A Primary Cause of Partisanship?
Nomination Systems and Legislator Ideology

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Eric McGhee
Public Policy Institute of California
mcghee@ppic.org

Seth Masket
University of Denver
smasket@du.edu

Boris Shor
Harris School of Public Policy, University of Chicago
bshor@uchicago.edu

Steve Rogers
Princeton University
rogerssm@princeton.edu

Nolan McCarty
Princeton University
nmccarty@princeton.edu

Abstract:

Many theoretical and empirical accounts of representation argue for the polarizing influence of primary elections. Likewise, many reformers advocate opening party nominations to non-members as a way of increasing the number of moderate elected officials. However, data and measurement constraints have limited the range of empirical tests for this effect. We marry a unique new data set of state legislator ideal points to a detailed accounting of primary systems in the United States to gauge the effect of primary systems on polarization. The results suggest that the openness of a primary election has little, if any, effect on the extremity of the politicians it produces. We discuss the implications of our study for the literature on American political parties.

"We have a system today where, with… a closed right primary and a closed left primary, which is Republican and Democrat, we have folks that come up there—and, frankly, they're concerned about the next election, their next position. They're concerned about party bosses. They don't worry about what's really important, and that's the state of California. We get this partisanship."

-Abel Maldonado, California Lieutenant Governor

Introduction

Few dispute that the Congress and most state legislatures are historically polarized and growing more so each year. To many, it is a cause for concern: elected officials are pandering to partisan interests at the expense of the common good. The quotation above (Vocke 2010) is just one example of this perspective, coming from a state with both one of the most polarized legislatures (Shor and McCarty 2011) and one of the worst budget crises (Wood 2010) in the country. To reformers, this combination of partisan rancor and fiscal meltdown means that fixing the budget problem can only happen once the political parties are severely weakened or removed from the political process altogether (Kousser 2010).

Reforming primary institutions is often mentioned as a mechanism to reduce polarization (e.g.: Fiorina et al. 2005). The idea is a simple one: elected officials are pulled to the extremes in large part because they must appeal to the extreme voters who disproportionally influence party nominations. In the absence of the primary electoral pressures, politicians could adhere more to the political center in classic Downsian fashion (Downs 1957).

The presumed connection between primary electoral institutions and polarization is important in two respects. First, the idea has considerable intuitive appeal and has been popular among reformers for many years. California recently adopted a radically open "top two" primary in an effort to weaken the influence of parties over the

nomination process, and this change might stimulate further efforts to reform primary systems around the country.[1]

A theoretical issue is also at stake. The presumed link between primary systems and polarization models parties primarily as aggregators of mass opinion. According to this model, primary electorates define the parties and the positions of their elected representatives: change the electorates, and one changes the representatives' positions. Other recent models of parties however assign a more central role to party elites—interest groups and activists—who shape the party's position for both the general public and the party rank-and-file alike. In this model, changing the electorate has a smaller effect on representatives' behavior because it is the most active and interested members of the party that determine nomination decisions. Thus, the connection between primary systems and polarization revolves around this fundamental debate about the nature of parties.

To gauge the effect of primary election reform on polarization, we marry a unique new data set of state legislator ideal points to a detailed accounting of primary systems. The results of this analysis suggest that the openness of a primary election system has little to no effect on the ideological positions of the politicians it elects.

Primary Systems and Polarization

Determining who should be allowed to participate in a primary election is a thorny normative issue that goes to the heart of what parties are and what role voters play

[1] California's "top two" primary allows voters to choose any candidate for any office, regardless of party. The two candidate receiving the most votes—again, regardless of party—advance to a fall run-off election. In essence, the "top two" system eliminates party nominations and replaces them with a first-stage general election.

in them. Are parties public organizations in the sense that all citizens have a right to participate in their decision-making processes? Behind this normative question is an empirical one: to what extent do voters shape the identity of a party's elected representatives? At one end of the debate are scholars like E. E. Schattschneider (1942), who understand parties as collections of elites involved in the business of controlling elections and government and feel that mass involvement in party nominations is at best a polite ruse. Parties, after all, have no control over who their members are, and those members bear no obligations to the party, even if they assert a right to decide that party's stances and nominees. For Schattschneider, the party rank-and-file are no more members of the party than baseball fans at a stadium are members of the team for which they are rooting.

Rosenblum (2008), however, takes issue with Schattschneider's baseball metaphor, arguing that partisan voters lend particular value to a political system. "This is not the sheer vicariousness of Red Sox fans 'high-fiveing' their team's victory… A Republican victory really is Republicans' doing. Partisans sustain and affect the play" (pp. 354-5). Seen in this way, partisan voters are far from mere spectators; they shape partisan contests and ensure that parties stand for consistent ideals from election to election.

Advocates of open primaries emerge from this second intellectual tradition, and assume the mass public is decisive to the nature of partisan representation. Although Maldonado and others speak of party bosses, the bosses they imagine have power over candidates only because they represent an overly homogeneous group of voters. According to this perspective, an open primary system undermines parties by diversifying

the primary electorate, which in turn deprives party leaders of the power that comes from speaking for a unified community. Most theoretical literature on primaries takes a similar view, arguing that departures from the Downsian model by elected officials can be explained in part by the relatively extreme group of voters who select the candidates (Aldrich 1983; Aranson and Ordenshook 1972; Cadigan and Janeba 2002; Owen and Grofman 2006).

Ironically, early 20th-century Progressive reformers originally touted the party primary as a way to thwart party bosses (Ranney 1975; Mowry 1951). The party's key decisions about what stances to take and which candidates to nominate would henceforth be made not by a group of convention attendees or a small clique of elites in a smoke-filled room but by the party's voters at large. Historically, however, party leaders have proven adept at convincing party voters to ratify their decisions at primaries, and party voters rarely nominate a candidate with whom party leaders are uncomfortable (Cohen et al. 2008; Masket 2009).

More recent theoretical and empirical work highlights the ways in which voters are at best a weak mechanism for enforcing party discipline. First, some evidence suggests primary electorates are not all that extreme (Norrander 1989; Geer 1988). Second, the logic linking open primaries and moderation is more complicated than it might appear. Formal models of open primaries and multi-candidate races do not produce consistent expectations about the winner's ideology, and extreme candidates may win even when the median voter in the primary electorate is moderate (Cooper and Munger 2000; Cox 1987; Chen and Yang 2002; Oak 2006). Third, some arguments linking open primaries to moderation depend on crossover voting, where voters cast a ballot for a

candidate with a party identification different from their own. But crossover voters rarely determine the outcome of an election (Alvarez and Nagler 2002; Southwell 1991). If crossover voters are not pivotal, they cannot force a candidate toward the center of the spectrum. In fact, crossover voters likely vote based on candidate saliency first, and only then on ideological affinity (Alvarez and Nagler 2002; Salvanto and Wattenberg 2002). This plays into the hands of elites, who often play a critical role in deciding which candidates are salient in the first place.

All these factors help explain why the bulk of recent empirical studies on primaries have found either little direct effect on polarization (McCarty et al. 2006a; McGhee 2010; Hirano et al. 2008) or no evidence of the supposed mechanisms underlying such a link (Brady et al. 2007; Pearson and Lawless 2008). However, the empirical literature on this question is far from settled, and several studies have argued for a significant effect from nomination procedures (Wright and Schaffner 2002; Gerber and Morton 1998a; Kanthak and Morton 2001; Bullock and Clinton 2011). Until recently, scholars either were forced to depend on either on purely cross-sectional data, or were constrained to analyze either the U.S. House of Representatives or a limited number of state legislatures. Our analysis seeks to correct both limitations by linking a unique data set of legislator ideal points to a detailed accounting of primary systems.

Primary Systems in the United States

Today the United States has a hodge-podge of different primary election rules, with some states sharply limiting participation to longstanding party registrants and

others opening it to any citizen over 17. These systems differ on a number of dimensions:

1. *Independents vs. all voters:* Is participation by non-members limited to independents or is it extended to members of opposing parties as well?
2. *Public vs. private*: Is the decision to cross over into another party's primary one that must be made publicly, or is it left to the privacy of the voting booth?
3. *Registration requirement*: If the decision to cross over is public, does it require registration with the party whose primary the voter chooses to join?
4. *Choosing parties vs. choosing candidates*: Can crossover voters choose candidates of different parties in different races, or must they commit to voting only for candidates of one party?
5. *Blanket vs. top-two vote-getter*: Do systems that allow voters to choose candidates of any party in any race advance the winners within each party (blanket primary) or the top two winners overall (top-two vote-getter)?

The literature provides little consistent guidance on what to expect from this variation. Theoretical approaches tend to assume that voters are either allowed to cross over or not—and so they make no predictions about the effects of variations 2 and 3 above. Moreover, this research typically assumes an election with only one race, which rules out the distinctions in variations 4 and 5 as well (Chen and Yang 2002; Kang 2007; Oak 2006). Empirical and experimental work has factored in more distinctions, but to varying degrees. For instance, Kanthak and Morton (2001) distinguish between both public and private crossover decisions and blanket and top-two vote-getter systems, but

Gerber and Morton (1998) and Cherry and Kroll (2003) do not. We are not aware of any research that explores the effect of a registration requirement.

Table 1 here.

Previous research simplifies this variation to produce five primary types: pure closed, semi-closed, semi-open, pure open, and nonpartisan. Table 1 presents these categories of primary systems, along with the criteria by which they are categorized and the predicted effect from the literature. Despite the monotonic relationship between openness and moderation that is implied by these names, predictions from the literature are more complicated. Extant research generally finds pure closed primaries elect relatively extreme candidates, at least if one assumes that voters in each primary electorate are relatively extreme as well (Cherry and Kroll 2003; Gerber and Morton 1998; Kanthak and Morton 2001; Oak 2006). The research also agrees that semi-closed and nonpartisan systems produce relatively moderate candidates in most circumstances (Gerber and Morton 1998; Kanthak and Morton 2001), though some experimental evidence casts doubt on this prediction for nonpartisan systems (Cherry and Kroll 2003).

Pure open systems produce mixed predictions and results. Formal models sometimes predict relatively extreme representation from such systems, and some empirical research confirms this prediction (Gerber and Morton 1998b; Oak 2006). This counterintuitive result depends on a fair amount of *raiding*: crossing over to strategically vote for the weakest candidate in the opposing party's primary. Kanthak and Morton (2001) contend that these predictions conflate semi-open and pure open systems, and only the latter consistently produces more extreme candidates. This claim hinges on the notion that the public nature of crossover voting in semi-open systems shames potential

raiders into sticking with their party. However, empirical studies suggest that raiding is rare, perhaps because it requires complicated coordination among voters if it is to be successful (Alvarez and Nagler 2002; Sides et al. 2002). Overall, it is fair to say that the predictions of a heterogeneous effect are fragile and dependent on assumptions that may not be realistic in practice.[2] As a result, we treat the predictions for semi-open and pure open systems as "mixed" in Table 1, to reflect the uncertainty about the expected effect.

Data

To code primary systems, we gathered information from the websites of each of the 50 states, and followed up with phone calls to each one to confirm our information. In some cases, we also contacted state parties or directly examined the state's election code. Details of this process, as well as how we handled a variety of judgment calls, is in the appendix.

