Nomination Rules and the Calculus of Mobilization: Theory and Evidence from Mexico*

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Abstract

Does party organization shape candidates' electoral mobilization efforts? I develop a novel theoretical account linking candidate selection rules to electoral mobilization. Nomination rules that require aspiring candidates to compete in electoral races, such as primary elections, create incentives for them to make considerable investments in order to win the party's nomination. Using a decision-theoretic model, I show how these initial investments at the nomination stage shape the candidates' mobilization expenditures in the general election. The main theoretical result establishes that primaries increase candidates' mobilization efforts only when the general election is not expected to be competitive; when a close race is expected, candidates mobilize at the same rates regardless of how they were nominated. Analysis of an original dataset on candidate selection and electoral mobilization in Mexico provides strong support for the theory.

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How do parties mobilize voter support? An extensive literature in comparative and American politics has studied the strategic role of parties, candidates, and, more generally, political elites in mobilizing voters and activists (e.g., Morton, 1987, 1991; Uhlaner, 1989; Aldrich, 1993). Following insights first advanced by Key (1949), a central argument in these works is that the elites should invest more resources, or exert greater efforts, when the likelihood that their involvement decides the election is greater. For this reason, following a similar logic to calculus-of-voting models (e.g., Downs, 1957; Riker and Ordeshook, 1968), the elites' mobilization efforts are expected to increase in closer races (e.g., Cox and Munger, 1989; Matsusaka, 1993; Shachar and Nalebuff, 1999).

A strand of this literature has focused on how different political institutions shape the elites' calculus of whether to engage in costly mobilization. Scholars have linked mobilization levels to the degree of proportionality of the electoral system (e.g., Cox, 1999), the use of runoff elections (e.g., Fauvelle-Aymar and François, 2016), the electoral calendar and the presence of concurrent elections (e.g., Fukumoto and Horiuchi, 2016), and even term limits (e.g., Veiga and Veiga, 2018). Absent from this literature, however, is research on how candidate selection rules might shape the elites' mobilizational efforts. This absence is surprising because these rules could affect a number of factors related to the candidates' campaigning effectiveness, such as their ability to raise campaign funds, or even the decision to seek the nomination in the first place.

This paper fills this gap by presenting a novel theoretical account linking nomination rules to electoral mobilization. The theory has two building blocks. First, in order to engage in electoral mobilization, a candidate must pay the initial costs of building an electoral machine, or campaign organization, that will actually execute the tasks that mobilization requires. That is, access to resources is not enough to mobilize voters; effective mobilization requires an organized group of people who can channel and use those resources. Second, certain nomination rules—in particular primary elections—create incentives for aspirants to office to make sizable investments in order to obtain a party's ticket. Consequently, many aspirants pay the costs of building an electoral machine during the primary campaign, when it is unclear whether they will run in the general election.

I incorporate these two realistic features of electoral politics into a decision-theoretic model to analyze how nomination rules affect the candidates' general-election mobilization efforts. The main result is that candidates selected in primaries mobilize at higher rates than those nominated through other rules, but only in races that are *not* expected to be close. The reason for this is that, when deciding whether to engage in mobilization, candidates nominated in primaries do not need to take into account the costs of building an electoral machine, since they already have one in place. In contrast, other candidates decide whether to build the machine based on the expected competitiveness of the general election and, as traditional models would predict, they are more likely to do so in close races. Therefore, in non-competitive races, primary-nominated candidates will put their preexisting electoral machines to work, while other candidates will exert no effort.

The empirical validity of the theory is assessed using an original dataset on candidate selection in Mexico, a country where electoral mobilization is characterized by clientelistic exchanges and machine politics (e.g., Díaz-Cayeros, Estévez and Magaloni, 2016; Cantú, Forthcoming). A challenge for studying mobilization in this type of setting is that the tactics used, which range from hiring buses and taxis to drive supporters to the polls to handing gifts and cash in exchange for turning out, are often illegal and thus hard to observe. I circumvent this challenge by taking advantage of a feature of the Mexican electoral law—described in more detail next—that allows me to indirectly measure the mobilization expenditures of *each* candidate.

In Mexico, as in many other countries, political parties are allowed to send representatives to the polling stations on election day. Although, on paper, the main duty of these actors is to prevent electoral irregularities, recent research has also documented the key role representatives play in candidates' mobilization strategies (Larreguy, Marshall and Querubín, 2016; Ascencio and Rueda, Forthcoming). Party representatives work hand in hand with brokers and other party operatives, and often use their privileged position at the polls to help in the enforcement of vote- and, particularly, turnout-buying transactions. Candidates invest hefty sums of money to guarantee that the polling stations will be covered, and thus the degree to which candidates are able to have representatives at the polls on election day provides information about their mobilization expenditures.

Using the presence of party representatives at the polls as a measure of electoral mobilization has several advantages over other popular alternatives. First, the theory presented here establishes a connection between a party's nomination rules and that party's mobilization efforts. A proper empirical assessment of the theory, then, requires a party-specific measure of mobilization, unlike turnout, which despite being commonly used in the literature (e.g., Matsusaka, 1993; Rainey, 2015), only captures aggregate mobilization levels. Furthermore, in contrast to other party-specific measures, such as campaign-finance figures, the presence of representatives is easily verifiable and the incentives to misreport, if any, are minimal.

The analysis focuses on two of the major political parties in the country, the *Partido Acción Nacional* (PAN) and the *Partido de la Revolución Democrática* (PRD), both of which have consistently experimented with different candidate selection procedures. In each of the three federal elections during 2003-2009, a subset of these parties' legislative candidates were nominated in primaries, while the remaining ones were appointed by their party leaders. I exploit this rich variation, not only *within* each political party but also *within* each election, to analyze whether the use of different nomination rules shapes the candidates' incentives to spend resources in electoral-mobilization activities.

My empirical analysis reveals a strong positive association between the use of primaries by a political party and that party's mobilization efforts in patterns that are consistent with the model. In districts where a party expects a non-competitive race, candidates nominated in primaries have higher party-representative coverage at the polls than handpicked candidates. In contrast, in areas where a party expects a close race all candidates have similar coverage levels regardless of nomination rules. I present suggestive evidence that these patterns are not driven by selection effects. In particular, I exploit an unexpected intervention by the Mexican electoral tribunal to conduct a placebo test. This intervention modified the nomination rules the PAN intended to use in 2012, which led this party to nominate practically all of its candidates through the same method. The test shows that the *intention* to use primaries is not associated with the measure of mobilization, reducing the concern that the findings reported here are driven by confounding factors.

Although the previous discussion has centered on the study of mobilization, this paper also has important implications for the study of candidate selection. Recent comparative politics research pays substantial attention to the effects of nomination rules on a number of outcomes, including electoral results (e.g., Ichino and Nathan, 2013), as well as the candidates' ideological positions (e.g., Gerber and Morton, 1998; Bruhn, 2013), professional backgrounds (e.g., Langston, 2006; Smith and Tsutsumi, 2016), and even their behavior in office (e.g., Hix, 2004). This study shows that nomination rules not only affect the type of candidates that are nominated but also their behavior during campaigns. Moreover, to the extent that the candidates' mobilization strategies are effective, this paper advances a mechanism by which primaries can affect election outcomes that has been overlooked by existing works.

This paper also contributes to an ongoing debate on the relationship between primary elections and political participation. On the one hand, a number of works examine what the American politics literature calls the "divisive primary" hypothesis, according to which hotly contested primaries can hurt a party's electoral prospects by making supporters of losing primary candidates less likely to participate in the general election (e.g., Hacker, 1965; Kenney and Rice, 1987; Lengle, Owen and Sonner, 1995). On the other hand, many comparative politics scholars argue that primaries—and internal party democracy, more generally—can boost party membership and activism by strengthening the party activists' sense of involvement as well as their incentives to engage in campaigns (e.g., Scarrow, 2000; Pennings and Hazan, 2001; Wauters, 2010). In contrast to both sets of works, which emphasize the way in which nomination rules affect the *citizens'* incentives to participate in campaigns, the theory presented here sheds light on how these rules shape the *politicians'* calculations to strategically mobilize the electorate. The elite-driven mechanism I propose might help explain why some research that uses aggregate electoral results fails to find evidence of primary divisiveness (e.g., Atkeson, 1998) even when the theorized mechanisms of this hypothesis seem to hold at the individual level (e.g., Stone, 1984; Southwell, 1986).

This paper is most closely related to Kernell (2015), who empirically studies how nomination rules affect participation in general-election races. Using data from advanced Western democ-

racies, she finds that supporters of parties that use inclusive rules, "are significantly less likely to participate in election campaigns" (2015, 27) than those of parties that use more exclusionary rules. Two important differences between our works stand out. First, as already mentioned, the theory I advance is elite-driven, whereas Kernell's goal is to adjudicate between the citizen-driven accounts discussed above. Empirically, this work focuses on Mexico, a case with a rich variation in the use of nomination rules across electoral districts within each political party, and where electoral competition has a strong clientelistic component. This complements Kernell's work, who uses cross-national data from a region in which electoral politics are mostly programmatic.

A Model of Electoral Mobilization

I develop a decision-theoretic model of electoral mobilization to show how different candidate selection rules affect a candidate's mobilization efforts. These rules are often classified along a continuum depending on the level of inclusiveness of the *selectorate*, i.e., the body in charge of selecting the party's candidates (e.g., Hazan and Rahat, 2010; Kernell, 2015). However, for purposes of this analysis, I classify them on a different basis. The argument presented below rests upon the fact that some nomination rules require candidates to compete in electoral races, leading ambitious officeseekers to make considerable investments in order to be nominated. I argue that these investments at the nomination stage shape the candidates' mobilization efforts at the general-election stage. Because the mechanism at work is the link between electoral competition and these initial investments, I make a starker distinction and classify candidate selection rules into two categories, depending on whether they involve competition in an electoral race or not.

Even though the focus of this section is on the influence of nomination rules, I begin by laying out the setup of a model of electoral mobilization in a general-election race. After introducing the main result, and discussing how it relates to existing theories, I use the model to characterize the mobilization choices of candidates nominated through different rules.

Setup

Consider the problem of a general election candidate who must decide whether to engage in costly electoral mobilization. I depart from existing models (e.g., Cox, 1999; Rainey, 2015) by assuming that mobilization is possible only after the candidate has invested resources into building an organization that will execute the tasks that effective mobilization involves. In practice, this team could include professional staff, party operatives, brokers, activists, and volunteers. Throughout, I refer to this organization as the *electoral machine*. Thus, the candidate's problem consists of two parts. First, she must take an action $a \in \{0,1\}$ and decide whether to build an electoral machine ($a = 1$) or not ($a = 0$). Building the machine entails a one-time sunk cost $k > 0$. Following this decision, she chooses an amount of resources to spend for the purpose of electoral mobilization $s \geq 0$.

