incentives to distinguish themselves from the party line, and thus, copartisans tend to adopt similar platforms regardless of the specific primary rules in place. More generally, identifying the specific mechanism responsible for the null findings here is an important task for scholars of elections as well as practitioners and reformers.

We make three final, more speculative, observations. First, additional research is needed about how primary systems affect citizens’ behavioral incentives. The results presented here may indicate that common assumptions about how primary systems affect the composition of the primary electorate may be flawed. As Hill (2014) argues, the ideological composition of the primary electorate relative to the general electorate may be a more relevant quantity of interest for gauging the effects of primary elections.

Second, the results presented in this article examine the effects of primaries across federal and state legislatures. It is beyond the scope of this article to explore how differences across and within each set of legislative institutions might affect the role of parties in primary elections, and how
these differences may condition the effect of primary systems on candidate ideology. Clearly specifying and identifying these differences is an important topic for future research and may generate more precise conclusions about the conditions under which primary rules affect candidate and legislator ideology.

Finally, we believe that more research is needed to investigate the ways in which electoral institutions affect candidates’ strategic incentives. Although a rich theoretical literature examines the considerations that inform a candidate’s platform choice, comparatively little empirical research directly examines these choices. New databases such as DIME afford the opportunity to subject these theoretical predictions to empirical assessment. Moreover, the platforms candidates choose have substantive importance all their own, as the electoral choices can affect the kinds of political decisions citizens make (Levendusky, 2009; Wright & Berkman, 1986) and ultimately whether citizens choose to engage in electoral politics at all (Rogowski, 2014).

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**Authors’ Note**

The files necessary to replicate the analyses in this article can be accessed at the corresponding author’s personal website (http://rogowski.wustl.edu).

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**Notes**

1. It is unclear whether top-two (or nonpartisan) primary systems should induce convergence, however, because convergence is not an equilibrium strategy in elections with more than two candidates.
2. The logic can be illustrated with a simple formalization. Suppose a general election median voter \( x_g \) and a Democratic primary median voter \( x_D \). Assume that candidates must win the vote of the median voter in the primary to secure the
party nomination, candidates are election-seeking, and issue-motivated voters cast sincere votes. As the distance increases between $x_g$ and $x_D$—that is, as the Democratic primary electorate is more liberal with respect to the general election median voter—the Democratic candidates choose increasingly liberal platforms. The distance between $x_g$ and $x_D$ is likely to be greatest when primary participation is restricted to registered Democrats, but smaller when the primary participation rules allow a wider range of voters to participate.

3. McCarty, Poole, and Rosenthal (2006), however, report that this finding is not especially robust.

4. McGhee, Masket, Shor, Rogers, and McCarty (2014) examine the effect of primary rules using estimates of state legislator ideology reported in Shor and McCarty (2011). The Shor–McCarty estimates use candidate survey data from Project Vote Smart to develop a common ideological space across all state legislatures, yet explaining differences in candidates’ platforms across states is not the primary goal of their research.

5. We can think of these platforms as bundles of policy positions that signal to voters some general ideological orientation.

6. See Bonica (2014) for technical details of the estimation procedure.

7. Specifically, Bonica (2014) concludes that “[s]trategic considerations may cause donors to give more but do not appear to cause them to deviate from their personal preferences when deciding how to allocate their funds” (p. 376).

8. The number 10 is admittedly arbitrary, but is the 25th percentile mark of the number of donors to candidates for the lower chamber of state legislature (the 25th percentile of the number of donor to state legislatures’ upper chambers and U.S. Congress is 14 and 19, respectively), and thus allows us to include as many cases as feasible.

9. Eliminating the candidates with fewer than 25 donors drops 14.5% of the U.S. House candidates and 24.4% of state legislative candidates. Furthermore, among candidates with at least 10 unique donors, only 55.5% of House candidates and 29.8% of state legislative candidates also received contributions from 100 or more unique donors.

10. Both sets of results can be found in Supplementary Tables A.1-A.3. We further note that the correlation between the number of donors and total receipts is fairly low ($r = .34$), and thus, even candidates with relatively small numbers of donors could have received relatively substantial campaign contributions.

11. Nebraska has a unicameral legislature, and thus, we classify it here as an upper chamber.

12. Elsewhere, Ansolabehere et al. (2001b) referred to estimates of candidates’ platforms as measures of candidates’ “electorally-induced” preferences.

13. Put somewhat differently, the donors who contribute to a candidate’s campaign can be characterized as part of an extended party network (e.g., Koger, Masket, & Noel, 2009) who work together to support the party’s electoral goals. Thus, when voters cast votes for candidates, they also cast votes for a party. Although a unidimensional measure of ideology may not fully capture the complexities of
party networks, the key assumption is that these donors’ contributions are made at least in part based on ideological congruence with the candidates.

14. Due to ambiguities about how to code the primary systems in Alaska, which differed across parties and switched multiple times in the 1990s and early 2000s, candidates from Alaska are excluded from the analysis.

15. Due to the subtleties that distinguish semi-open from semi-closed primaries, we replicated our analyses that followed the coding procedure used in Gerber and Morton (1998), in which these two primary systems were jointly classified as an intermediate system between pure open and pure closed primaries. Our substantive conclusions remain unchanged, as Table A.4 in the supplementary appendix shows.

16. For most of the time series, only a very small number of candidates ran for office in states with nonpartisan primaries, and thus, they are omitted from the figure.

17. As a check on the parallel paths assumption that accompanies use of the differences-in-differences (DID) estimator, we have also estimated all the models shown in the text while also including state-specific linear time trends. All coefficients for primary type are virtually identical to those reported in the text. These results are shown in Table A.5 in the supplementary appendix. Thus, our estimates are robust to relaxing the parallel trends assumption.

18. The most critical potential confounder is district-level preferences. Unfortunately, reliable time-varying indicators are not easily obtained for state legislative districts. However, we have estimated models for U.S. House candidates in which we account for district presidential vote share (please see Table A.6 in the supplementary appendix), and the substantive results remain unchanged. This provides confidence that our results for state legislative candidates would be robust to the inclusion of similar measures.

19. We estimated models using DW-NOMINATE scores for successful U.S. House candidates, and find largely consistent results. Table A.7 in the supplementary appendix displays the estimates.

20. Arizona and Maine were the first two states to implement completely subsidized public financing. Connecticut has also implemented full public financing, but it did not take effect until 2008.

References


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