To assess the effect of primaries on the polarization of state legislatures, we need a measure summarizing the ideological or partisan behavior of individual legislators that is comparable across states. To this end, we use a new dataset of ideal points of state legislators developed in Shor and McCarty (2011). These data are based on state legislative roll call votes from all state legislatures from at least 1996 until at least 2006

[2] It is tempting to assume that an open primary will make representatives more responsive to the district median. But an open primary does not make candidates more aware of the district or the primary median in a way that would make them more responsive; it simply moves the primary median toward the opposing party. For example, Democratic candidates to the left of their primary median might move toward the center under an open primary system, as their primary median moves in the same direction. But Democratic candidates to the right of the Democratic median should not move at all—the median is already moving toward them. The same is true in the opposite direction for Republicans. In effect, relatively conservative Democrats and liberal Republicans have already escaped the centrifugal pressures of the closed primary, so an open primary should make little difference to their ideological positioning. Thus, responsiveness to the district median will only improve in an open primary with candidates who are too extreme, and changes in candidate positions should occur in a moderating direction.

and include over 18,000 state legislators. To establish comparability of ideal point estimates across chambers, states, and time, Shor and McCarty use the National Political Awareness Test (NPAT), a survey of state and federal legislative candidates that uses largely identical survey language across states and time. Roll call-based ideal points are mapped into comparable NPAT common space with predictions drawn from regressing state roll call scores on NPAT survey scores.

Figure 1 here.

Figure 1 summarizes one of Shor and McCarty (2011)'s key findings. The level of polarization in the U.S. Congress – the subject of substantial scholarly attention (McCarty et al. 2006b; Theriault 2008) – is not an outlier. There is a wide range of legislative polarization across the states. The majority of state legislatures are less polarized than the U.S. Congress, but fifteen are more polarized. California has the most polarized state legislature by far; Congress is bipartisan in comparison.[3] On the other end, Rhode Island and Louisiana are the least polarized. In the former, Democrats are liberal but so are the Republicans. In the latter, the converse is true. Shor and McCarty (2011) also find that the degree of polarization has increased in most states.

Finally, we need measures of district preferences for the sake of analytical control. For the U.S. House, such preferences are usually measured with some proxy, such as U.S. presidential vote, perhaps supplemented with other data (Levendusky, Pope and Jackman 2008). Such data are generally not publically available for state legislative districts. However, the National Committee for an Effective Congress generously provided 2004 and 2008 presidential vote by post-2000 legislative district for 48 states. For earlier legislative sessions, we compiled the 2000 presidential vote by pre-2000

[3] See Masket (2009) on the causes and consequences of polarization in California.

legislative district for 45 states (with numbers for one of two chambers in one additional state). Data for this compilation came from the Center for Congressional and Presidential Studies, Secretaries' of States offices, and local boards of elections.[4] Details of ideology and primary systems for each set of cases are available in Table A9 of the appendix.

Results

Figure 2 shows the average ideal point in each year for the different categories of primary system. There is some variation over time, but the levels of polarization—as measured by the distance between the ideal points for one party and the other—are mostly constant throughout. More to the point, the overall polarization is roughly the same across systems: while all legislators are more liberal or conservative in one system or another, the gap between them fails to fit any obvious pattern. In fact, in at least some of the years it is nonpartisan primaries that seem to have the largest gap.

Figure 2 here.

The information in these graphs is limited because it does not account for variation between states. Some states have changed their primary systems and others are not present in early or late years of the data set, so the precise group of states in each category is not constant. In particular, the Supreme Court's rejection of the blanket primary left only Louisiana with a nonpartisan primary after 2002, which helps explain the sudden convergence of the two parties in that category in recent years.

Table 2 here.

[4] For any analysis that controls for or matches on presidential vote, this cuts the number of available cases by a modest number. The loss of these cases does not appear to introduce any serious biases in the analysis. Equivalent models with and without these cases although produce slightly different results that we highlight. In no instance does the inclusion of these cases alter our central conclusions.

The most rigorous way of accounting for this state-level variation is with a fixed effects regression, where a dummy variable is estimated for each state. We present the results of such a model separately by party in Table 2, which also includes dummy variables for election years.[5] With the inclusion of state and year fixed effects, our estimates of the effects of primary systems are identified on changes in primary systems within a state. Consequently, the coefficient on each primary system is a difference-in-difference estimate that indicates the difference between the extremism of the legislators in states that make a particular in change primary systems and the extremism of those in states that do not. Because the dependent variable is always positive for conservatives and negative for liberals, the coefficients on primary system should be negative for Republicans and positive for Democrats if they are to suggest greater moderation.

The results demonstrate little effect of differences in primary electoral systems. None of the coefficients for Democrats is statistically significant, and the only significant coefficients for Republicans are unexpected: estimates suggest Republicans in semi-closed and nonpartisan systems are *more* conservative than those in pure closed ones. Moreover, the substantive size of these effects is small by comparison with the gap between the parties. As predicted from our model, the difference between the average Republican and Democrat for the median state (Florida) is 1.13—almost 10 times the

[5] We ran separate models for each party, as opposed to one model with interactions for parties, to simplify presentation and interpretation. The results hold when we run these regressions as multilevel models, dropping the fixed effects and instead modeling states and years as level two predictors with mean zero and variance estimated from the data (Gelman and Hill 2007), although semi-closed, semi-open, and non-partisan systems appeared to make Republicans more extreme in this specification. See Table A1 in the appendix for details.

largest moderating effect in either party (a statistically insignificant difference of 0.146 between Democrats in pure open and pure closed systems).[6]

It might be that all politicians are subject to pressures toward polarization, but open primaries weaken those pressures. This idea has some intuitive appeal. The forces that lead to polarization are unlikely to disappear in a more open primary system, but they might have a mitigated influence on the nomination process. One way to explore this idea is to include a time trend in our equations that is interacted with the different primary systems. If a more open primary weakens an otherwise polarizing trend, the time trend should be negative for Democrats and positive for Republicans, while the interaction coefficients should have the opposite sign in each case. Figure 3 graphs estimated trend lines for each system based on the coefficients from this model. Contrary to any expectation of a moderating effect, the story in Figure 3 is one of overwhelming consistency—and consistent polarization—across primary types.[7]

Figure 3 here.

We ran several robustness checks for these core results. First, we ran models controlling for presidential vote. For the years from 1992 to 2000 we used district presidential vote from 2000, while for the years from 2002 to 2008 we used the average of district presidential vote from 2004 and 2008. This helps account for cross-sectional variation within decades as well as any significant differences due only to the redistricting of 2001. The state and year fixed effects are included as before.

[6] We calculated this difference by first predicting separate values for each state after setting both primary systems and year fixed effects to their means in the data set. We then subtracted each state Democratic prediction from the corresponding Republican prediction for the same state.

[7] The coefficients and model fit for these regressions are in Table A3 of the appendix. We also ran these regressions as multilevel models. The results, in Table A1 of the appendix, were broadly similar, though perhaps somewhat more supportive of a polarizing effect for open primaries. The time trend results also hold when we include the presidential vote as a control (available from the authors upon request).

Table 3 here.

The results can be found in Table 3. As a baseline, we first run the difference-in-difference model from Table 2 on the subset of data for which we have the presidential vote, and then add the presidential vote as a control. Though the estimates that control for presidential vote suggest a few large and statistically significant effects for primary systems, only one of them—a positive coefficient of 0.156 for Democrats in pure open primaries—is both statistically significant and suggestive of a moderating effect. The other significant effects—for semi-closed systems in both parties (-0.104 for Democrats, 0.164 for Republicans)—suggest that a more open primary system leads to a more extreme legislator. Moreover, most of these effects are also visible without the presidential control, suggesting it is the subset of data we are using here that produces these particular effects. We also tested these results by running a nearest-neighbor match on presidential vote for each of the four primary system dummies (semi-closed, semi-open, pure open, and non-partisan) in turn. The results (in Tables A5 and A6 in the appendix) confirmed all the effects in Table 3.

The addition of presidential vote data allows us to test a different hypothesis. If open primaries induce moderation through crossover voting, then the impact of an open primary system might be conditional on the number of voters who are available to cross over. In a more open primary, districts with more Republican voters should induce greater moderation in Democratic candidates, while those with more Democratic voters should induce moderation in Republicans. Indeed, in a careful study, Bullock and Clinton (2011) examine moderation in California under the blanket primary and uncover just such a pattern of effects: the blanket primary pulled candidates in competitive

districts toward the center while having no effect on those in more lopsidedly partisan constituencies.

Figure 4 here.

We can test this notion with interactions between each primary system and the district presidential vote. We graph predictions from this model in Figure 4.[8] In each graph, the x-axis is the competitiveness of the district, so higher values indicate a seat that is more difficult for the party to hold. The converging lines for the two parties indicate that, as one might expect, seats that are harder for a party to hold encourage more moderate candidates, to the point where highly competitive districts elect candidates with similar ideological profiles. Nonetheless, we should see relatively flat lines (i.e., less convergence) for closed primaries, suggesting that candidate positions are insensitive to the composition of the electorate. We should also see steeper lines (i.e., more convergence) for the other systems, as the openness of the primary draws more moderate candidates in competitive districts. Some of the differences between estimated trend lines in Figure 4 are statistically significant, and one (for pure open systems) is also in the expected direction. However, none of the effects is substantively large, and all the trend lines appear very similar. It is difficult to conclude from this evidence that open primaries have an effect of any importance.

Our second robustness check addressed the question of endogeneity. A state might move to a more open primary system as a response to polarization that has already occurred, with the change most likely imposed from outside the legislature through an initiative passed by voters. Likewise, a state might move to a more closed primary in order to arrest a trend toward moderation, perhaps if parties or interest groups became

[8] Full results are available in Table A4 in the appendix.

concerned that they were losing control of legislators and believed a closed primary would offer more influence. Thus, the true effect of an open primary might be to produce moderation, but the very states that adopt it would also be the ones with the strongest polarizing forces at play.

This is a difficult problem to address, since we cannot randomly assign an open primary system to each state and observe the result. However, in 2000 the U.S. Supreme Court struck down the blanket primary in the three states that employed it at that time: Alaska, California, and Washington (see *California Democratic Party v Jones*, 530 U.S. 567). We treat this court decision and its aftermath as an exogenous shock that led all three states to adopt a more closed system in response: Alaska switched to a semi-open system, California to a semi-closed, and Washington to a pure open. Did these changes make legislators in each state more polarized?

To test this idea, we conducted separate analyses of the three blanket primary states. For each one, we first limited the data to the years when the state in question used either the blanket primary or the system it adopted immediately after abandoning the blanket. We also limited the set of comparison states to those that used the system ultimately adopted by the state in question. As an example, the California analysis was limited to the years 1998 and 2000 (when the state used the blanket) and 2002 through 2008 (when it used a semi-closed system), and then further restricted to those states besides California that used the semi-closed system at any point in that period. We then conducted a nearest-neighbor match on district presidential vote, purging any states or districts that fell outside the convex hull as before. Finally, we regressed ideology on state and year fixed effects, the district presidential vote, and a dummy for years

following the court decision.[9] (The coefficient estimates and model fit can be found in the appendix.) The court's decision appears to have had an effect in the expected direction only for California Democrats, who were somewhat more extreme after the decision than before. All effects for Republicans were in the correct direction but failed to achieve statistical significance, while for Democrats the effect in the other two states appears to have been to make the legislators slightly more moderate—the opposite of what would be expected given the change.