The candidate's payoffs are as follows. First, I consider a function $u : \mathbb{R}_+ \to \mathbb{R}$ that maps from the officeseeker's spending choices to her payoffs. I assume that u is single-peaked in s. This assumption is meant to capture two important features: (1) campaign spending has decreasing marginal returns, and (2) raising campaign funds is costly.[1] Let s^* be the maximizer of u. The candidate builds the machine and spends s^* only if the following condition holds

$$u(s^*) - k > u(0). \tag{1}$$

In this setting, it is important to differentiate the candidate's *optimal spending* s^*, which is the amount the candidate would invest if she did not have to pay the costs of building the electoral machine, from the candidate's actual spending choice, which I call *observed spending* and denote by $\bar{s}$. These two spending levels need not be the same. Indeed, if Equation 1 does not hold, the

[1] This is analogous to assuming that there is a probability of winning function p that is increasing in s, and a cost of raising funds function c that is convex. In this alternative setup, if winning the election results in benefit $\beta > 0$, then the payoff from building the electoral machine at fixed cost k and spending s is: $\beta p(s) - c(s) - k$. Notice that, given that c is convex, under reasonable assumptions about the shape of p, the officeseeker's payoffs will be single-peaked in s.

candidate's observed spending is zero even if her optimal spending is strictly positive, that is, we observe $\bar{s} = 0$ even though $s^* > 0$. In this simple framework, a solution to the candidate's problem takes one of two forms. She either builds the electoral machine ($a = 1$) and invests her optimal spending ($\bar{s} = s^*$), or does not build the machine ($a = 0$) and spends no resources at all ($\bar{s} = 0$).[2]

Next, in order to explore how the expected competitiveness of the race affects the candidate's decision, I parametrize the utility function by the candidate's *expected* margin of victory, denoted by m. Thus, a candidate who spends s in a race with expected margin $m \in [-1, 1]$ gets a payoff of $u(s, m)$. The expected margin of victory has a natural interpretation. As m approaches -1, the candidate expects her opponent to get all the vote and as m gets closer to 1 the candidate expects to get all the vote herself. Intermediate values of m indicate a close race is expected, with $m = 0$ being the closest possible race.

I make the following assumptions about the way in which the margin shapes the candidate's payoffs. First, I assume u is increasing in m for any s. In words, this assumption guarantees that for a fixed amount of resources s, the candidate receives a higher (lower) payoff as her expected margin of victory increases (decreases). Intuitively, if we could observe the candidate investing the same amount of resources into two races with different margins, this assumption tells us that the candidate would receive a higher payoff from the race with the larger expected margin victory.

Second, I assume that, for all s, the derivative of u with respect to s, denoted $u_s(s, m)$, is single-peaked in m with a peak at $m = 0$. In words, this simply states that the *marginal impact* of spending is largest in races that are expected to be more competitive, in particular those with expected margin $m = 0$, and decreases as the race is expected to be less competitive. This assumption is well in line with the literature on electoral mobilization, which predicts that the elites should exert greater mobilization efforts in close elections because it is in these races that their investments have the largest influence (e.g., Aldrich, 1993; Rosenstone and Hansen, 1993; Cox, 1999).

[2]Notice that conditional on the candidate building the machine, it must be that $\bar{s} = s^* > 0$, since the candidate would not build the machine if her optimal spending s^* is zero.

Analysis

When making her decision, the candidate compares her payoff when she does not spend any resources with her payoff from building the machine and investing her optimal spending level $s^*(m)$. To make this comparison more systematic, it is useful to define function $\gamma\colon [-1,1] \to \mathbb{R}$, that maps from the candidate's expected margin to her *change* in utility from optimally spending in electoral mobilization. I refer to γ as the *gains from optimal spending* function, and define it as

$$\gamma(m) = u(s^*(m), m) - u(0, m).$$

Therefore, $\gamma(m)$ are the gains from optimal spending in a race with expected margin m; in other words, this term represents the shift in utility that the candidate competing in a race with expected margin m receives when she invests her optimal amount $s^*(m)$ relative to spending no resources. The candidate's behavior is guided by comparing her gains from optimal spending, $\gamma(m)$, to the cost of building the electoral machine, k. When the gains exceed the cost, the candidate builds the electoral machine and her observed spending is $\bar{s}(m) = s^*(m)$. Otherwise, she does not build the machine and her observed spending is $\bar{s}(m) = 0$.

Existing works assume that the gains from optimal spending are large in close elections (i.e., m is near zero), but as elections are expected to be less competitive (i.e., $|m|$ is larger), the gains from spending go down until they disappear, making it optimal for candidates running in non-competitive races to spend no resources. In the current model, too, the gains from optimal spending are largest when m is zero and monotonically decrease as m changes in either direction.[3] At the same time, given that I incorporate the cost of building the machine k, the current framework allows for the possibility of positive spending only in races expected to be competitive even if the gains from optimal spending are strictly positive for all expected levels of competitiveness, i.e., even if $\gamma(m) > 0$ for all m. The next result states this formally.

[3] See Lemma 2 in the Appendix.

Proposition 1. *Suppose the gains from optimal spending, $\gamma(m)$, are strictly positive for all expected margins of victory, m. The cost of building the electoral machine, k, can be classified into high and low in such a way that:*

(1) If the cost is high, the candidate does not build the machine and her observed spending, $\bar{s}(m)$, is equal to zero regardless of her expected margin of victory, m.

(2) If the cost is low, the candidate builds the machine and her observed spending, $\bar{s}(m)$, is equal to her optimal spending level $s^*(m) > 0$ if she expects the race to be sufficiently competitive, that is, if $m \in (\underline{m}, \overline{m})$. Otherwise, the candidate does not build the machine and her observed spending, $\bar{s}(m)$, is equal to zero.

where $\underline{m} < 0$ and $\overline{m} > 0$ are as defined in the Appendix.

All proofs are in the Appendix. The intuition for Proposition 1 is as follows. Because we assume that the gains from optimal spending are positive for all values of m, the candidate's choices are completely determined by the cost of building the machine, k. Case (1) is trivial. If the cost k is high, as in (1), the candidate does not build the electoral machine and her observed spending $\bar{s}(m)$ equals zero regardless of her expected margin. Similarly, (2) allows for some trivial cases. If the cost k is sufficiently low, the candidate builds the electoral machine and her observed spending equals $s^*(m) > 0$ regardless of her expected margin.[4] Substantively, the only relevant case is (2), excluding the trivial scenario just described. This is so because only when the costs of building the machine are in that range does the expected margin of victory influence the candidate's decision. Therefore, the rest of the results presented in this paper assume that the cost of building the electoral machine k falls in this substantively relevant range.[5]

As mentioned before, it can be shown that the gains from optimal spending function is single-peaked in m and attains its maximum at $m = 0$. Thus, the candidate builds the machine and invests her optimal spending $s^*(m) > 0$ only when the margin m is sufficiently close to zero. Otherwise,

[4] In terms of Proposition 1, when k is sufficiently low, then $(\underline{m}, \overline{m}) = (-1, 1)$.

[5] More formally, the remaining of the paper assumes that $\max\{\gamma(-1), \gamma(1)\} < k < \gamma(0)$.

she does not build the machine and spends no resources. This result should not be surprising; it is, in essence, a restatement of the main prediction of the mobilization literature, according to which candidates' efforts should be greater in close races (e.g., Aldrich, 1993; Cox, 1999). That said, it should be highlighted that the mechanism driving Proposition 1 is substantively different from previous works. In this setting, the candidate would always be willing to invest a positive amount of resources if she did not have to pay the cost of building the machine. The next section shows how this mechanism shapes the relationship between mobilization and nomination rules.

Mobilization Under Alternative Nomination Rules

As mentioned at the beginning of this section, I categorize nomination rules into two groups, depending on whether they involve competition in an electoral race or not. To facilitate the discussion, I refer to these sets of rules as *primaries* and *appointments*, respectively. The central piece, or key assumption, of my argument is that candidates nominated in primaries are more likely to reach the general-election stage with an electoral machine in place than appointed candidates.

There are three mechanisms by which primaries might lead to the nomination of candidates who have a machine in place by the time they receive the party's ticket. The first is *electoral competition*. Since primary aspirants face a decision analogous to the one described above, candidates who ran in competitive primary races are likely to have built a machine in order to compete for the nomination. Intuitively, there should be more intraparty competition, and thus more candidates with an electoral machine, in places where a party is more likely to win the general election. Winning a nomination in a competitive primary, then, should be sufficient for the electoral-machine assumption to hold but it is most certainly not necessary, as the next two mechanisms show.

Building an electoral machine can also be part of an *entry deterrence* strategy. That is, an aspirant might invest into assembling a machine not expecting to use it in the primary but rather to deter others from entering the primary in the first place. Two things should be noted about this mechanism. First, if the value of the party's ticket is high, an aspirant building a machine would probably not stop other aspirants from entering the race. Therefore, this mechanism should play

a larger role as a party's electoral strength decreases. Second, an aspirant who successfully deters potential rivals will win the nomination in an uncontested primary. Thus, the use of primaries can result in the nomination of a candidate with an electoral machine even when (1) the primary is not contested, let alone competitive, and (2) the party is electorally weak.

Finally, there is also a *selection* mechanism, meaning that politicians who enter primaries, and eventually become candidates, might be systematically different from those nominated through other methods (Siavelis and Morgenstern, 2008; Hazan and Rahat, 2010). In particular, people who already have an electoral machine or similar structures in place (e.g., unions, neighborhood associations), should face lower costs of entering primaries than other aspirants. Indeed, parties might choose different nomination rules in an attempt to recruit candidates with specific assets. These claims are consistent with a small empirical literature that shows that the use of more inclusive nomination rules affects the composition of the pool of candidates (Bruhn, 2013; Smith and Tsutsumi, 2016; Yu, Shoji and Batto, 2016).

In the remainder of the section, I analyze the behavior of the candidate in two different scenarios, one in which she was selected in a primary and another in which she was nominated through an appointment of the party elites. Consistent with the discussion above, I assume that the only difference between these scenarios is that when the candidate is nominated in a primary, she reaches the general-election stage with an electoral machine in place.

Let $s_r(m)$ be the observed spending of the candidate running in a race with expected margin m when she was selected by rule $r \in \{A, P\}$, where A and P denote appointment and primary, respectively. First, consider the decision of the candidate who was appointed by the party elites. Since she does not have a machine in place, her general-election mobilization choices, and in particular her observed spending $s_A(m)$, are as in Proposition 1. Next, consider the candidate's calculus when she is selected in a primary. Since she already has a machine, her observed spending $s_P(m)$ is always equal to the optimal spending $s^*(m)$. Therefore, given a fixed expected margin m, any differences in the choices of the candidates are exclusively driven by the willingness of the appointed candidate to build a machine. The next result describes these differences formally.