Our final robustness check explored other ways of classifying primary systems besides the simplified divisions we have considered up to this point. Specifically, we tested simple dummies for the following combinations: open (in any way), open for independents only, open for all voters, open where the individual decision of which primary to join is private, open where the decision is public, open with a registration requirement, and open without any change in registration required.[10] A pure closed system was the comparison category in each case. For these different categorizations, we ran all the same models we have thus far employed: state and year fixed effects, fixed effects with presidential vote controlled, multilevel, and matching. In virtually every case, the more open system produced politicians at least as polarized as in a closed primary. The two categories "open for all voters" and "open with a private decision" had

[9] The first "post-*Jones*" election in Alaska and California was 2002; Washington did not abandon the blanket primary until 2004, so for that state only we treat 2004 as the first "post-*Jones*" election. We also tested simpler models without state and year fixed effects or the presidential vote, using instead a dummy for years after the decision, a dummy for the state in question (i.e., Alaska, California, or Washington), and an interaction between the two to test the effect of the new primary law. None of the interaction coefficients produced substantive results different from those reported in the appendix. These results are available from the authors upon request.

[10] Some of these categories necessarily overlap. The most obvious example is the "open in any way" category, which subsumes all the others, but there are several other examples: "open for independents only" is a subset of "open for all voters," "open with a registration requirement" is a subset of "open where the decision is public," and so forth. Any two mutually exclusive categories were included in the same model together. The results of all of these models are available from the authors upon request.

moderating effects in some models, and the registration requirement had a moderating effect in the matched data, but these effects were only statistically significant for Democrats.

Conclusion

This study has examined the link between the openness of a primary system and the ideology of the state legislators elected under it, using a unique data set of legislator ideal point estimates and the most thorough accounting of primary systems available. The results suggest that these systems have little consistent effect on legislator ideology. In fact, most of the effects we have found tend to be the opposite of those that are typically expected: the more open the primary system, the more liberal the Democrat and the more conservative the Republican.

The question is what to make of these results. Although there are some statistically significant effects, we believe our findings generally fail to reject the null hypothesis of no effect from primary systems. No result is robust across all the models and specifications we tested. The closest is the finding that semi-closed systems elect more conservative Republicans and more liberal Democrats than closed systems do, which holds for most of the regressions. But this effect is not predicted by any of the theoretical or empirical literature, which identifies semi-closed primaries as one of the only types certain to provide more *moderate* politicians relative to those produced by closed primaries.

Moreover, even the polarizing effects we find are dwarfed by the considerably larger average gap between the two parties in most states. In fact, the most robust finding

is that unexplained differences between the states absorb a large share of the variance in legislator ideology—at least one-third regardless of the model or specification.[11] Whether this represents the state's political economy, its political culture, its demographics, or its other political institutions, it seems safe to say that primary elections are not a big part of the explanation. We leave it to future research to identify stronger factors.

It is difficult to say precisely why the effect of open primaries is so weak. The logical basis for a moderating effect is simple and plausible: if voters closer to the middle of the ideological spectrum are allowed or encouraged to participate in a primary election, they will vote for relatively moderate candidates and the winning nominee will be moderate. But as plausible as the idea may be, we have tested it with the most comprehensive data on legislator ideology and primary systems available to date, and there is little evidence to support it.

Where might the logic of a moderating effect go awry? First, the level of crossover voting might not be large enough to produce moderating effects. It is also possible, as formal models suggest, that the logic of an open primary is more complicated than it appears, since a moderating effect is dependent on a number of assumptions about the distribution of voter ideology and the pattern of candidate emergence in each race.

Another possible explanation for the null finding comes from recent theories of parties (Bawn et al. 2006). These theories emphasize the critical role of donors and party activists, who have perspectives that may be more extreme than the average party registrant. Because these supporters can provide the critical resources necessary to wage

[11] For example, the difference in adjusted R^2 between a model with only primary system dummies and one with fixed effects for states is about 0.35 for both Democrats and Republicans.

competitive campaigns, they draw potential candidates to their more extreme positions while denying more consistently moderate candidates the ability to win. When one considers that voters must hear of a candidate before they vote for that person, it becomes clear how the absence of moderate sources of campaign funds and volunteer activity may hamper moderate candidates far more than the composition of the primary electorate. Open primaries give voters the option to cross party lines, but partisan actors give candidates the means to convince voters that they should do so.

We are not prepared to say that nomination systems could never have the predicted moderating effect. There are some approaches that we have not explicitly tested, such as elections where party signals are not even provided on the ballot or are difficult to divine. Examples include Nebraska's nonpartisan legislative elections, the nonpartisan local elections in many states, or the cross-filing system in California during the first half of the 20th century, where party labels were excluded from the primary ballot and Republicans could run in Democratic primaries and vice versa.

Moreover, if external party activity is indeed important in explaining legislative behavior, then it may tell us something about when and where nomination systems can have a more important effect. Parties are a powerful means of organizing a legislature, because they draw together diverse interests under a common banner of controlling government. All other external interests, by themselves, have limited goals that severely constrain their power to influence politics on a wider array of topics. Thus, when party organizations—whether formal or informal—are already strong, the type of nominating system may be hard pressed to prevent them from wielding outsize influence on the legislative process. But when party organizations are weak, an open primary system

might hamper their efforts to supplant other networks of interests and make themselves the dominant schism in the legislature.

Regardless of the mechanism, our analysis suggests we should expect little from open primary reform in the modern political age. The effect is inconsistent and weak, and where it is stronger and more robust, it is the opposite of the one that is generally intended.

References

Aldrich, John H. 1983. "A Downsian Spatial Model with Party Activism." *American Political Science Review* 77 (December):974-90.

Alvarez, Michael R., and Jonathan Nagler. 2002. "Party System Compactness: Measurement and Consequences." *Political Analysis* 12 (1):46-62.

Aranson, Peter H., and Peter C. Ordenshook. 1972. "Spatial Strategies for Sequential Elections." In *Probability Models of Collective Decision Making*, ed. R. G. Niemi and H. F. Weisberg. Columbus, OH: Charles E. Merrill Publishing Company.

Bailey, Delia, and Ferdinand Alimadhi. 2007. "ls.mixed: Mixed effects linear model." *Kosuke Imai, Gary King, and Olivia Lau, Zelig: Everyone's Statistical Software* *http://gking.harvard.edu/zelig*.

Bawn, Kathleen, Marty Cohen, David Karol, Seth E. Masket, Hans Noel, and John Zaller. 2006. "A Theory of Political Parties." In *American Political Science Association*. Philadelphia, PA.

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):79-106.

Bullock, Will, and Joshua D. Clinton. 2011. "More a Molehill than a Mountain: The Effects of the Blanket Primary on Elected Officials' Behavior from California." *Journal of Politics* 73 (3):915-30.

Cadigan, John, and Eckhard Janeba. 2002. "A Citizen-Candidate Model with Sequential Elections." *Journal of Theoretical Politics* 14 (4):387-407.

Chen, Kong-Pin, and Sheng-Zhang Yang. 2002. "Strategic Voting in Open Primaries." *Public Choice* 112 (1/2):1-30.

Cherry, Todd L., and Stephan Kroll. 2003. "Crashing the Party: An Experimental Investigation of Strategic Voting in Primary Elections." *Public Choice* 114 (3-4).

Cohen, Marty, David Karol, Hans Noel, and John Zaller. 2008. *The party decides : presidential nominations before and after reform*. Chicago: University of Chicago Press.

Cooper, Alexandra, and Michael C. Munger. 2000. "The (Un)Predictability of Primaries with Many Candidates: Simulation Evidence." *Public Choice* 103 (3-4):337-55.

Cox, Gary W. 1987. "Electoral Equilibria under Alternative Voting Institutions." *American Journal of Political Science* 31 (February):82-108.

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

Fiorina, Morris P., Samuel J. Abrams, and Jeremy C. Pope. 2005. *Culture War? The Myth of a Polarized America*. New York: Pearson Longman.

Geer, John G. 1988. "Assessing the Representativeness of Electorates in Presidential Primaries." *American Journal of Political Science* 32 (4):929-45.

Gelman, Andrew, and Jennifer Hill. 2007. *Data Analysis Using Regression and Multilevel/Hierarchical Models*. New York: Cambridge University Press.

Gerber, Elisabeth R., and Rebecca B. Morton. 1998a. "Primary Election Systems and Representation." *Journal of Law, Economics & Organization* 14 (2):304-24.

Gerber, Elizabeth R., and Rebecca B. Morton. 1998b. "Primary Election Systems and Representation." *The Journal Law, Economics, and Organization* 14 (2):304-24.

Hirano, Shigeo, James M. Snyder Jr, Stephen Ansolabehere, and John Mark Hansen. 2008. "Primary Competition and Partisan Polarization in the U.S. Senate." New York: Columbia University.
Ho, Daniel, Kosuke Imai, Gary King, and Elizabeth Stuart. 2007. "Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference." *Political Analysis* 15 (3):199-236.
Ho, Daniel, Kosuke Imai, Gary King, and Elizabeth Stuart. 2008. "Matchit: Nonparametric Preprocessing for Parametric Causal Inference." *Journal of Statistical Software* 171:481-502.
Imai, Kosuke, Gary King, and Oliva Lau. 2007. "ls: Least Squares Regression for Continuous Dependent Variables." *Kosuke Imai, Gary King, and Olivia Lau, Zelig: Everyone's Statistical Software* http://gking.harvard.edu/zelig.
Kang, Insun. 2007. "Open Primaries and Crossover Voting." In *Midwest Political Science Association*. Chicago, IL.
Kanthak, Kristin, and Rebecca Morton. 2001. "The Effects of Primary Systems on Congressional Elections." In *Congressional Primaries and the Politics of Representation*, ed. P. Galderisis and M. Lyons. Lanham, MD: Rowman and Littlefield.
King, Gary, and Langche Zheng. 2006. "The Dangers of Extreme Counterfactuals." *Political Analysis* 14:131-59.
Kousser, Thad. 2010. "Does Partisan Polarization Lead to Policy Gridlock in California?" *The California Journal of Politics and Policy* 2 (2).
Masket, Seth E. 2009. *No Middle Ground: How Informal Party Organizations Control Nominations and Polarize Legislatures*. Ann Arbor: University of Michigan Press.
McCarty, Nolan, Keith T. Poole, and Howard Rosenthal. 2006a. *Polarized America: The Dance of Ideology and Unequal Riches*. Cambridge: MIT Press.
McCarty, Nolan, Keith T. Poole, and Howard Rosenthal. 2006b. *Polarized America: the Dance of Ideology and Unequal Riches*. Boston: MIT Press.
McGhee, Eric. 2010. "Open Primaries." San Francisco: Public Policy Institute of California.
Mowry, George Edwin. 1951. *The California Progressives*. Chicago: Quadrangle Books.
Norrander, Barbara. 1989. "Ideological Representativeness of Presidential Primary Voters." *American Journal of Political Science* 33 (August):570-87.
Oak, Mandar P. 2006. "On the Role of Primary System in Candidate Selection." *Economics and Politics* 18 (2):169-90.
Owen, Guillerrom, and Bernard Grofman. 2006. "Two-stage electoral competition in two-party contests: persistent divergence of party positions." *Social Choice and Welfare* 26:547-69.
Pearson, Kathryn, and Jennifer L. Lawless. 2008. "Primary Competition and Polarization in the U.S. House of Representatives."
Ranney, Austin. 1975. *Curing the mischiefs of faction : party reform in America*. Berkeley: University of California Press.
Rosenblum, Nancy L. 2008. *On the side of the angels : an appreciation of parties and partisanship*. Princeton: Princeton University Press.

Salvanto, Anthony M., and Martin P. Wattenberg. 2002. "Peeking Under the Blanket: A Direct Look at Crossover Voting in the 1998 Primary." In *Voting at the Political Faultline: California's Experiment with the Blanket Primary*, ed. B. Cain and E. Gerber. Berkeley: University of California Press.