Proposition 2. *Suppose the gains from optimal spending, $\gamma(m)$, are strictly positive for all expected margins of victory, m. Then:*

1. *If the race is expected to be competitive, the observed spending levels under appointment and under primary are equal to the optimal spending level. That is, if $m \in (\underline{m}, \overline{m})$ then $s_A(m) = s_P(m) = s^*(m) > 0$.*

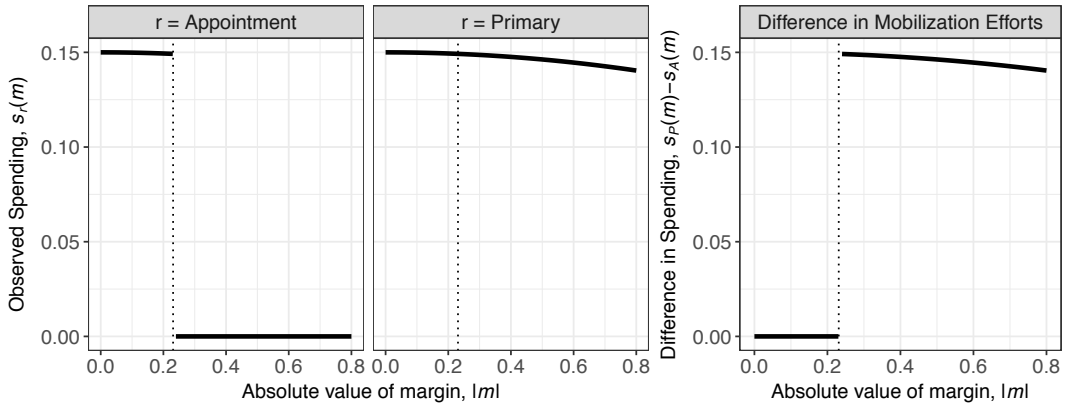
2. *If the race is not expected to be competitive, the observed spending under primary is equal to the optimal spending level, which is strictly positive, and the observed spending under appointment is zero. That is, if $m \notin [\underline{m}, \overline{m}]$ then $s_P(m) = s^*(m) > 0 = s_A(m)$.*

where $\underline{m} < 0$ and $\overline{m} > 0$ are as in Proposition 1.

This result has a very intuitive interpretation. If the candidate is nominated in a primary, she does not have to take into account the cost of building the machine, and thus she always spends her optimal spending level $s^*(m) > 0$. In contrast, if the candidate is appointed by the party elites, she spends her optimal spending level $s^*(m) > 0$ only when the gains from optimal spending, $\gamma(m)$, are larger than the cost of building the machine, k. Because these gains are larger in more competitive races, this is equivalent to saying that the appointed candidate spends her optimal spending level $s^*(m) > 0$ only when the race is sufficiently close, and spends no resources otherwise.

Figure 1 shows a graphical representation of Proposition 2. The two left panels show $s_r(m)$, the observed spending of a candidate nominated using rule $r \in \{A, P\}$ as a function of the absolute value of the expected margin, m. The dotted vertical line in each panel indicates the expected margin such that the gains from optimal spending are equal to the cost of building the machine, i.e., $|m|$ such that $\gamma(m) = k$. The first panel corresponds to the appointed candidate. When the expected margin is sufficiently small, the gains from optimal spending exceed the cost of building the machine, and thus she builds the machine and her observed spending, $s_A(m)$, is equal to her optimal spending, $s^*(m) > 0$. Otherwise, she does not build the machine and spends $s_A(m) = 0$. The second panel shows the choices of a candidate nominated in a primary. Because she already has an electoral machine, her observed spending $s_P(m)$ is equal to $s^*(m) > 0$ for all values of $|m|$.

Figure 1: Mobilization under alternative nomination rules



The panel on the right summarizes the main expectation derived from Proposition 2 by calculating the difference of the observed spending levels $s_P(m) - s_A(m)$. Specifically, this result states that *primaries should have a positive effect on the candidate's mobilization efforts only in non-competitive races*. When the candidate expects a sufficiently close race, she invests her optimal spending whether she was appointed or selected in a primary, and thus the difference in observed-spending levels for competitive races, $s_P(m) - s_A(m)$, is equal to zero. When the race is not expected to be close, however, the candidate invests her optimal spending $s^*(m) > 0$ when she was selected in a primary but does not invest any resources if she was appointed. Therefore, the difference in observed spending in non-competitive races is strictly positive, i.e., $s_P(m) - s_A(m) = s^*(m) > 0$. The remainder of the paper is devoted to assessing whether this expectation holds empirically.

Candidate Selection and Mobilization in Mexico

I study the implications of the model using data from almost a decade of legislative elections in Mexico. Below, I describe the features that make this an attractive case to study the link between nomination rules and electoral mobilization, and discuss how these inform my empirical analysis.

Nomination rules. The Chamber of Deputies is formed by 500 legislators, out of which 300 are elected in single-member districts (SMDs) and the remaining 200 by closed-list proportional representation. During 2003-2009, two of the country's major political parties, the PAN and the

PRD, exhibited substantial variation in their nomination procedures across SMDs. Table 1 summarizes the rules used by these parties during this period. As can be seen, in each election, a fraction of each party's candidates were nominated in primaries while the rest were appointed by their respective party leaders. The empirical analysis that follows exploits this rich variation, *within each party* and *within each election*, to compare the mobilization efforts of candidates nominated by different rules while holding constant any party-, and election-specific factors.

Table 1: Candidate selection rules across electoral districts

	PRD				**PAN**			
	2003	2006	2009	*Total*	2003	2006	2009	*Total*
Appointment	256	215	251	722	144	140	195	617
Primary	44	85	49	178	156	160	105	583
Total	300	300	300	900	300	300	300	900

Although the PAN has consistently nominated more candidates in primaries, the PRD has been more inclusive in terms of the composition of its primary electorate. According to Bruhn (2013), in each district the number of potential PRD primary voters per 1,000 registered voters was 97.5, whereas the comparable figure for the PAN was only 3.3. This is equivalent to saying that the primary electorates in PRD and PAN primaries were about 25,000 and 800 voters, respectively.

In line with the theory, primary candidates make substantial investments even when the primary electorate is small, as in the case of the PAN. There are several reasons for this. First, a small primary electorate means that every vote carries more weight, and thus mobilization can potentially have a larger impact. Second, primary voters are usually dispersed across the district, making it considerably harder for candidates to benefit from economies of scale, and thus relatively more expensive to campaign.[6] Finally, as noted before, primary candidates might build an electoral

[6]This intuition was well explained by a primary candidate, "My district was large, only a thousand voters but spread across almost twenty municipalities . . . two [voters] in this tiny rural town, twenty in that one, five on the top of the hill, and so on. Visiting all those towns was really complicated, there was no chance of meeting many people at once . . . it took a lot of money, a lot!"

machine in order to deter other aspirants from entering the race, which means that whether a candidate makes this type of initial investment is not necessarily related to the size of the primary electorate. The comments of a primary candidate for the PAN are worth citing at length,[7]

> I knew my district would be an uphill battle because the state is dominated by the PRI, but I had a good stock of political resources ... [During the primary] I got the support of [blank], and the governor of [another state] had also promised to support my campaign ... This happened behind closed doors, but I leaked these things to the press as they happened ... The mayors were really careful [with the money]. They committed their support for the federal [general election], but in the primary they only helped with very basic things, like making sure that everyone turned out to vote ... It was very disappointing [losing], I dismantled my campaign headquarters and went back to Mexico City with much less money than I had when I left.

This quote also provides some insight into the way in which candidates build their electoral machine. It is not necessarily the case that candidates do this from scratch. Instead, this process might involve gathering the support of powerful actors at the local level, such as co-partisan mayors, local party elites, or brokers who operate in the region, who can help the candidate not only during the primary but also, and perhaps even more important, during the general election.

Legislative candidates. The key assumption of the theoretical model is that candidates nominated in primaries reach the general-election stage with an electoral machine in place, whereas other candidates do not. There are a number of reasons that suggest this assumption holds well in the Mexican case. To start, during the period of study, the country's electoral law did not allow legislators to run for consecutive reelection, which means that in any given election all seats were open seats. This is useful because it implies that, by focusing on this case, we need not worry about incumbency affecting the likelihood of a candidate having a machine.

There is both anecdotal and empirical evidence indicating that, in line with the model's main assumption, candidates nominated in primaries have closer connections to the party's base that should facilitate building an electoral machine within their party. When asked whether candidates nominated in primaries were different from others, a former PAN chairman indicated that, during

[7] Interview by the author. All audios are available.

his tenure, the party appointed people who they thought would be successful general-election candidates and who, despite having good name recognition among the electorate, did not have what he called the "apparatus" to win a primary. He also noted, "I do not think there are too many differences in the skills of candidates [selected in primaries or appointed]. It really is just their circumstances: some got to the party first and the others later; some have [the support of] a solid network of party activists and the others do not; some have a partisan, internal career and the others a social, carismatic one." This perception was shared by a former member of the party's National Executive Committee, who indicated that appointed candidates were usually seen as outsiders with weak links to the party's base in the region, whereas primary winners generally "have been affiliated to the party for much longer and, because of that, have done much more groundwork."

Bruhn (2013) offers more systematic empirical evidence that matches these views. Using survey data from a sample of PAN and PRD legislative candidates, this author finds that candidates selected in primary elections were more closely connected to the party organization than those appointed by the party elites, as measured by both their number of years in the party and by whether they had held a post in the party. Here, I supplement Bruhn's analysis, which only includes data from 2006, by collecting data on the backgrounds of deputies elected in 2003 and 2009.

Appendix Section A.2 shows results of difference-in-means tests for a wide set of characteristics of the deputies' backgrounds. The results are consistent with previous accounts and also reveal a more nuanced relationship between nomination rules and the candidates' partisan experience than the qualitative evidence suggests. While candidates selected in primaries have more experience in partisan positions at the local level, those who were appointed by the party elites have more partisan experience at the national level. This is consistent with primary-nominated candidates having closer ties to their constituencies, meaning they are more connected to the party's rank and file and, more importantly, to powerful local actors. These are exactly the types of assets that should make it easier for candidates nominated in primaries to build an electoral machine.[8]

[8]An alternative way to interpret the model is as candidates having heterogeneous costs. Instead of assuming that candidates selected in primaries already have a machine, we could assume that

Electoral machines and mobilization. In Mexico, parties and candidates rely on brokers for the purpose of electoral mobilization. Whereas some brokers are partisan, meaning they actually support or are even affiliated to a political party, others are "free agents" who are willing to work for the highest bidder.[9] The tasks they perform include rallying potential supporters, distributing goods among them, providing transportation to the polling stations, and, importantly, monitoring voters at the polls. This last activity is facilitated by an institutional feature discussed in detail next.