Schattschneider, E. E. 1942. *Party Government*. Westport, CT: Greenwood Press.

Shor, Boris, and Nolan M. McCarty. 2011. "The Ideological Mapping of American Legislatures." *American Political Science Review* 105 (3):530-51.

Sides, John, Jack Citrin, and Jonathan Cohen. 2002. "The Causes and Consequences of Crossover Voting in the 1998 California Election." In *Voting at the Political Faultline: California's Experiment with the Blanket Primary*, ed. B. Cain and E. Gerber. Berkeley: University of California Press.

Southwell, Priscilla L. 1991. "Open Versus Closed Primaries: The Effect on Strategic Voting and Candidate Fortunes." *Social Science Quarterly* 44 (4):789-96.

Stoll, Heather, Gary King, and Langche Zheng. 2005. "WhatIf: Software for Evaluating Counterfactuals." *Journal of Statistical Software* 15 (http://www.jstatsoft.org/index.php?vol=15).

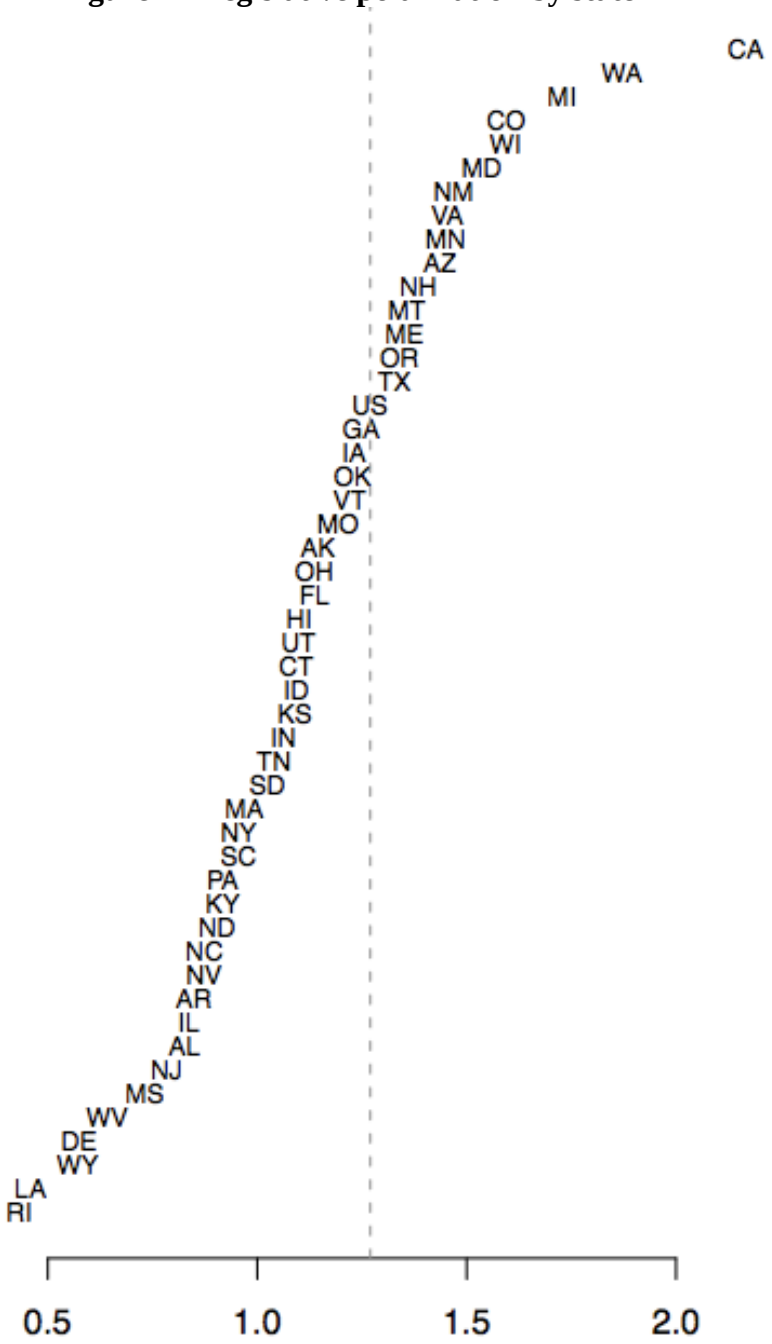
Theriault, Sean M. 2008. *Party polarization in Congress*. Cambridge ; New York: Cambridge University Press.

Vocke, Jr., William C. 2010. "Open Primaries: William Vocke Interviews Abel Maldonado, Lieutenant Governor of California." Carnegie Council.

Wood, Daniel B. 2010. "California budget 'emergency': bid to recoup $6 billion in pensions." *Christian Science Monitor*, July 29.

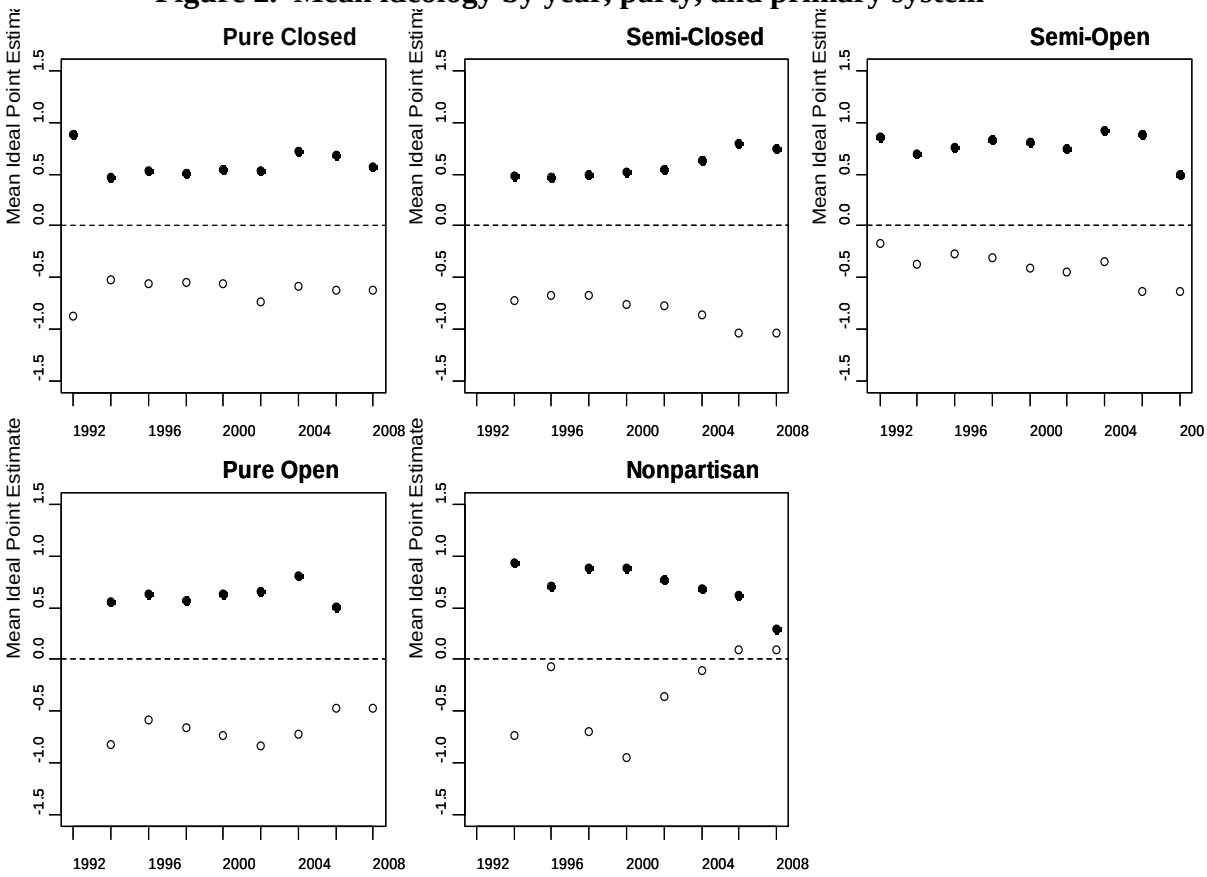
Wright, Gerald C., and Brian F. Schaffner. 2002. "The Influence of Party: Evidence from the State Legislatures." *American Political Science Review* 96 (2):367-79.

Figure 1 - Legislative polarization by state



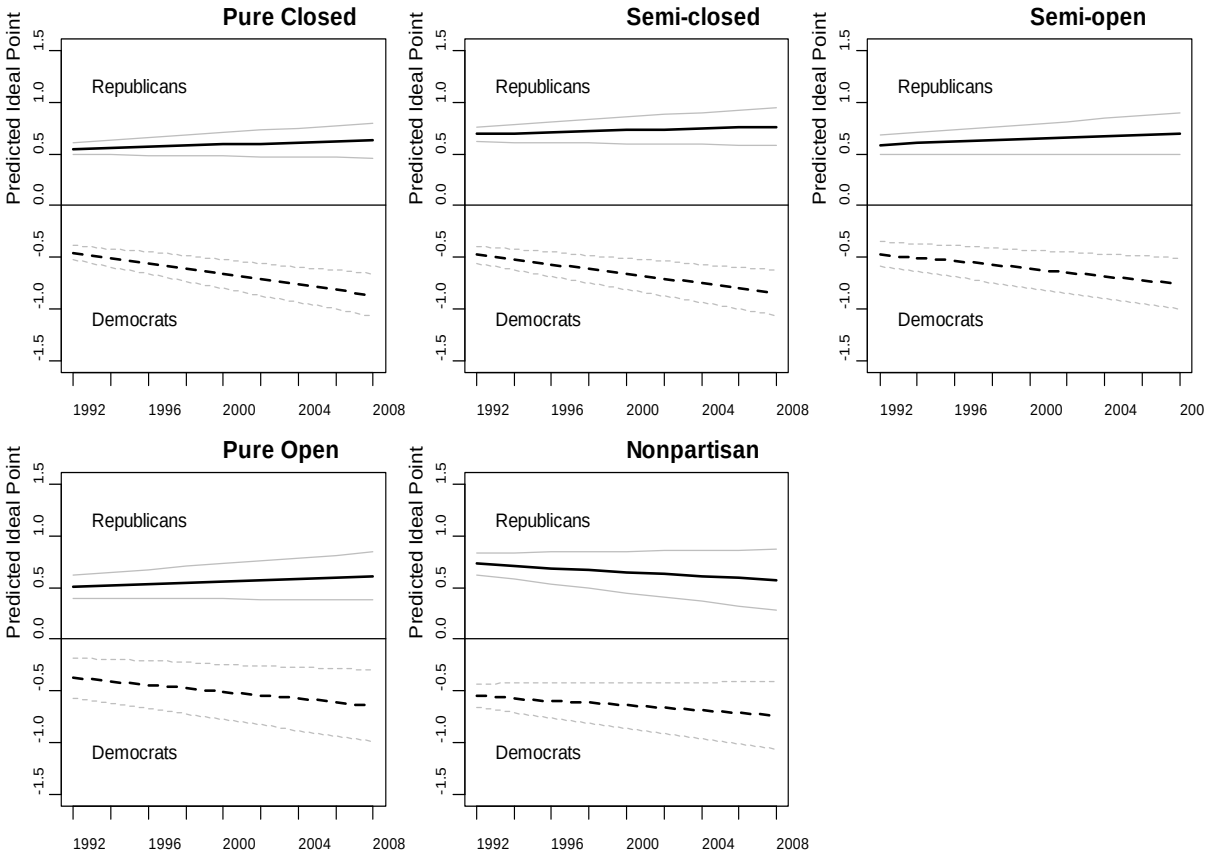
Note: Chart plots the mean levels of state legislative polarization (measured by ideological distance between party medians) over the full time period available for each state, averaged between both chambers. Dotted line represents average of U.S. Congress polarization for comparison.

Figure 2. Mean ideology by year, party, and primary system



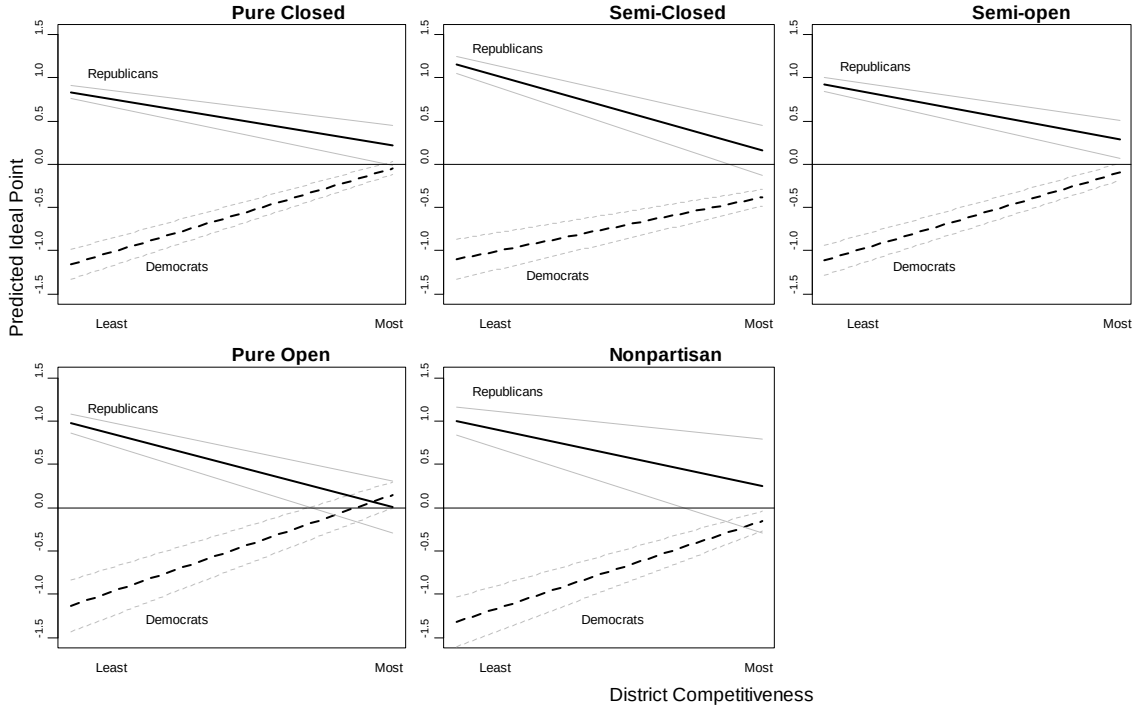
Note: Black points are Republicans, hollow points are Democrats.

Figure 3. Estimated time trends by primary system



Note: Graphs show predicted holding all other variables, including all fixed effects, at their sample means, as calculated in Zelig for R (Imai et al. 2007). The gray lines in each graph represent 95% error bounds around the trend estimate.

Figure 4. Predicted relationship between presidential vote and ideology, by primary system



Note: Graphs show predicted values holding all other variables, including all fixed effects, at their sample means, as calculated in Zelig for R (Imai et al. 2007). The gray lines in each graph represent 95% error bounds around the estimate.

Table 1. System Types

	Crossovers Allowed?	Independents Only?	Public Decision?	Registration Requirement?	Choose Parties?	Literature Prediction
Pure closed	No	N/A	N/A	N/A	N/A	Partisan
Semi-closed	Yes	Yes	Yes	Sometimes	Yes	Moderate
Semi-open	Yes	No	Yes	Sometimes	Yes	Mixed
Pure open	Yes	No	No	No	Yes	Mixed
Non-partisan	Yes	No	No	No	No	Moderate

Note: The first column (crossovers allowed?) indicates whether the system allows crossover voters at all; the second column (independents only?) indicates whether independents alone are allowed to cross over; the third column (public decision?) indicates whether crossover voters must declare their crossover decision publicly; the fourth column (registration requirement?) indicates whether crossover voters must registered formally with the party they cross to; the fifth column (choose parties?) indicates whether crossover voters must stick with the party they cross to or can cross back and forth from race to race; and the final column indicates the prediction from the literature on whether the given system produces moderation.

Table 2. Explaining ideology, 1992-2008

	Democrats		Republicans	
	Coeff	St Err	Coeff	St Err
Semi-closed	-0.029	0.032	0.132***	0.035
Semi-open	0.037	0.071	0.039	0.058
Pure Open	0.146	0.112	-0.051	0.069
Non-partisan	-0.028	0.058	0.084#	0.047
Intercept	-0.694***	0.049	-0.048	0.046
(State & year fixed effects)				
Adjusted R^2	0.457		0.414	
Root MSE	0.375		0.320	
N	9377		9579	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R (Imai et al. 2007). The dependent variable is the first-dimension ideal point for each state legislator. The omitted reference category for primary systems is "pure closed."
#p<0.10, *p<0.05, **p<0.01, ***p<0.001

Table 3. Explaining ideology, 1992-2008, with district presidential vote

	DEMS				REPS			
	(1)		(2)		(1)		(2)	
	Coeff	St Err	Coeff	St Err	Coeff	St Err	Coeff	St Err
Semi-closed	-0.084*	0.033	-0.104**	0.030	0.186***	0.036	0.164***	0.035
Semi-open	0.042	0.073	0.057	0.067	0.057	0.057	0.027	0.056
Pure Open	0.216*	0.093	0.156#	0.085	0.004	0.066	-0.005	0.065
Non-partisan	-0.055	0.059	-0.092	0.054	0.098#	0.05	0.086	0.049
Presidential vote	--	--	-1.233***	0.030	--	--	-0.836***	0.045
Intercept	-0.805***	0.043	-0.033	0.044	-0.003	0.042	0.426***	0.048
(State & year fixed effects)								
Adjusted R^2	0.437		0.529		0.419		0.440	
Root MSE	0.392		0.358		0.336		0.330	
N	8850		8850		8951		8951	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R (Imai et al. 2007). The dependent variable is the first-dimension ideal point for each state legislator. The omitted reference category for primary systems is "pure closed." #p<0.10, *p<0.05, **p<0.01, ***p<0.001

Appendix

Coding Primary Systems

To code the primary systems we visited the websites of the governmental agencies responsible for administering elections in each of the 50 states (usually the secretary of state). We then contacted these agencies to confirm the information from the web and fill in any gaps. We made certain in these interviews to identify the specifics of each system described above, and did not code any information without first confirming its authenticity with our contact. If the contact seemed uncertain about the information, we verified it with a second source—either a contact in one of the state party organizations or a careful examination of the state's election code.

Although elections officials were effective informants about the current primary systems, there was sometimes no person in the relevant government agency who had served long enough to say for certain whether the primary system had changed over the course of our study period. For these cases, we compared the state's current primary system to its system as recorded by Kanthak and Morton (2001) for the late 1990s; if the two codings agreed, we assumed that no change had occurred. If they did not agree, we retrieved archived versions of the state's election code to determine the time of the change. Since many states allow parties themselves to decide whether to permit the participation of non-members, we often had to contact parties directly to determine their decision in each election.

Coding the primary systems required a few judgment calls for borderline cases. Two states—Colorado and Utah—have closed caucus systems that lead to primaries which are open to at least some degree. This caucus stage can serve as a screening

process for the primary candidates, so we treated these states as closed. Some states allow voters to change their registration status on Election Day and then disaffiliate from that party on their way out of the voting booth. Although this ease of disaffiliation might lower the psychological barriers to crossover voting, there were not enough of these systems for separate analysis. Instead, we treated these systems as either semi-closed or semi-open, depending on whether only independents (semi-closed) or all voters (semi-open) were allowed to re-register. Finally, some states force the parties to open their primaries, while others explicitly allow the parties to decide for themselves.[12] For the latter, we treated each party's decision in each election as defining the type of primary system in place. For example, one party's primary might be semi-closed one year and pure closed the next, while the opposing party's primary was closed in both years. Other studies have failed to properly identify this sort of temporal and partisan variation and sometime misclassified primary systems as permanently open or closed.

[12] Technically speaking, the U.S. Supreme Court's decision in *Tashjian v. Republican Party of Connecticut* (479 U.S. 208 1986) prevented states from forcing parties to open their primaries under most circumstances. But many primary systems appear to simply ignore this ruling and compel the state parties to comply.

Table A1. Explaining ideology with multilevel models, 1992-2008

	Democrats		Republicans		Democrats		Republicans	
	Coeff	St Err	Coeff	St Err	Coeff	St Err	Coeff	St Err
Semi-closed	-0.044	0.031	0.127***	0.033	-0.038	0.037	0.119	0.036
Semi-open	0.069	0.059	0.121*	0.048	0.022	0.060	0.079	0.045
Pure open	0.026	0.086	0.008	0.059	-0.041	0.089	-0.012	0.059
Non-partisan	-0.038	0.052	0.100*	0.045	-0.103**	0.060	0.172**	0.054
Year	--	--	--	--	-0.038***	0.007	0.017***	0.004
Year X Semi-closed	--	--	--	--	0.006	0.006	0.000	0.005
Year X Semi-open	--	--	--	--	0.015**	0.006	0.004	0.005
Year X Pure Open	--	--	--	--	0.020**	0.007	0.003	0.006
Year X Non-partisan	--	--	--	--	0.027*	0.011	-0.029**	0.011
Intercept	-0.581***	0.062	0.561***	0.052	-0.445***	0.059	0.510***	0.050
Level 2 Random Effects								
State variance	0.104		0.094		0.104		0.096	
Year variance	0.008		0.002		0.001		0.000	
ρ	0.442		0.482		0.429		0.484	
-2*log likelihood	8490		5628		8504		2824	
N	9377		9579		9377		9579	

Note: Models are multilevel linear, run in Zelig for R (Bailey and Alimadhi 2007). The dependent variable is the first-dimension ideal point for each state legislator. The omitted reference category for primary systems is "pure closed." *p<0.05, **p<0.01, ***p<0.001

Table A2. Explaining ideology with multilevel models and controlling for presidential vote, 1992-2008

	Democrats		Republicans	
	Coeff	St Err	Coeff	St Err
Semi-closed	-0.112***	0.029	0.156***	0.034
Semi-open	0.064	0.055	0.095#	0.047
Pure open	0.049	0.069	0.048	0.057
Non-partisan	-0.119*	0.049	0.101*	0.047
Presidential vote	-1.240***	0.030	-0.847***	0.045
Intercept	0.072	0.057	0.934***	0.053
Level 2 Random Effects				
State variance	0.080		0.085	
Year variance	0.006		0.001	
ρ	0.400		0.441	
-2*log likelihood	7202.958		5800.800	
N	8850		8951	