The Mexican electoral law authorizes parties to have up to two representatives in each polling station (COFIPE, 2008, Art. 245).[10] In principle, their work is to safeguard the interests of their parties by preventing electoral irregularities,[11] but recent work has shown that they also play a key role in the enforcement of vote- and turnout-buying transactions (e.g., Mercado, 2013; Larreguy, Marshall and Querubín, 2016). In the weeks prior to the election, brokers and party activists create lists of supporters—either genuine party sympathizers or people who have received bribes from the broker—who intend to vote for the party in each polling station. On election day, the representatives use these lists to monitor whether voters on the brokers' lists have turned out to vote as well as to update the brokers on their progress so that they can adjust their efforts accordingly.

This process, sometimes called the "bingo system," works as follows. A citizen who attempts to vote at a polling station must first show her voter ID to the poll workers, who then verify whether she is registered to vote in the polling station. Poll workers are instructed to read the voter's name out loud so that the representatives, who also have the list of registered voters, can confirm that the person is indeed registered to vote in that polling station. Although this procedure is in place to prevent potential irregularities, such as impersonation and multiple voting, it also allows

because of their ties to their constituencies their cost of building the machine is $k^{\dagger} < k$. It is straightforward to show that for low enough $k^{\dagger} \geq 0$, the main expectation would also emerge.

[9]For a detailed discussion, see Mercado (2013) and Larreguy, Marshall and Querubín (2016).

[10]In 2014, this law was replaced by the *Ley General de Instituciones y Procedimientos Electorales* (LGIPE). However, the COFIPE was the electoral law throughout the period we study.

[11]Their responsibilities include, among others, reporting any irregularities, verifying the vote counts, and delivering (along the poll workers) all official documents to the INE's local office.

representatives to identify voters and thus to make the brokers' work more effective by keeping them updated on whether people on their lists have turned out to vote.

Having representatives at the polls is an essential part of a campaign's mobilization strategy, and thus candidates invest substantial amounts of resources to guarantee that most polling stations will be covered (Mercado, 2013; Larraz, 2018). Different types of investments are required. Candidates recruit and train people to serve as representatives, and on election day they must invest into getting the representatives to the polls and providing the right incentives for them to keep working throughout the day. Some of these expenditures involve transportation costs,[12] food,[13] and, most importantly, the representatives' wages. According to Mercado (2013), representatives receive between 150 to 300 pesos (7-15 USD), plus bonuses for performance, but other accounts[14] have documented instances of candidates paying up to 500-2,500 pesos (25-125 USD).[15]

The next section uses data on the presence of representatives to measure the candidates' mobilization expenses. This data has several advantages over alternative measures. First, the model establishes a link between a party's nomination rules and that party's mobilization efforts, and thus an empirical assessment of the theory requires a party-specific measure. This rules out turnout, which despite being widely used (e.g., Matsusaka, 1993), only captures aggregate mobilization levels. Second, this data overcomes some problems associated with other party-specific measures

[12]As a party activist puts it: "it is heavy duty to move so many people. At the same time you move them [the representatives], you need to move other people, communities. Unfortunately, we have to operate like this, we go to remote places with our fleet of taxis and we instruct them to take everyone to vote . . . The party is looking for people that can provide resources because you really need an army of people whose job is just that, electoral mobilization. On D-Day they are in charge of mobilizing everyone, the representatives and the voters"

[13]In most of the interviews, hunger was mentioned as one of the main reasons why representatives cut their work day short. In order to avoid dessertions, there are sometimes groups of campaign workers who are in charge of visiting polling station distributing food and snacks.

[14]See records CG31/2013 and CG258/2013 of the INE's General Council.

[15]As a reference point, the daily minimun wage in 2016 was 73.04 pesos.

of mobilization, such as campaign-spending figures (e.g., Cox and Munger, 1989) or self-reported survey data (e.g., Kernell, 2015). Importantly, the incentives to misreport are minimal, since only representatives registered before the electoral authority, the *Instituto Nacional Electoral* (INE), can be at the polls on election day.[16] Finally, the presence of representatives is easy to verify, as they are required to sign the official polling-station tallies and the INE keeps record of this information.

Empirical Analysis

The main claim of the theory presented here is that primaries have a positive effect on candidates' general-election mobilization efforts *only* in races that are expected to be *non-competitive*. In this section, I analyze an original dataset on candidate selection rules from three federal legislative elections in Mexico to empirically assess this expectation.

Data

I assemble a dataset with information on nomination rules and electoral mobilization for the the legislative elections of 2003, 2006, and 2009. The unit of analysis is the party-district-election.

Outcome variable. My measure of electoral mobilization, labeled *Representatives*, is the share of polling stations in the district in which the party had at least one representative on election day. This variable was built using data from the INE, which keeps records of all the information in the polling-station tallies, including whether they were signed by the representatives of each party.

Explanatory variables. A key variable of interest is *Primary*, a dummy that takes the value of one if the party's candidate was nominated in a primary, and a value of zero otherwise. The distribution of this variable is shown in Table 1. In order to account for the expected competitiveness, I

[16] Although campaign-spending figures are available in the Mexican case, it is well-known that parties and candidates often underreport this information in order to comply with the legal campaign-spending limits. Perhaps more importantly, a provision of the Mexican law known as *prorrateo* gives political parties huge discretion to unofficially transfer resources across races.

first calculate the party's margin of victory in the previous legislative election. For political party p, variable *Margin* is calculated as the difference between p's vote share in the previous election minus that of p's rival that got the most votes.[17] By construction, *Margin* is restricted to take values between -1 and 1, with larger (lower) values indicating that a safe win (loss) is expected, and values close to zero corresponding to places where the party expects a close race. I use *Margin* to create a measure of competitiveness, labeled *Non-competitive*, which is a dummy that takes the value of one if the party either won or lost the previous legislative election in the district by a margin of at least ten percentage points.[18]

Other covariates. The dataset also includes a number of political and demographic covariates. These include an indicator of whether the district is in a state with a copartisan governor, an indicator of whether state elections were held on the same day as the federal legislative election, the share of municipalities in the district ruled by a copartisan mayor, and the district's population share living in such municipalities. Other covariates are the district-level share of illiterate population, the shares of households that have dirt floors, have electricity, own a television, and own a computer, as well as an index that combines different dimensions of development using factor analysis. A detailed description of data sources and variable operationalization appears in the Appendix.

Results

The first piece of evidence comes from a set of OLS models. I estimate equations of the form

$$\begin{aligned} \textit{Representatives}_{ipt} = \alpha + \beta \textit{Primary}_{ipt} + \gamma \textit{Non-competitive}_{ipt} \\ + \phi \textit{Primary}_{ipt} \times \textit{Non-competitive}_{ipt} + x'_{ipt}\theta + \mu_p + \delta_t + \varepsilon_{ipt}, \end{aligned}$$

where i is an electoral district, p is a political party, and t is an election year. The equation also includes a vector of controls, x_{ipt}, a set of party fixed effects, μ_p, and a set of election-year fixed

[17] Letting $\textit{Vote}_i^p$ denote party p's vote share in district i: $\textit{Margin}_i^p = \textit{Vote}_i^p - \max\{\textit{Vote}_i^k | k \neq p\}$.

[18] Formally, *Non-competitive*$= \mathbb{1}\{|\textit{Margin}| > 0.1\}$ where $\mathbb{1}\{\cdot\}$ is the indicator function.

effects, δ_t. Some specifications include a set of party-election-year fixed effects, η_{pt}, which capture common shocks to all districts in a given election for each political party. Finally, the error term, ε_{it}, captures all other factors affecting the measure of electoral mobilization.

The main theoretical expectation is that primaries should have a positive effect on a party's electoral mobilization efforts only in places where the party does not expect a close race. In order to find support for the theory it is necessary, although not sufficient, that the estimate $\hat{\beta}$ is indistinguishable from zero and that $\hat{\phi}$ is positive. Throughout this section, however, my focus is not on the sign of these individual estimates but on the marginal effect of *Primary*, which is given by $\beta + \phi$*Non-competitive*. The expectation is that this effect is equal to zero when *Non-competitive* equals zero and positive when *Non-competitive* equals one.

Table 2 presents the main results. Column (1) shows estimates of the baseline specification. Consistent with the theoretical expectation, the coefficient of *Primary* is not statistically significant, meaning that, in places where a party expects a close race, holding a primary is not associated with an increase in party-representative coverage. However, in areas where the party does not expect a competitive race, the marginal effect of a primary is equal to $0.1 \approx 0.021 + 0.079$ (p-value $= 0.000$). The model in column (2) controls for the lagged dependent variable to account for the possibility that parties are more likely to use primaries in districts where they have covered a larger share of polling stations in the past. Again, the results are well in line with the theory, except the marginal effect of a party holding a primary in a district classified as non-competitive for that party goes down to $0.055 \approx 0.002 + 0.053$ (p-value $= 0.000$). Column (3) shows that these results are robust to the inclusion of party-election-year fixed effects. As the left panel of Figure 2 shows, the marginal effect of a primary is indistinguishable from zero in districts where a party expects a close race, and close to 5.3 percentage points in those where it expects a non-competitive one.

While these models provide strong support for the theory, a potential concern is that they are an artifact of the measure of electoral competitiveness. Recall that *Non-competitive* takes a value of one in district where the party either won or lost the previous election by a margin of at least ten percentage points, and a value of zero otherwise. To verify that these results are not driven

Table 2: Legislative primaries and electoral mobilization in Mexican elections, 2003-2009

DEPENDENT VARIABLE: *Representatives*	(1)	(2)	(3)	(4)	(5)	(6)
Primary	0.021	0.002	−0.003	−0.010	−0.008	−0.019
	(0.019)	(0.018)	(0.017)	(0.017)	(0.017)	(0.016)
Non-competitive	−0.111***	−0.062***	−0.064***			
	(0.014)	(0.013)	(0.013)			
Primary × Non-competitive	0.079***	0.053**	0.056**			
	(0.022)	(0.020)	(0.020)			
Abs(Margin)				−0.532***	−0.280***	−0.306***
				(0.038)	(0.042)	(0.040)
Primary × Abs(Margin)				0.376***	0.245***	0.294***
				(0.074)	(0.071)	(0.069)
Controls	✓	✓	✓	✓	✓	✓
Lagged dependent variable		✓	✓		✓	✓
Party fixed effects	✓	✓		✓	✓	
Election-year fixed effects	✓	✓		✓	✓	
Party-election-year fixed effects			✓			✓
N	1,761	1,761	1,761	1,761	1,761	1,761

Notes: The table reports estimates of OLS models. In all models, the control variables include: copartisan governor, local election, municipalities ruled by copartisan mayor (%), population ruled by copartisan mayor (%), rural, illiterate population (%), households with TV (%), households with dirt floors (%), households with electricity (%), and households with computer (%). Standard errors are shown in parentheses. Significance levels are as follows: p: *<0.05; **<0.01; ***<0.001.