Note: Models are multilevel linear, run in Zelig for R (Bailey and Alimadhi 2007). The dependent variable is the first-dimension ideal point for each state legislator. The omitted reference category for primary systems is "pure closed." #p<0.10, *p<0.05, **p<0.01, ***p<0.001

Table A3. Explaining ideology, 1992-2008, with time trends

	DEMS		REPS	
	Coeff	St Err	Coeff	St Err
Semi-closed	-0.022	0.038	0.140***	0.038
Semi-open	-0.012	0.072	0.036	0.059
Pure open	0.078	0.116	-0.039	0.070
Non-partisan	-0.089	0.067	0.180**	0.057
Year	-0.052***	0.008	0.010	0.007
Year X Semi-closed	0.006	0.006	-0.001	0.005
Year X Semi-open	0.016**	0.006	0.003	0.005
Year X Open	0.019**	0.007	0.002	0.006
Year X Non-partisan	0.027*	0.011	-0.030*	0.011
Intercept	-0.669***	0.050	-0.042	0.047
(State & year fixed effects)				
Adjusted R^2	0.458		0.414	
Root MSE	0.375		0.320	
N	9377		9579	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R (Imai et al. 2007). The omitted reference category for primary systems is "pure closed." *p<0.05, **p<0.01, ***p<0.001

Table A4. Explaining ideology, 1992-2008, with presidential vote interactions

	DEMS		REPS	
	Coeff	St Err	Coeff	St Err
Semi-closed	-0.134***	0.030	0.177***	0.035
Semi-open	-0.001	0.067	0.081	0.056
Pure open	0.101	0.084	0.009	0.065
Non-partisan	-0.141**	0.053	0.117*	0.049
Presidential vote (PV)	-1.312***	0.056	-0.686***	0.082
PV X Semi-closed	0.468***	0.096	-0.414**	0.135
PV X Semi-open	0.095	0.074	-0.022	0.113
PV X Open	-0.216*	0.105	-0.386**	0.137
PV X Non-partisan	-0.077	0.114	-0.157	0.234
Intercept	-0.857***	0.035	0.115**	0.038
(State & year fixed effects)				
Adjusted R^2	0.529		0.441	
Root MSE	0.359		0.330	
N	8850		8951	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R (Imai et al. 2007). The omitted reference category for primary systems is "pure closed." *p<0.05, **p<0.01, ***p<0.001

Table A5. Explaining ideology among Democrats, 1992-2008, with presidential vote and nearest-neighbor matching

	Semi-Closed		Semi-Open		Pure Open		Nonpartisan	
	Coeff	St Err	Coeff	St Err	Coeff	St Err	Coeff	St Err
Primary System	-0.091**	0.030	-0.102	0.092	0.200***	0.040	-0.083	0.107
Matching distance	12.64	12.067	1.315	1.651	-1.124	2.019	-1.772	1.492
Presidential vote	-2.091*	0.924	-0.853	0.536	-1.778**	0.598	-1.783***	0.236
Intercept	-4.210	3.813	-1.096	1.341	0.479	0.947	0.345	0.257
(State & year fixed effects)								
Adjusted R^2	0.547		0.521		0.544		0.716	
Root MSE	0.334		0.378		0.342		0.350	
N	4266		4694		2796		888	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R with nearest-neighbor matching and all cases outside the "convex hull" omitted from the analysis (Ho et al. 2007, 2008; King and Zheng 2006; Stoll et al. 2005). The dependent variable is the first-dimension ideal point for each state legislator. The omitted reference category for primary systems is "pure closed." *p<0.05, **p<0.01, ***p<0.001

Table A6. Explaining ideology among Republicans, 1992-2008, with presidential vote and nearest-neighbor matching

	Semi-Closed		Semi-Open		Pure Open		Nonpartisan	
	Coeff	St Err	Coeff	St Err	Coeff	St Err	Coeff	St Err
Primary System	0.197***	0.040	-0.033	0.075	-0.003	0.055	-0.035	0.155
Matching distance	0.008	1.758	0.49	0.45	-0.081	2.652	-0.961	0.721
Presidential vote	-0.874	0.676	-0.298	0.485	-0.903	1.186	-1.137**	0.426
Intercept	0.498	0.605	-0.027	0.391	0.531	1.483	0.688	0.28
(State & year fixed effects)								
Adjusted R^2	0.477		0.470		0.443		0.547	
Root MSE	0.327		0.344		0.318		0.286	
N	3634		3844		3356		670	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R with nearest-neighbor matching and all cases outside the "convex hull" omitted from the analysis (Ho et al. 2007, 2008; King and Zheng 2006; Stoll et al. 2005). The dependent variable is the first-dimension ideal point for each state legislator. The omitted reference category for primary systems is "pure closed." *p<0.05, **p<0.01, ***p<0.001

Table A7. Effect of the *Jones* decision on Democratic ideology in blanket primary states, 1992-2008

	Alaska		California		Washington	
	Coeff	St Err	Coeff	St Err	Coeff	St Err
Post-*Jones* decision	0.193	0.190	-0.169*	0.070	0.103	0.104
Presidential vote	-1.625**	0.569	-1.145***	0.125	-2.204	0.187
Intercept	0.599	0.396	0.009	0.116	0.439	0.131
(State & year fixed effects)						
Adjusted R^2	0.205		0.622		0.470	
Root MSE	0.503		0.297		0.357	
N	158		482		332	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R with nearest-neighbor matching (on presidential vote and the primary system ultimately adopted) and with all cases outside the "convex hull" omitted from the analysis (Ho et al. 2007, 2008; King and Zheng 2006; Stoll et al. 2005). The dependent variable is the first-dimension ideal point for each state legislator. In the wake of the decision in *California Democratic Party v Jones*, Alaska adopted a semi-open system, California adopted a semi-closed system, and Washington adopted a classic open system. All three should have produced less moderation than the blanket primary. *p<0.05, **p<0.01, ***p<0.001

Table A8. Effect of the *Jones* decision on Republican ideology in blanket primary states, 1992-2008

	Alaska		California		Washington	
	Coeff	St Err	Coeff	St Err	Coeff	St Err
Post-*Jones* decision	-0.060	0.063	-0.089	0.099	-0.160	0.115
Presidential vote	-0.042	0.241	-1.858***	0.324	-1.431***	0.262
Intercept	0.123	0.203	1.484***	0.195	1.276***	0.155
(State & year fixed effects)						
Adjusted R^2	0.295		0.529		0.323	
Root MSE	0.233		0.358		0.316	
N	268		334		316	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R with nearest-neighbor matching (on presidential vote and the primary system ultimately adopted) and with all cases outside the "convex hull" omitted from the analysis (Ho et al. 2007, 2008; King and Zheng 2006; Stoll et al. 2005). The dependent variable is the first-dimension ideal point for each state legislator. In the wake of the decision in *California Democratic Party v Jones*, Alaska adopted a semi-open system, California adopted a semi-closed system, and Washington adopted a classic open system. All three should have produced less moderation than the blanket primary. *p<0.05, **p<0.01, ***p<0.001

Table A9. Comparison of full sample to subset with district presidential vote

	Closed (%)		Semi-Closed (%)		Semi-Open (%)		Open (%)		Nonpartisan (%)		Ideology (Mean)	
	Full	Subset	Full	Subset	Full	Subset	Full	Subset	Full	Subset	Full	Subset
Democrats												
1992	51	36	0	0	49	64	0	0	0	0	-0.53	-0.55
1994	33	35	19	20	31	28	13	14	4	3	-0.56	-0.65
1996	25	29	21	23	27	17	16	18	11	12	-0.46	-0.56
1998	21	23	24	25	30	24	16	17	9	10	-0.54	-0.65
2000	22	23	31	30	25	22	14	16	7	8	-0.64	-0.73
2002	14	14	33	28	33	36	18	20	2	2	-0.66	-0.66
2004	15	18	40	38	24	24	20	19	1	1	-0.66	-0.70
2006	31	31	22	18	27	28	11	15	9	7	-0.64	-0.71
2008	37	32	38	33	18	30	0	0	6	5	-0.84	-0.85
Republicans												
1992	63	48	0	0	37	52	0	0	0	0	0.88	0.92
1994	25	26	29	28	30	29	14	15	3	3	0.57	0.58
1996	22	22	18	17	26	23	28	30	7	7	0.62	0.67
1998	24	26	21	19	28	25	22	24	6	6	0.63	0.65
2000	19	19	27	26	29	28	19	21	6	6	0.65	0.69
2002	14	14	33	22	31	38	20	25	1	2	0.64	0.72
2004	14	15	45	44	26	26	16	15	0	0	0.75	0.78
2006	30	25	23	23	26	30	10	11	11	10	0.74	0.79
2008	39	34	39	34	17	27	0	0	5	4	0.62	0.81

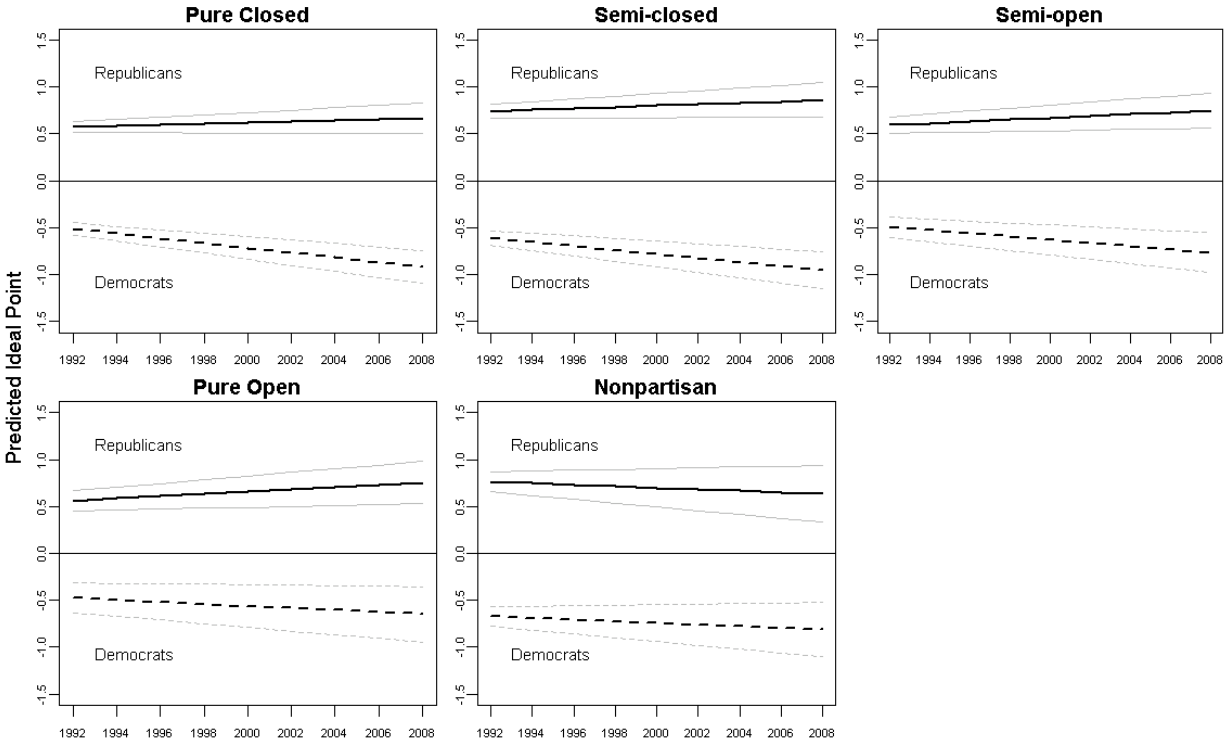
Note: The first ten columns of numbers compare the percentage of legislators in each type of primary system in the full data to the percentage in the subset where presidential vote by district is available. The numbers for each version of the data should sum to 100 across each row, with allowance for rounding. The final two columns indicate the average ideology of legislators in each version of the data.