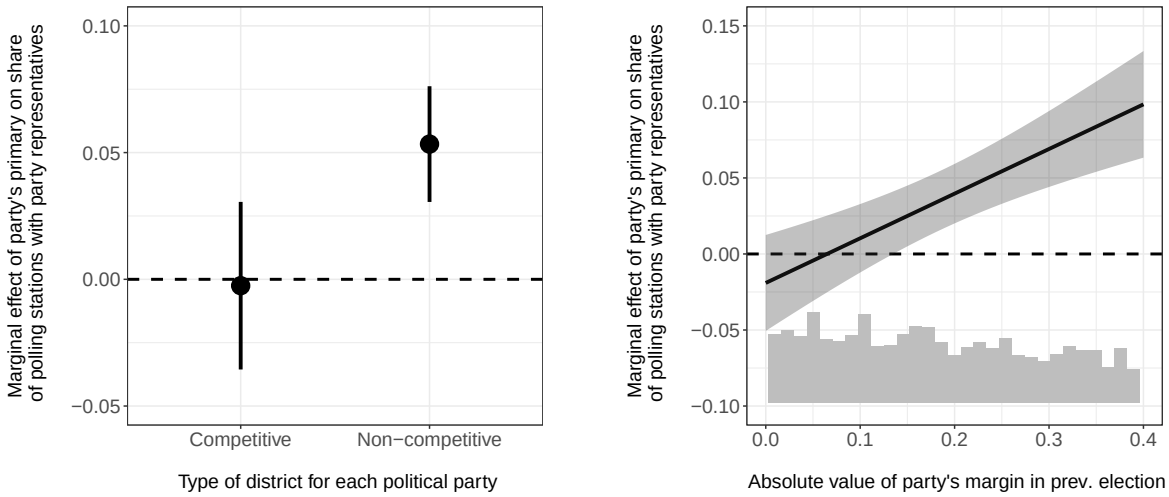
by this measure, I replicate the analysis in columns (1)-(3) using different thresholds to classify non-competitive districts, and find the same substantive results (see Appendix, Section A.5).

Columns (4)-(6) show estimates of models that use the absolute value of *Margin* as a measure of electoral competitiveness. Using the absolute value of this measure facilitates the interpretation, since it takes higher values as a race is expected to be less competitive—whether the party won or lost the previous election. The main expectation is that primaries do not have an effect on a party's electoral mobilization efforts for values of *Margin* close to zero, i.e., in races expected to be competitive, and that they have a positive effect when the absolute value of *Margin* is sufficiently large, i.e., where a party does not anticipate a competitive race. To start, it is important to note that the estimate of the absolute value of *Margin* is always negative and statistically significant, indicating that candidates invest more resources, and thus cover a higher share of polling stations, in races expected to be more competitive. This is exactly what the electoral mobilization literature, including the model presented here, would predict, providing additional confidence that party-representative coverage is, indeed, an accurate measure of the candidates' mobilization efforts.

More importantly, the results in (4)-(6) are consistent with the expectations. The coefficient of *Primary* in (4) is not statistically significant, meaning that primaries are not associated with higher levels of electoral mobilization in competitive races, and the positive and statistically significant coefficient of the interaction term indicates that primaries are associated with higher party-representative coverage when the absolute value of *Margin* is large enough. The models in (5) and (6), which control for the lagged dependent variable and include party-election-year fixed effects, respectively, reveal the same pattern. Figure 2 presents marginal effects of interest estimated from (6). The right panel shows that the marginal effect of a party holding a primary on the share of polling stations with representatives from that party is positive and statistically significant only when the absolute value of *Margin* is above 13 percentage points—this includes districts where the party either won the previous election or finished behind the winner by at least that margin.[19]

[19]Models (4) and (5) reveal a similar pattern, with the marginal effect becoming statistically significant around the 10 percentage-point threshold (see Appendix, Figure A1.)

Figure 2: Marginal effects of primaries on electoral mobilization



Notes: Left panel shows marginal effects of *Primary* as a function of *Non-competitive* (Table 2-(3)); the black dots show the effects and the lines are 95% CI. Right panel shows marginal effects of *Primary* as a function of *Margin* (Table 2-(6)); the black lines show the marginal effects and the shaded area are 95% CI.

Robustness Checks

I begin this section by showing that the previous results hold for each party. Table 3 shows results of party-specific OLS models analogous to those in the previous section. Columns (1) and (3) give estimates of the baseline specification, which uses *Non-competitive* as the measure of competitiveness. In both cases, the estimate of *Primary* is not statistically significant, indicating that primaries have no effect on mobilization where parties anticipate a competitive race. Similarly, for both parties, holding a primary in a non-competitive district is associated with a statistically significant increase of about 5 percentage points in the measure of mobilization.[20] These results are robust to the use of different thresholds to define non-competitive races (see Appendix, Section A.6). Columns (2) and (4) present estimates of models in which the measure of competitiveness is the absolute value of *Margin*. Again, consistent with the main theoretical expectation, the estimates reveal a positive and statistically significant association between the use of primaries and the measure of electoral mobilization only for large enough values of the party's past margin—Appendix Figure A3 shows the marginal effects estimated from these models.

[20]More specifically, 0.050 (p-val $= 0.000$) for the PAN and 0.051 (p-val $= 0.020$) for the PRD.

Interpreting the estimates in tables 2 and 3 as causal effects is not automatic. Since parties do not assign primary elections to electoral districts randomly, the results could be driven by omitted confounders. For instance, one might be concerned that an unobserved organizational feature of parties drives both the decision to use primaries as well as their ability to recruit representatives. It is important to highlight, however, that for this interpretation to be consistent with the findings, the influence of any confounder must operate *only among non-competitive districts*, i.e., districts where the party is very likely to win or to lose, and not among those where the party expects a competitive race. Consequently, the fact that the association between primaries and mobilization is conditional on the competitiveness of the district should reduce some of these concerns. Nevertheless, in an attempt to adjust for possible confounding factors, Appendix Section A.8 shows results of a matching analysis that are consistent with those presented in the previous section.

Table 3: Legislative primaries and electoral mobilization by political party

	PAN		PRD	
DEPENDENT VARIABLE: *Representatives*	(1)	(2)	(3)	(4)
Primary	0.012	−0.017	−0.027	−0.038
	(0.017)	(0.016)	(0.035)	(0.032)
Non-competitive	−0.037*		−0.098***	
	(0.015)		(0.021)	
Primary × Non-competitive	0.038		0.079*	
	(0.020)		(0.039)	
Abs(Margin)		−0.249***		−0.427***
		(0.053)		(0.062)
Primary × Abs(Margin)		0.317***		0.316**
		(0.078)		(0.121)
Controls	✓	✓	✓	✓
Lagged dependent variable	✓	✓	✓	✓
Election-year fixed effects	✓	✓	✓	✓
N	884	884	877	877

Notes: The table reports estimates of OLS models. In all models, the control variables include: copartisan governor, local election, municipalities ruled by copartisan mayor (%), population ruled by copartisan mayor (%), rural, illiterate population (%), households with TV (%), households with dirt floors (%), households with electricity (%), and households with computer (%). Standard errors are shown in parentheses. Significance levels are as follows: p: *<0.05; **<0.01; ***<0.001.

A related concern is how the parties' past electoral performance itself shapes both the nomination rules they use as well as their mobilization capacity. Previous research shows that these parties are more likely to use primaries where they have obtained better electoral results (Ascencio, 2018) and, at the same time, past electoral success might provide parties access to greater resources for electoral mobilization. Thus, if better electoral outcomes explain both selection into primaries and greater mobilization capacity, it is possible that the results are driven by party strongholds. I address this concern by subsetting the data by the level of electoral competitiveness of the district, and then running separate regressions of the measure of mobilization on *Primary* and the full set of controls (see Appendix, Section A.7). There are two main findings: (1) the marginal effect of primaries estimated from the subset of party strongholds (0.046, p-value $= 0.003$) is remarkably similar to the one estimated from the subset of "hopeless" districts (0.043, p-value $= 0.007$), and (2) the marginal effect of primaries estimated from the subset of competitive districts is statistically indistinguishable from zero. Overall, this analysis supports the theory and shows that the previous findings are not driven by a subset of non-competitive districts.

I conclude this section by taking advantage of an unusual episode in Mexican politics to provide suggestive evidence that my results are indeed an effect of primaries. I analyze data on the PAN's nomination process for the legislative election of 2012 in which, due to the unexpected involvement of the electoral tribunal, the PAN had to change the nomination rules it planned to use. This episode started in November 2011, when PAN chairman Gustavo Madero announced the party's decision to appoint candidates for the 2012 legislative elections in almost half the country's SMDs and to use primaries in the remaining half. After this announcement, hundreds of activists presented complaints before the electoral tribunal, which had recently been given authority to solve certain instances of intraparty conflict (Martín Reyes, 2012). The tribunal's ruling authorized the PAN to appoint candidates in only 20 out of the 138 districts in which they originally intended to do so,[21] which lead the party to select practically all its candidates via primaries.

[21] These districts were heavily concentrated in two states: Guerrero and Nuevo León.

These events offer a unique opportunity to compare outcomes from districts where the PAN leaders intended to hold primaries to those of places where they intended to appoint the candidates. Since practically all nominees were actually selected in primaries, this comparison follows a placebo-test logic.[22] Support for the previous results requires that the PAN's *intended* nomination rules do not explain any differences in the levels of polling-station coverage by PAN representatives; finding otherwise would suggest that the results presented so far are explained by the determinants of primaries rather than primaries themselves.

Table 4: Intended nomination rules and electoral mobilization, 2012

	Full Sample		Restricted Sample	
DEPENDENT VARIABLE: *Representatives*	(1)	(2)	(3)	(4)
Intended Primary	−0.023	−0.026	0.023	0.011
	(0.033)	(0.034)	(0.032)	(0.033)
Non-competitive	−0.076*		−0.052	
	(0.031)		(0.031)	
Intended Primary × Non-competitive	0.025		−0.014	
	(0.041)		(0.039)	
Abs(Margin)		−0.136		−0.012
		(0.141)		(0.148)
Intended Primary × Abs(Margin)		0.105		−0.014
		(0.170)		(0.169)
Controls	✓	✓	✓	✓
Lagged dependent variable	✓	✓	✓	✓
N	300	300	280	280

Notes: The table reports estimates of OLS models. In all models, the control variables include: copartisan governor, local election, rural, illiterate population (%), households with TV (%), households with dirt floors (%), households with electricity (%), and households with computer (%). Standard errors are shown in parentheses. Significance levels are as follows: *p*: *<0.05; **<0.01; ***<0.001.

Using the information from November 2011, I create a variable named *Intended Primary*, which is a dummy that takes a value of 1 in districts where the PAN planned to use a primary

[22]For this to be a regular placebo test, it would have to be that no candidates were selected in a primaries election, i.e., no district received the treatment. The case at hand is the opposite in that practically all candidates were nominated in primaries, i.e., all units received the treatment. This difference, however, is not consequential and the analysis I conduct serves the same purpose.

before the tribunal's ruling and a value of zero otherwise. Then, I replicate the analyses of previous sections using data from the 2012 legislative election. Table 4 summarizes the results of this test—the models in columns (1)-(2) were estimated using all 300 electoral districts, and in columns (3)-(4) I exclude the 20 districts in which the PAN leaders actually appointed the candidates. All these models confirm that the nomination rules announced by the party before the tribunal's intervention are not associated with the measure of electoral mobilization.[23]

Although this placebo test, by itself, does not help me isolate the causal effects of holding a primary, it does provide some reassurance about the possible influence of confounding factors. The main takeaway of Table 4 is that the factors that led the PAN to *try to use* primaries in 2012 are not associated with the outcome of interest in 2012. To the extent that this was also true in previous years, then these results are very suggestive evidence that the PAN models presented above do capture a causal effect.

Conclusion

This paper presents a novel theoretical model linking mobilization efforts during general-election races to political party's nomination rules. Building upon the literature on electoral mobilization, I construct a simple decision-theoretic model of the problem of an officeseeker who must decide whether to engage in costly electoral mobilization or not. In contrast to existing models, I assume that electoral mobilization is only possible when a candidate has invested resources into building an electoral machine, that is, a campaign team that is responsible for executing the tasks that are necessary for the effective mobilization of activists and voters.

The intuition behind my main theoretical result is that candidate selection rules affect whether an aspirant to office builds an electoral machine before the general election. Candidates nominated in primaries are more likely to have paid the initial costs of building an electoral machine, and thus can use this same apparatus to engage in costly mobilization during the general election, whether

[23] Appendix Figure A5 shows all marginal effects from these models.

the race is expected to be close or not. In contrast, candidates who are nominated in smoke-filled rooms have not paid these initial costs and choose to build an electoral machine only when a close race is expected. Overall, these different incentives lead to the empirical expectation that candidates nominated in primaries should mobilize at higher rates than their counterparts selected by the party elites only when general-election races are *not* expected to be competitive.

The main theoretical innovation of this paper is that it incorporates two realistic, and important, features of electoral politics into a standard model of mobilization. The first is that mobilization requires investing resources into building what I have called here an *electoral machine*. While the idea of candidates paying an initial cost for entering a race is not new, and is actually a standard assumption in entry models (e.g., Osborne and Slivinski, 1996), this work illustrates the importance of attaching more substantive meaning to what those costs represent and how these might affect the candidates' campaigning strategies. The second feature is that certain nomination rules, in particular primary elections, create incentives for aspirants to office to make these initial investments *before* they know whether they will run in the general election. This shift in the timing in which the initial investment is made can lead candidates nominated in primaries to exert greater efforts than if they had been nominated through other rules.

The implications of this study can be interpreted in two different lights. On the one hand, there seems to be some merit to the argument that using primaries can strengthen the party organization and encourage participation among the party's base. In contrast with voter- or activist-based accounts (e.g., Scarrow, 2000; Wauters, 2010), the theory presented here highlights the way in which primaries can shape the incentives of *aspirants to office* to invest resources into the party organization and into fostering the involvement of the party's rank and file. This candidate-based mechanism was best described by Schlesinger, who noted that "in a political party it is clear enough which people have the best defined personal stake: those with ambitions for office. Their payoffs, substantial and personal, *are worth the costs of organization*. Officeseekers thus are the entrepreneurs of the party" (1984, 388, emphasis added). On the other hand, primaries might weaken political parties by encouraging individual politicians to build their own organizations, and thus contributing

to the personalization of politics. In other words, if party leaders are not capable of incorporating the candidates' electoral machines into the party, there is real concern that the use of primaries could undermine the party apparatus by making aspirants to office less dependent on it.

Finally, it should also be noted that mobilization can take different forms, from traditional get-out-the-vote efforts, such as canvassing or direct mail, to irregular tactics, such as turnout and vote buying. Scholars have suggested that electoral institutions that promote intraparty competition lead candidates "to adopt personal electoral strategies, including vote buying" (Hicken, 2007, 47). While the theory advanced in this paper is mute about this point, an implication of the main theoretical result is that in contexts in which electoral competition is already clientelistic, the use of primary elections can exacerbate the prevalence of these irregular mobilization strategies.

References

Aldrich, John H. 1993. "Rational Choice and Turnout." *American Journal of Political Science* 37(1):246–78.

Ascencio, Sergio J. 2018. "Retaining Political Talent: A Candidate-Centered Theory of Primary Adoption." Paper presented at the 2018 APSA Annual Meeting.

Ascencio, Sergio J. and Miguel R. Rueda. Forthcoming. "Partisan Poll Watchers and Electoral Manipulation." *American Political Science Review* .

Atkeson, Lonna Rae. 1998. "Divisive Primaries and General Election Outcomes: Another Look at Presidential Campaigns." *American Journal of Political Science* 42:256–271.

Bruhn, Kathleen. 2013. "Electing extremists? Party primaries and legislative candidates in Mexico." *Comparative Politics* 45:398–417.

Cantú, Francisco. Forthcoming. "Groceries for Votes: The Electoral Returns of Vote Buying." *Journal of Politics* .

URL: *http://fcantu.net/content/1.pages/4.research/VoteBuyingFinal.pdf*

COFIPE. 2008. "Código Federal de Instituciones y Procedimientos Electorales.".

Cox, Gary W. 1999. "Electoral Rules and the Calculus of Mobilization." *Legislative Studies Quarterly* 24:387–419.

Cox, Gary W. and Michael C. Munger. 1989. "Closeness, Expenditures, and Turnout in the 1982 U.S. House Elections." *The American Political Science Review* 83(1):217–31.

Díaz-Cayeros, Alberto, Federico Estévez and Beatriz Magaloni. 2016. *The Political Logic of Poverty Relief: Electoral Strategies and Social Policy in Mexico*. Cambridge University Press.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. Addison-Wesley.

Fauvelle-Aymar, Christine and Abel François. 2016. "The impact of closeness on turnout: An empirical relation based on a study of two-round ballot." *Public Choice* 127:469–91.

Fukumoto, Kentaro and Yusaku Horiuchi. 2016. "Identifying the effect of mobilization on voter turnout through a natural experiment." *Electoral Studies* 44:192–202.

Gerber, Elisabeth R. and Rebecca B. Morton. 1998. "Primary Election Systems and Representation." *Journal of Law, Economics, and Organization* 14(2):304–324.

Hacker, Andrew. 1965. "Does a "Divisive" Primary Harms a Candidate's Election Chances?" *American Political Science Review* 59(1):105–110.

Hazan, Reuven Y. and Gideon Rahat. 2010. *Democracy within Parties. Candidate Selection Methods and Their Political Consequences*. Oxford University Press.

Hicken, Allen D. 2007. How Do Rules and Institutions Encourage Vote Buying? In *Elections for Sale: The Causes and Consequences of Vote Buying*, ed. Frederic C. Schaffer. Lynne Rienner pp. 47–60.

Hix, Simon. 2004. "Electoral Institutions and Legislative Behavior: Explaining Voting Defection in the European Parliament." *World Politics* 56(January):194–223.

Ichino, Naomi and Noah Nathan. 2013. "Do Primaries Improve Electoral Performance? Clientelism and Intra-Party Conflict in Ghana." *American Journal of Political Science* 57(2):428–441.

Kenney, Patrick J. and Tom W. Rice. 1987. "The Relationship between Divisive Primaries and General Election Outcomes." *American Journal of Political Science* 31(1):31–44.

Kernell, Georgia. 2015. "Party Nomination Rules and Campaign Participation." *Comparative Political Studies* 48(13):1814–1843.

Key, V.O. 1949. *Southern Politics in State and Nation*. Knopf.

Langston, Joy. 2006. "The Changing Party of the Institutional Revolution: Electoral Competition and Decentralized Candidate Selection." *Party Politics* 12(3):395–413.

Larraz, Irene. 2018. "Los partidos pueden pagar a sus representantes de casilla, pero deben reportarlo.".
URL: *https://verificado.mx/partidos-pagar-representantes-casilla/*

Larreguy, Horacio, John Marshall and Pablo Querubín. 2016. "Parties, Brokers and Voter Mobilization: How Turnout Buying Depends Upon the Party's Capacity to Monitor Brokers." *American Political Science Review* 110:160–79.

Lengle, James I., Diana Owen and Molly W. Sonner. 1995. "Divisive Nominating Mechanisms and Democratic Party Electoral Prospects." *The Journal of Politics* 57(2):370–383.

Martín Reyes, Javier. 2012. "El Tribunal de los Militantes: El Control Judicial de los Conflictos Intrapartidistas en México." *América Latina Hoy* 62:131–153.

Matsusaka, John G. 1993. "Election closeness and voter turnout: Evidence from California ballot propositions." *Public Chocie* 76:313–34.

Mercado, Lauro. 2013. Clientelismo electoral: compra, coacción, y otros mecanismos que limitan el voto libre y secreto en México. In *Ideas para una nueva reforma electoral*, ed. Luis Carlos Ugalde and Gustavo Rivera Loret de Mola. Centro de Estudios Espinoza Iglesias pp. 236–275.

Morton, Rebecca B. 1987. "A Group Majority Voting Model of Public Good Provision." *Social Choice and Welfare* 4:117–31.

Morton, Rebecca B. 1991. "Groups in Rational Turnout Models." *American Journal of Political Science* 35(3):758–76.

Osborne, Martin J. and Al Slivinski. 1996. "A Model of Political Competition with Citizen-Candidates." *Quarterly Journal of Economics* 111(1):65–96.

Pennings, Paul and Reuven Y. Hazan. 2001. "Democratizing Candidate Selection: Causes and Consequences." *Party Politics* 7:267–275.

Rainey, Carlisle. 2015. "Strategic mobilization: Why proportional representation decreases voter mobilization." *Electoral Studies* 37:86–98.

Riker, William H. and Peter C. Ordeshook. 1968. "A Theory of the Calculus of Voting." *The American Political Science Review* 62(1):25–42.

Rosenstone, Steven J. and John Mark Hansen. 1993. *Mobilization, Participation, and Democracy in America*. Macmillan Publishing Company.

Scarrow, Susan E. 2000. Parties without Members? Party Organization in a Changing Political Environment. In *Parties without Partisans: Political Change in Advanced Industrial Democracies*, ed. Russell J. Dalton and Martin P. Wattenberg. Oxford University Press.

Schlesinger, Joseph A. 1984. "On the Theory of Party Organization." *The Journal of Politics* 46(2):369–400.