ALTERNATIVE MODEL REFERENCED IN FOOTNOTE 7

Explaining ideology, 1992-2008, with time trends & presidential vote

	DEMS		REPS	
	Coeff	St Err	Coeff	St Err
Semi-closed	-0.095*	0.037	0.169***	0.040
Semi-open	0.018	0.067	0.021	0.056
Pure open	0.032	0.090	-0.011	0.067
Non-partisan	-0.162**	0.063	0.191**	0.060
Presidential vote	-1.239***	0.030	-0.845***	0.045
Year	-0.051***	0.007	0.012#	0.007
Year X Semi-closed	0.007	0.006	0.003	0.005
Year X Semi-open	0.017**	0.005	0.008	0.005
Year X Open	0.029***	0.006	0.012*	0.006
Year X Non-partisan	0.033**	0.011	-0.028*	0.011
Intercept	0.009	0.045	0.447	0.049
(State & year fixed effects)				
Adjusted R^2	0.530		0.441	
Root MSE	0.359		0.330	
N	8850		8951	

Note: Models are ordinary least squares with state and year fixed effects, run in Zelig for R (Imai et al. 2007). The omitted reference category for primary systems is "pure closed."
#p<0.10, *p<0.05, **p<0.01, ***p<0.001


Pure Closed
Semi-closed
Semi-open
Pure Open
Nonpartisan
Republicans
Democrats
Predicted Ideal Point
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
1992
1994
1996
1998
2000
2002
2004
2006
2008

ALTERNATIVE MODELS REFERENCED FOOTNOTE 9 OF THE TEXT

(Interaction term tests effect of open primary)

INTERACTION MODEL: ALASKA

DEMOCRATS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.378	0.084	-4.486	0.000	***
AK X After 2000	-0.096	0.173	-0.555	0.579	
AK Dummy	-0.225	0.115	-1.948	0.053	.
After 2000 Dummy	0.246	0.122	2.025	0.045	*
Adj R2	0.079				
RMSE	0.540				
N	158				

REPUBLICANS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.905	0.029	30.896	< 2e-16	***
AK X After 2000	-0.076	0.067	-1.131	0.259	
AK Dummy	-0.118	0.042	-2.797	0.006	**
After 2000 Dummy	0.021	0.048	0.437	0.663	
Adj R2	0.067				
RMSE	0.268				
N	268				

INTERACTION MODEL: CALIFORNIA

DEMOCRATS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.819	0.029	-28.160	< 2e-16	***
CA X After 2000	-0.245	0.071	-3.469	0.001	***
CA Dummy	-0.551	0.040	-13.820	< 2e-16	***
After 2000 Dummy	-0.060	0.048	-1.237	0.217	
Adj R2	0.444				
RMSE	0.360				
N	482				

REPUBLICANS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.479	0.053	9.065	< 2e-16	***
CA X After 2000	-0.120	0.104	-1.150	0.251	
CA Dummy	0.643	0.066	9.684	< 2e-16	***
After 2000 Dummy	0.215	0.070	3.089	0.002	**
Adj R2	0.286				
RMSE	0.445				
N	334				

INTERACTION MODEL: WASHINGTON

DEMOCRATS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.890	0.041	-21.606	<2e-16	***
WA X After 2002	-0.021	0.131	-0.160	0.873	
WA Dummy	-0.161	0.058	-2.772	0.006	**
After 2002 Dummy	0.231	0.092	2.506	0.013	*
Adj R2	0.053				
RMSE	0.475				
N	332				

REPUBLICANS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.577	0.030	19.259	< 2e-16	***
WA X After 2002	-0.156	0.116	-1.349	0.178	
WA Dummy	0.337	0.042	8.019	0.000	***
After 2002 Dummy	0.228	0.079	2.905	0.004	**
Adj R2	0.182				
RMSE	0.348				
N	316				

ALTERNATIVE MODELS REFERENCED ON PAGE 16 OF THE TEXT

ALL DATA (I.E., INCLUDING CASES WHERE DISTRICT PRESIDENTIAL VOTE IS NOT AVAILABLE)

FIXED-EFFECTS MODELS

OPEN (IN ANY WAY)

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.706	0.046	-15.210	< 2e-16	***
openall	-0.025	0.030	-0.840	0.402	
(State & year fixed effects)					
Adj R2	0.457				
RMSE	0.375				
N	9377				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.020	0.043	-0.470	0.636	
openall	0.104	0.032	3.280	0.001	**
(State & year fixed effects)					
Adj R2	0.413				
RMSE	0.32				
N	9579				

INDEPENDENTS VS. ALL VOTERS

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.698	0.044	-15.810	< 2e-16	***
indep	-0.026	0.031	-0.840	0.402	
all	0.172	0.063	2.720	0.007	**
(State & year fixed effects)					
Adj R2	0.457				
RMSE	0.375				
N	9377				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.066	0.040	-1.640	0.100	
indep	0.100	0.030	3.380	0.001	***
all	-0.096	0.097	-0.990	0.323	
(State & year fixed effects)					
Adj R2	0.413				
RMSE	0.32				
N	9579				

PUBLIC VS. PRIVATE

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.717	0.046	-15.530	< 2e-16	***
private	0.129	0.070	1.860	0.063	.
public	0.000	0.029	-0.020	0.987	
(State & year fixed effects)					
Adj R2	0.457				
RMSE	0.375				
N	9377				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.043	0.042	-1.020	0.309	
private	0.016	0.049	0.320	0.749	
public	0.093	0.029	3.210	0.001	**
(State & year fixed effects)					
Adj R2	0.413				
RMSE	0.32				
N	9579				

REGISTRATION REQUIREMENT

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.717	0.046	-15.540	< 2e-16	***
private	0.131	0.069	1.890	0.059	.
reg required	-0.196	0.078	-2.510	0.012	*
no reg required	0.001	0.029	0.030	0.975	
(State & year fixed effects)					
Adj R2	0.457				
RMSE	0.375				
N	9377				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.043	0.042	-1.020	0.309	
private	0.016	0.049	0.320	0.749	
reg required	0.552	0.037	14.930	< 2e-16	***
no reg required	0.093	0.029	3.210	0.001	**
(State & year fixed effects)					
Adj R2	0.413				
RMSE	0.32				
N	9579				

MULTILEVEL MODELS

OPEN (IN ANY WAY)

DEMS

	Coeff	St Err	t-stat	
(Intercept)	-0.544	0.059	-9.290	***
openall	-0.032	0.029	-1.120	

Group-level random effects

	Variance	St Err
icpsrst	0.110	0.331
yrcnt	0.007	0.083
Residual	0.141	0.375
Group proportion of var		0.453

REPS

	Coeff	St Err	t-stat	
(Intercept)	0.547	0.050	10.940	***
openall	0.116	0.029	4.020	***

Group-level random effects

	Variance	St Err
icpsrst	0.093	0.304
yrcnt	0.002	0.040
Residual	0.102	0.320
Group proportion of var		0.479

INDEPENDENTS VS. ALL VOTERS

DEMS

	Coeff	St Err	t-stat	
(Intercept)	-0.631	0.061	-10.390	***
indep	-0.037	0.030	-1.220	
all	0.150	0.053	2.860	**

Group-level random effects

	Variance	St Err
icpsrst	0.105	0.324
yrcnt	0.007	0.086
Residual	0.140	0.375
Group proportion of var		0.445

REPS

	Coeff	St Err	t-stat	
(Intercept)	0.575	0.057	10.030	***
indep	0.089	0.029	3.110	**
all	0.070	0.066	1.060	

Group-level random effects

	Variance	St Err
icpsrst	0.097	0.311
yrcnt	0.002	0.045
Residual	0.102	0.320
Group proportion of var		0.491

PUBLIC VS. PRIVATE

DEMS

	Coeff	St Err	t-stat	
(Intercept)	-0.579	0.059	-9.760	***
private	0.079	0.062	1.280	
public	-0.002	0.028	-0.080	

Group-level random effects

	Variance	St Err
icpsrst	0.114	0.338
yrcnt	0.007	0.084
Residual	0.141	0.375
Group proportion of var		0.463

REPS

	Coeff	St Err	t-stat	
(Intercept)	0.578	0.050	11.540	***
private	0.007	0.045	0.150	
public	0.098	0.028	3.560	***

Group-level random effects

	Variance	St Err
icpsrst	0.094	0.307
yrcnt	0.002	0.041
Residual	0.102	0.320
Group proportion of var		0.483

REGISTRATION REQUIREMENT

DEMS

	Coeff	St Err	t-stat	
(Intercept)	-0.555	0.060	-9.210	***
private	0.071	0.062	1.160	
reg required	-0.179	0.068	-2.650	**
no reg required	0.004	0.028	0.140	

Group-level random effects

	Variance	St Err
icpsrst	0.109	0.331
yrcnt	0.008	0.090
Residual	0.140	0.375
Group proportion of var		0.455

REPS

	Coeff	St Err	t-stat	
(Intercept)	0.618	0.052	11.990	***
private	0.005	0.045	0.110	
reg required	-0.155	0.115	-1.340	
no reg required	0.105	0.028	3.780	***

Group-level random effects

	Variance	St Err
icpsrst	0.086	0.294
yrcnt	0.002	0.041
Residual	0.102	0.320
Group proportion of var		0.462

PRESIDENTIAL VOTE DATA

FIXED-EFFECT MODELS, NO PRESIDENTIAL VOTE CONTROL

OPEN (IN ANY WAY)

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.821	0.042	-19.472	< 2e-16	***
openall	-0.071	0.031	-2.306	0.021	*
(State & year fixed effects)					
Adj R2	0.436				
RMSE	0.392				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.021	0.041	0.511	0.610	
openall	0.142	0.032	4.456	0.000	***
(State & year fixed effects)					
Adj R2	0.418				
RMSE	0.336				
N	8951				

INDEPENDENTS VS. ALL VOTERS

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.805	0.041	-19.675	< 2e-16	***
indep	-0.077	0.032	-2.398	0.016	*
all	0.266	0.059	4.497	0.000	***
(State & year fixed effects)					
Adj R2	0.438				
RMSE	0.392				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.024	0.039	-0.616	0.538	
indep	0.154	0.032	4.786	0.000	***
all	-0.001	0.083	-0.018	0.986	
(State & year fixed effects)					
Adj R2	0.418				
RMSE	0.336				
N	8951				

PUBLIC VS. PRIVATE

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.828	0.042	-19.801	< 2e-16	***
private	0.192	0.060	3.208	0.001	**
public	-0.033	0.030	-1.114	0.265	
(State & year fixed effects)					
Adj R2	0.437				
RMSE	0.392				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.00807	0.040631	-0.199	0.842524	
private	0.07106	0.048304	1.471	0.141299	
public	0.145682	0.030906	4.714	2.47E-06	***
(State & year fixed effects)					
Adj R2	0.418				
RMSE	0.336				
N	8951				