Sekhon, Jasjeet. 2011. "Multivariate and Propensity Score Matching Software with Automated Balance Optimization: The Matching Package for R." *The Journal of Statistical Software* 42(7):21–51.

Shachar, Ron and Barry Nalebuff. 1999. "Follow the Leader: Theory and Evidence on Political Participation." *American Economic Review* 89(3):525–547.

Siavelis, Peter M. and Scott Morgenstern, eds. 2008. *Pathways to Power. Political Recruitment and Candidate Selection in Latin America*. The Pennsylvania State University Press.

Smith, Daniel and Hidenori Tsutsumi. 2016. "Candidate Selection Methods and Policy Cohesion in Parties: The Impact of Open Recruitment in Japan." *Party Politics* 22(3):339–53.

Southwell, Priscilla L. 1986. "The politics of disgruntlement: Nonvoting and defection among supporters of nomination losers, 19681984." *Political Behavior* 8(1):81–95.

Stone, Walter J. 1984. "Prenomination Candidate Choice and General Election Behavior: Iowa Presidential Activists in 1980." *American Journal of Political Science* 28(2):372–389.

Uhlaner, Carole J. 1989. "Rational Turnout: The Neglected Role of Groups." *American Journal of Political Science* 33(2):390–422.

Veiga, Francisco José and Linda Gonçalves Veiga. 2018. "Term limits and voter turnout." *Electoral Studies* 53:20–28.

Wauters, Bram. 2010. "Explaining Participation in Intra-Party Elections." *Party Politics* 16(2):237–259.

Yu, Eric Chen-hua, Kaori Shoji and Nathan F. Batto. 2016. Innovations in Candidate Selection Methods. In *Mixed-Member Electoral Systems in Constitutional Context*, ed. Nathan F. Batto, Chi Huang, Alexander C. Tan and Gary W. Cox. pp. 135–164.

A Online Appendix

Contents

A.1 A model of mobilization (proofs and additional results)

This appendix contains all the formal proofs of Proposition 1 and Proposition 2 as well as some additional results. To start, I label the assumptions mentioned in the main text as follows.

Assumption 1. *u is increasing in m for any s.*

Assumption 2. *For all s, the derivative of u with respect to s, denoted $u_s(s,m)$, is single-peaked in m with a peak at $m = 0$.*

Propositions 1 and 2 follow from two preliminary results. The first establishes that the candidate's optimal spending level is increasing in the expected competitiveness of the electoral race.

Lemma 1. *Suppose $s^*(m) > 0$ for all m in $[-1,1]$. The candidate's optimal spending level $s^*(m)$ is single-peaked in m with a peak at $m = 0$.*

Proof. Suppose $s^*(m) > 0$ for all m in $[-1,1]$ This result follows from the fact that for any given expected margin m' the optimal spending level $s^*(m')$ must be such that $u_s(s^*(m'),m') = 0$. Without loss of generality, consider expected margins m', m'' such that $m' < m'' < 0$. Assumption 2 implies $u_s(s^*(m'),m'') > u_s(s^*(m'),m') = 0$. We conclude that $s^*(m'') > s^*(m')$. Next, consider any $m' \neq 0$. Assumption 2 implies $u_s(s^*(0),m') < u_s(s^*(0),0) = 0$. Therefore, we conclude $s^*(0) > s^*(m')$ for any $m' \neq 0$, as required. □

The next result shows that *gains from optimal spending* function γ is increasing in the expected competitiveness of the electoral race.

Lemma 2. *Suppose $s^*(m) > 0$ for all m in $[-1,1]$. The gains from optimal spending function, $\gamma(m) = u(s^*(m),m) - u(0,m)$, is single-peaked in m with a peak at $m = 0$.*

Proof. Suppose $s^*(m) > 0$ for all m in $[-1,1]$ We want to show two things: (1) γ is increasing in $|m|$ and (2) $\gamma(0) > \gamma(m)$ for all $m \neq 0$. The former is equivalent to showing that γ is increasing in m for all $m \leq 0$, and decreasing in m for all $m \geq 0$.

We start with (1). Consider two expected margins, m_1 and m_2, where $|m_1| < |m_2|$. We simplify the notation by letting $s_1 = s^*(m_1)$ and $s_2 = s^*(m_2)$. Define $f : \mathbb{R}_+ \to \mathbb{R}$ as

$$f(s) = u(s,m_1) - u(0,m_1) - [u(s,m_2) - u(0,m_2)].$$

Since f is the sum of two differentiable functions, $u(s,m_1)$ and $u(s,m_2)$, and a constant, we know f is differentiable. More specifically, notice that

$$f'(s) = u_s(s,m_1) - u_s(s,m_2).$$

Suppose, $m_1, m_2 \leq 0$, which means $m_2 < m_1 \leq 0$. Then, Assumption 2 implies $f'(s) = u_s(s, m_1) - u_s(s, m_2) > 0$ for all s, which implies f is strictly increasing in s. Similarly, by Lemma 1 $m_2 < m_1 \leq 0$ implies $0 \leq s_2 < s_1$. Finally, since $f(0) = 0$ and f is strictly increasing, it must be that $f(s_2) \geq 0$. Notice that

$$\gamma(m_2) = u(s_2, m_2) - u(0, m_2) \leq u(s_2, m_1) - u(0, m_1) < u(s_1, m_1) - u(0, m_1) = \gamma(m_1),$$

so we conclude $m_2 < m_1 \leq 0$ implies $\gamma(m_2) < \gamma(m_1)$, which shows γ is increasing in m for all $m \leq 0$. An analogous argument shows that γ is decreasing in m for all $m \geq 0$.[24] Finally we show (2). Consider any $m' \neq 0$; either $m' > 0$ or $m' < 0$. Without loss of generality, suppose $m' > 0$. Then, Part (1) of the proof implies $\gamma(0) > \gamma(m')$. Therefore, $\gamma(0) > \gamma(m')$ for all $m' \neq 0$. Therefore, we conclude γ is single-peaked in m with peak at $m = 0$. □

Proposition 1. *Suppose $\gamma(m) > 0$ for all $m \in [-1, 1]$. There exists k^* such that:*

(1) If $k > k^*$, then $\bar{s}(m) = 0$ for all $m \in [-1, 1]$.

(2) If $k < k^*$, then $\bar{s}(m)$ is as follows:

$$\bar{s}(m) = \begin{cases} s^*(m) & \text{if } m \in [\underline{m}, \overline{m}], \\ 0 & \text{otherwise.} \end{cases}$$

Here, $k^* \equiv \gamma(0)$, and functions $\underline{m} : \mathbb{R} \to [-1, 0)$ and $\overline{m} : \mathbb{R} \to (0, 1]$ are defined as follows

$$\underline{m}(k) = \begin{cases} -1 & \text{if } \gamma(-1) > k, \\ g^{-1}(k) & \text{otherwise} \end{cases}, \qquad \overline{m}(k) = \begin{cases} 1 & \text{if } \gamma(1) > k, \\ h^{-1}(k) & \text{otherwise} \end{cases}$$

where $g = \gamma|_{[-1,0]}$ and $h = \gamma|_{[0,1]}$.[25]

[24] Suppose, $m_1, m_2 \geq 0$, which means $0 \leq m_1 < m_2$. Assumption 2 implies $f'(s) = u_s(s, m_1) - u_s(s, m_2) > 0$ for all s, so f is strictly increasing in s. By Lemma 1, $0 \leq m_1 < m_2$ implies $0 \leq s_2 < s_1$. Finally, since $f(0) = 0$ and f is strictly increasing, it must be that $f(s_2) \geq 0$. We have

$$\gamma(m_2) = u(s_2, m_2) - u(0, m_2) \leq u(s_2, m_1) - u(0, m_1) < u(s_1, m_1) - u(0, m_1) = \gamma(m_1),$$

so we conclude $0 \leq m_1 < m_2$ implies $\gamma(m_1) > \gamma(m_2)$, which shows γ is deccreasing in m for all $m \geq 0$

[25] Letting A be a subset of the domain of γ, $\gamma|_A$ is the restriction of γ to domain A.

Proof of Proposition 1. This result follows automatically from Lemma 2 and the fact that the candidate's observed spending is defined according to the following rule

$$\bar{s}(m) = \begin{cases} s^*(m) & \text{if } \gamma(m) \geq k, \\ 0 & \text{otherwise.} \end{cases}$$

We begin with part (1). Suppose $k > k^* = \gamma(0)$. Then, Lemma 2 implies $k > \gamma(m)$ for all $m \in [-1,1]$, which implies $\bar{s}(m) = 0$. for all $m \in [-1,1]$.

Next, consider part (2). Suppose $k < k^* = \gamma(0)$. First, I show that $m \in [\underline{m}, \overline{m}]$ implies $\bar{s}(m) = s^*(m)$. By definition, $k \leq \gamma(\underline{m})$, and Lemma 2 implies $k < \gamma(m)$ for all $m \in [\underline{m}, 0]$. Also by definition, $k \leq \gamma(\overline{m})$, and thus by Lemma 2 we have $k < \gamma(m)$ for all $m \in [0, \overline{m}]$. Therefore, $m \in [\underline{m}, \overline{m}]$ implies $k < \gamma(m)$, and thus we conclude $\bar{s}(m) = s^*(m)$.

Second, I show that $m \notin [\underline{m}, \overline{m}]$ implies $\bar{s}(m) = 0$. Without loss of generality, suppose $m < \underline{m}$, which is only possible if $\underline{m} > -1$. This means that $\underline{m} = g^{-1}(k)$, which implies $\gamma(\underline{m}) = k$. Lemma 2 implies $k > \gamma(m)$ for all $m < \underline{m}$). We conclude that $m < \underline{m}$ implies $k > \gamma(m)$, and thus $\bar{s}(m) = 0$. □

Proposition 2. *Suppose* $\gamma(m) > 0$ *for all* $m \in [-1,1]$, *and* $\max\{\gamma(-1), \gamma(1)\} < k < \gamma(0)$.

1. *If* $m \in (\underline{m}, \overline{m})$ *then* $s_A(m) = s_P(m) = s^*(m) > 0$.
2. *If* $m \notin [\underline{m}, \overline{m}]$ *then* $s_P(m) = s^*(m) > 0 = s_A(m)$.

where $\underline{m} < 0$ *and* $\overline{m} > 0$ *are as in Proposition 1.*

Proof of Proposition 2. This result follows automatically from the fact that $s_A(m) = \bar{s}(m)$, as characterized in part (2) of Proposition 1 and that $s_P(m) = s^*(m)$ for all $m \in [-1,1]$. □

A.2 Legislator's backgrounds

Table A1 shows results of difference-in-means tests for different attributes of the deputies' backgrounds, collected from the *Sistema de Información Legislativa*[26]. The sample includes all PAN and PRD deputies elected in single-member districts in the 2003 and 2009 legislative elections.