REGISTRATION REQUIREMENT

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.829	0.042	-19.836	< 2e-16	***
private	0.195	0.060	3.262	0.001	**
reg required	-0.240	0.083	-2.907	0.004	**
no reg required	-0.032	0.030	-1.075	0.283	
(State & year fixed effects)					
Adj R2	0.437				
RMSE	0.392				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.008	0.041	-0.199	0.843	
private	0.071	0.048	1.471	0.141	
reg required	0.654	0.039	16.683	< 2e-16	***
no reg required	0.146	0.031	4.714	0.000	***
(State & year fixed effects)					
Adj R2	0.418				
RMSE	0.336				
N	8951				

FIXED-EFFECT MODELS, WITH PRESIDENTIAL VOTE CONTROLLED

OPEN (IN ANY WAY)

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.051	0.043	-1.201	0.230	
openall	-0.091	0.028	-3.227	0.001	**
pvote	-1.233	0.030	-41.362	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.528				
RMSE	0.359				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.451	0.047	9.693	< 2e-16	***
openall	0.120	0.031	3.817	0.000	***
pvote	-0.836	0.045	-18.564	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.440				
RMSE	0.330				
N	8951				

OPEN (IN ANY WAY)

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.051	0.043	-1.201	0.230	
openall	-0.091	0.028	-3.227	0.001	**
pvote	-1.233	0.030	-41.362	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.528				
RMSE	0.359				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.451	0.047	9.693	< 2e-16	***
openall	0.120	0.031	3.817	0.000	***
pvote	-0.836	0.045	-18.564	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.440				
RMSE	0.330				
N	8951				

INDEPENDENTS VS. ALL VOTERS

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.032	0.042	-0.756	0.450	
indep	-0.093	0.029	-3.177	0.001	**
all	0.266	0.054	4.920	0.000	***
pvote	-1.232	0.030	-41.410	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.529				
RMSE	0.358				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.415	0.045	9.186	< 2e-16	***
indep	0.136	0.032	4.297	0.000	***
all	-0.041	0.081	-0.502	0.616	
pvote	-0.838	0.045	-18.595	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.440				
RMSE	0.330				
N	8951				

PUBLIC VS. PRIVATE

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.052	0.043	-1.210	0.226	
private	0.156	0.055	2.853	0.004	**
public	-0.042	0.027	-1.541	0.123	
pvote	-1.230	0.030	-41.276	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.528				
RMSE	0.359				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.426	0.046	9.210	< 2e-16	***
private	0.063	0.047	1.323	0.186	
public	0.122	0.030	4.035	0.000	***
pvote	-0.835	0.045	-18.540	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.440				
RMSE	0.330				
N	8951				

REGISTRATION REQUIREMENT

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.053	0.043	-1.244	0.214	
private	0.159	0.055	2.907	0.004	**
reg required	-0.230	0.076	-3.040	0.002	**
no reg required	-0.041	0.027	-1.501	0.133	
pvote	-1.229	0.030	-41.272	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.529				
RMSE	0.359				
N	8850				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.426	0.046	9.210	< 2e-16	***
private	0.063	0.047	1.323	0.186	
reg required	0.436	0.040	10.842	< 2e-16	***
no reg required	0.122	0.030	4.035	0.000	***
pvote	-0.835	0.045	-18.540	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.440				
RMSE	0.330				
N	8951				

MULTILEVEL MODEL, WITH PRESIDENTIAL VOTE CONTROLLED

OPEN (IN ANY WAY)

DEMS

	Coeff	St Err	t-stat	
(Intercept)	0.135	0.054	2.51	*
openall	-0.091	0.027	-3.4	***
pvote	-1.240	0.030	-41.68	***

Group-level random effects

	Variance	St Err
icpsrst	0.082	0.287
yrcnt	0.005	0.070
Residual	0.129	0.359
Group proportion of var		0.404

-2*log likelihood	7236.000
N	8850

REPS

	Coeff	St Err	t-stat	
(Intercept)	0.917	0.051	17.87	***
openall	0.128	0.029	4.46	***
pvote	-0.849	0.045	-18.92	***

Group-level random effects

icpsrst	0.080	0.283
yrcnt	0.001	0.037
Residual	0.109	0.330
Group proportion of var		0.427

-2*log likelihood	5818.000
N	8951

INDEPENDENTS VS. ALL VOTERS

DEMS

	Coeff	St Err	t-stat	
(Intercept)	-0.004	0.057	-0.08	
indep	-0.094	0.029	-3.28	***
all	0.196	0.046	4.25	***
pvote	-1.237	0.030	-41.65	***

Group-level random effects

	Variance	St Err
icpsrst	0.087	0.29443
yrcnt	0.006	0.07529
Residual	0.128	0.35839
Group proportion of var		0.418

-2*log likelihood	7220.000
N	8850

REPS

	Coeff	St Err	t-stat	
(Intercept)	0.953	0.057	16.732	***
indep	0.123	0.030	4.046	***
all	0.060	0.059	1.014	
pvote	-0.850	0.045	-18.936	***

Group-level random effects

icpsrst	0.085	0.292
yrcnt	0.002	0.043
Residual	0.109	0.330
Group proportion of var		0.444

-2*log likelihood	5824.000
N	8951

PUBLIC VS. PRIVATE

DEMS

	Coeff	St Err	t-stat	
(Intercept)	0.070	0.056	1.27	
private	0.102	0.050	2.04	*
public	-0.040	0.026	-1.52	
pvote	-1.236	0.030	-41.57	***

Group-level random effects

	Variance	St Err
icpsrst	0.090	0.301
yrcnt	0.005	0.072
Residual	0.129	0.359
Group proportion of var		0.426

-2*log likelihood	7244.000
N	8850

REPS

	Coeff	St Err	t-stat	
(Intercept)	0.936	0.052	18.126	***
private	0.053	0.044	1.213	
public	0.123	0.029	4.275	***
pvote	-0.848	0.045	-18.895	***

Group-level random effects

icpsrst	0.082	0.286274
yrcnt	0.002	0.039932
Residual	0.109	0.330112
Group proportion of var		0.434

-2*log likelihood	5824.000
N	8951

REGISTRATION REQUIREMENT

DEMS

	Coeff	St Err	t-stat	
(Intercept)	0.090	0.057	1.590	
private	0.100	0.050	2.000	*
reg required	-0.184	0.065	-2.840	***
no reg required	-0.035	0.026	-1.32	
pvote	-1.236	0.030	-41.57	***

Group-level random effects

	Variance	St Err
icpsrst	0.090	0.300
yrcnt	0.006	0.077
Residual	0.129	0.359
Group proportion of var		0.427

-2*log likelihood	7242.000
N	8850

REPS

	Coeff	St Err	t-stat	
(Intercept)	0.966	0.053	18.056	***
private	0.052	0.044	1.189	
reg required	-0.065	0.111	-0.592	
no reg required	0.129	0.029	4.454	***
pvote	-0.847	0.045	-18.87	***

Group-level random effects

icpsrst	0.078	0.280
yrcnt	0.002	0.040
Residual	0.109	0.330
Group proportion of var		0.423

-2*log likelihood	5824.000
N	8951

MATCHING ON PRESIDENTIAL VOTE

OPEN (IN ANY WAY)

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.689	0.635	1.085	0.278	
openall	-0.089	0.037	-2.375	0.018	*
distance	-1.011	0.876	-1.154	0.248	
pvote	-1.413	0.149	-9.491	< 2e-16	***
(State & year fixed effects)					
Adj R2	0.581				
RMSE	0.344				
N	4722				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.362	0.426	0.85	0.395	
openall	0.242	0.044	5.553	0.000	***
distance	0.288	0.689	0.418	0.676	
pvote	-0.756	0.228	-3.314	0.001	***
(State & year fixed effects)					
Adj R2	0.502				
RMSE	0.319				
N	3874				

INDEPENDENTS ONLY

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-4.209	3.813	-1.104	0.270	
indep	-0.091	0.030	-2.981	0.003	**
distance	12.635	12.067	1.047	0.295	
pvote	-2.091	0.924	-2.264	0.024	*
(State & year fixed effects)					
Adj R2	0.547				
RMSE	0.334				
N	4266				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.498	0.605	0.824	0.410	
indep	0.197	0.040	4.924	0.000	***
distance	0.008	1.758	0.005	0.996	
pvote	-0.874	0.676	-1.292	0.197	
(State & year fixed effects)					
Adj R2	0.477				
RMSE	0.327				
N	3634				

ALL VOTERS

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.740	0.689	1.073	0.283	
all	0.216	0.051	4.201	0.000	***
distance	-0.871	0.727	-1.197	0.231	
pvote	-1.578	0.250	-6.316	0.000	***
(State & year fixed effects)					
Adj R2	0.537				
RMSE	0.370				
N	4630				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.089	0.364	0.244	0.807	
all	-0.008	0.194	-0.044	0.965	
distance	0.229	0.339	0.675	0.500	
pvote	-0.645	0.276	-2.332	0.020	*
(State & year fixed effects)					
Adj R2	0.477				
RMSE	0.331				
N	3772				

PRIVATE

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.453	0.866	0.523	0.601	
private	0.207	0.040	5.184	0.000	***
distance	-0.695	1.570	-0.443	0.658	
pvote	-1.699	0.566	-3.000	0.003	**
(State & year fixed effects)					
Adj R2	0.547				
RMSE	0.339				
N	2834				

REPS

	Coeff	St Err	t-stat	p-value
(Intercept)	0.961	1.464	0.656	0.512
private	-0.009	0.056	-0.169	0.866
distance	-0.732	1.918	-0.382	0.703
pvote	-1.274	1.092	-1.167	0.243
(State & year fixed effects)				
Adj R2	0.435			
RMSE	0.321			
N	3390			

PUBLIC

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.094	0.882	-0.106	0.915	
public	-0.036	0.032	-1.102	0.271	
distance	0.206	1.218	0.169	0.866	
pvote	-1.192	0.196	-6.074	0.000	***
(State & year fixed effects)					
Adj R2	0.581				
RMSE	0.345				
N	4714				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.278	0.516	-0.54	0.589	
public	0.286	0.045	6.388	0.000	***
distance	1.350	0.814	1.659	0.097	.
pvote	-0.383	0.296	-1.294	0.196	
(State & year fixed effects)					
Adj R2	0.479				
RMSE	0.337				
N	3868				

REGISTRATION REQUIREMENT

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-5.819	2.037	-2.856	0.004	**
reg required	0.285	0.059	4.795	0.000	***
distance	12.439	4.495	2.768	0.006	**
pvote	1.205	0.870	1.385	0.166	
(State & year fixed effects)					
Adj R2	0.462				
RMSE	0.364				
N	3432				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.970	0.807	1.202	0.229	
reg required	0.338	0.052	6.554	0.000	***
distance	-1.479	2.398	-0.617	0.538	
pvote	-0.263	0.909	-0.289	0.772	
(State & year fixed effects)					
Adj R2	0.435				
RMSE	0.325				
N	3654				

NO REGISTRATION REQUIREMENT

DEMS

	Coeff	St Err	t-stat	p-value	
(Intercept)	-0.832	1.601	-0.519	0.603	
no reg required	-0.099	0.031	-3.231	0.001	**
distance	1.122	2.219	0.506	0.613	
pvote	-1.078	0.347	-3.111	0.002	**
(State & year fixed effects)					
Adj R2	0.582				
RMSE	0.358				
N	4700				

REPS

	Coeff	St Err	t-stat	p-value	
(Intercept)	0.128	0.339	0.377	0.706	
no reg required	0.197	0.037	5.319	0.000	***
distance	0.399	0.396	1.008	0.314	
pvote	-0.361	0.404	-0.895	0.371	
(State & year fixed effects)					
Adj R2	0.511				
RMSE	0.320				
N	3842				