Table A1: Professional backgrounds of PAN and PRD deputies (2003 and 2009)

Variables	Mean		Difference	$t^{\dagger}$	p–value
	Primary	Appointment			
Previous elected office					
State legislator (N)	0.46	0.36	0.10	1.52	0.13
State legislator (years)	1.32	1.00	0.32	1.61	0.11
Federal legislator (N)	0.11	0.11	−0.01	−0.18	0.86
Federal legislator (years)	0.32	0.34	−0.03	−0.18	0.86
Mayor (N)	0.25	0.28	−0.03	−0.47	0.64
Mayor (years)	0.61	0.72	−0.11	−0.69	0.49
Municipality council (N)	0.32	0.22	0.10	1.51	0.13
Municipality council (years)	0.72	0.46	0.26	1.62	0.11
Any office (N)	0.67	0.61	0.05	0.84	0.40
Any office (years)	1.14	0.97	0.16	1.21	0.23
Bureaucratic Experience					
Local level (N)	2.19	1.59	0.60	2.25	0.03
Local level (years)	3.88	3.25	0.63	1.16	0.25
Federal level (N)	0.58	0.68	−0.11	−0.53	0.60
Federal level (years)	1.41	1.09	0.32	0.73	0.47
Partisan Experience					
Local party posts (N)	3.47	2.57	0.9	2.40	0.02
Local party posts (years)	6.22	4.05	2.17	3.00	0.00
National party posts (N)	0.38	0.71	−0.33	−2.16	0.03
National party posts (years)	0.69	1.43	−0.74	−2.07	0.04
State Council Member (N)	0.38	0.32	0.05	0.84	0.40
National Council Member (N)	0.16	0.17	−0.01	−0.23	0.82
Years in party	9.92	7.47	2.44	2.83	0.01
N	123	114			

† Test statistic of test of difference in means for independent samples.

Most background characteristics were counted using two criteria: either (N) the number of positions held by the person, or number of times elected to a position in the case of previous elected office, or (years) the number of years the person served in the position. The characteristics were classified into three groups:

1. **Previous elected office.** I distinguish four types of elected office. *State legislator* and *Mayor* are self descriptive. *Federal legislator* includes previous appointments as either fed-

[26] http://sil.gobernacion.gob.mx/portal

eral deputy or senator; and *Municipality council* includes previous appointments as either *s'indico* or *regidor*. *Any office* aggregates all previous positions under the same category.

2. **Bureaucratic experience.** I distinguish two types of bureaucratic positions. *Federal level* includes position in the federal government, and *Local level* includes positions in both the state and municipal levels.

3. **Partisan experience.** I distinguish two types of partisan posts. *National party posts* includes positions in the national party headquarters, and *Local party posts* includes positions in both the state- and municipal- party branches. I also include two variables that count the number of times the person has served in the party's State Council and National Council. Finally, when not self-reported, the number of years in the party was calculated by taking the year in which the person held the first partisan position as their affiliation year.

A.3 Variable description

The unit of analysis of the data is the party-district-year. In the descriptions below, parties are indexed by p, electoral districts by d and years by t.

- *Primary.* Dummy variable. Takes value of 1 if party p used a primary in electoral district d for election t; equal to zero otherwise. Sources: Own, based on official files provided by *Instituto Nacional Electoral* (INE) and *Partido Acción Nacional* (PAN).

- *Intended Primary.* Dummy variable. Takes a value of 1 if PAN announced intention to hold a primary in electoral district d for 2012 election; equal to zero otherwise. Sources: Own, based on veredict to case SUP-JDC-10842/2011 *Tribunal Electoral del Poder Judicial de la Federación (TEPJF)*, and cross-checked with official information provided by PAN.

- *Margin*. Calculated as party's margin of victory in the previous legislative election in a given district. Specifically, let $Vote_i^p$ denote party p's vote share in district i. Then, the *Margin* for party p in district i, also denoted $Margin_i^p$, is calculated as

$$Margin_d^p = Vote_d^p - \max\{Vote_d^k | k \neq p\}.$$

  Source: INE.

- *Representatives*. Calculated as the number of polling-stations in district d in which at least a representative of party p signed the polling station's vote tally, divided by the total number of polling-stations in district d. Source: INE.

- *Copartisan governor*. Dummy variable that takes a value of 1 if district d is in a state governed by a governor of party p during election year t. Source: CIDAC.

- *Local election*. Dummy variable that takes a value of 1 if district d is in a state that held local election on the same day as the federal election in year t Source: CIDAC.

- *Municipalities ruled by copartisan mayor (%)*. Calculated as a fraction. The numerator is the number of municipalities in district d that were governed by a mayor of party p at time t, and the denominator is the number of municipalities in district d. Source: Elaborated from electoral data of CIDAC and INE.

- *Population ruled by copartisan mayor (%)*. Calculated as a fraction. The numerator is the number of registered voters in district d living in municipalities that were governed by a mayor of party p at time t, and the denominator is the number of registered voters in district d. Source: Elaborated from electoral data of CIDAC and INE.

- *Rural*. Weighted average of the Index of Marginalization estimated by the Mexican *Consejo Nacional de Población* (CONAPO). The index was calculated in 2000, 2005, and 2010 at the municipality level. *Rural* is the weighted average of this index; the weight of each municipality is equal to the share of registered voters in district *d* that live in the municipality. Source: CONAPO.

All of the following variables come from the Dataset *Estadísticas Censales a Escalas Geoelectorales II Conteo de Población y Vivienda 2005 (ECEG)* by INE and INEGI.

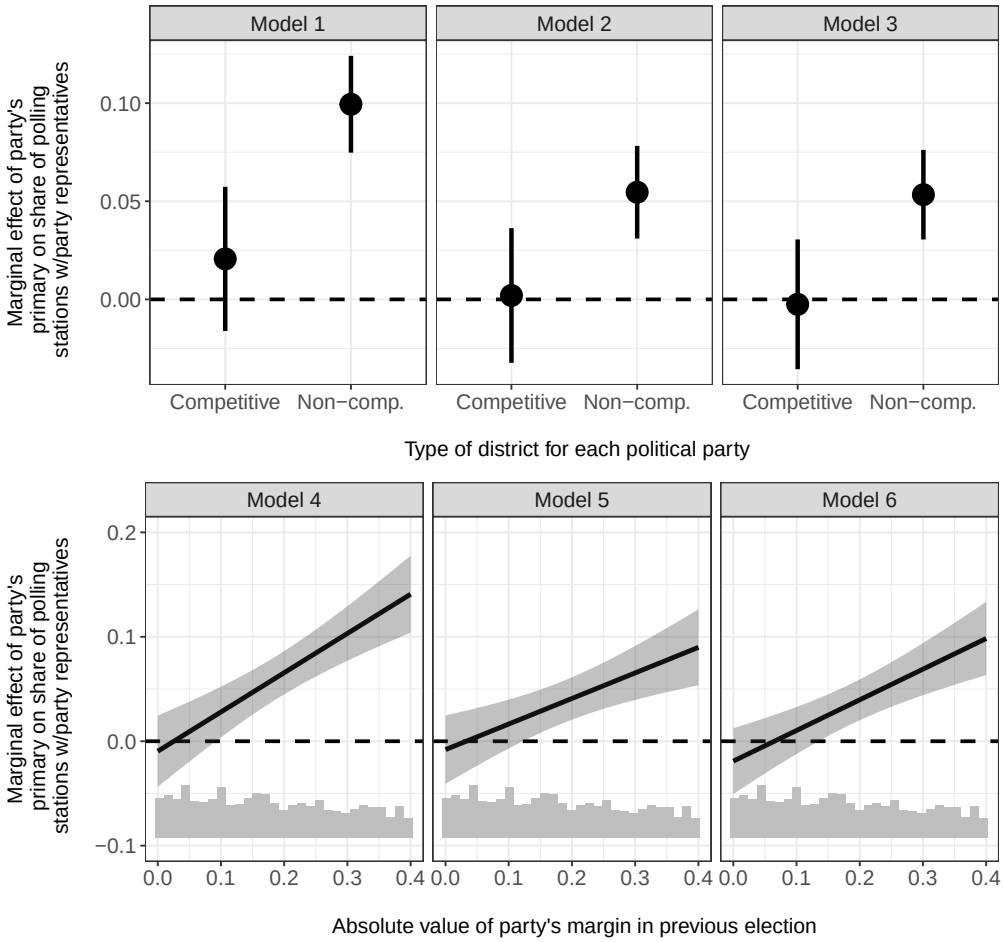
- *Illiterate population (%)*. Share of illiterate population in district *d*.

- *Households w/TV (%)*; *Households w/dirtfloor (%)*; *Households w/dirt floor (%)*; *Households w/electricity (%)*; *Households w/computer (%)* are share households in district *d* with: at least one television, dirt floors, electricity, and at least one computer, respectively.

A.4 Marginal effects from main analysis (Table 2)

Figure A1 show marginal effects of interest of all the models included Table 2 (in the main text).

Figure A1: Marginal effects of Primary (from Table 2 – in the main text)



Notes: Top panel shows marginal effects of *Primary* as a function of *Non-competitive*. The black dots show the marginal effects and the lines are 95% CI. Bottom panel shows marginal effects of *Primary* as a function of (the absolute value of) *Margin*. The black lines show the marginal effects and the shaded regions are 95% CI. All marginal effects were estimated using the respective model in Table 2.

A.5 Alternative thresholds for non-competitive districts

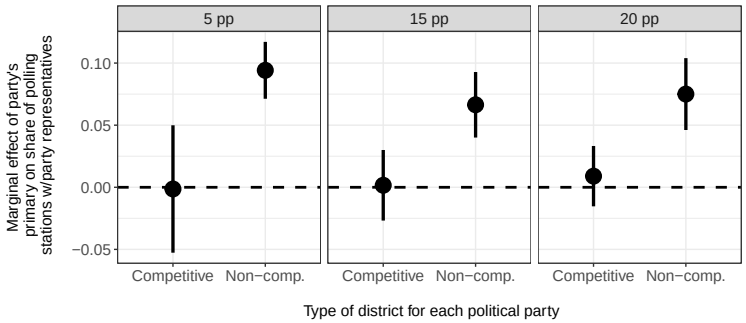
Table A2 replicate the main results of the paper using different thresholds to classify non-competitive districts. In the first column, *Non-competitive* is a dummy that indicates districts in which the party won or lost the previous election by a margin of at least five percentage points, i.e., Non-competitive $= \mathbb{1}\{|\text{Margin}| > 0.05\}$. In the remaining columns, *Non-competitive* is defined similarly, but using a threshold of 15 and 20 percentage points, respectively. In all models, I follow the most stringent specification in Table 2 (in the main text), which controls for the lagged dependent variable and uses party-election-year fixed effects. Figure A2 shows the marginal effects from these models.

Table A2: Legislative primaries and party representatives in Mexico
(Alternative measures of electoral competitiveness)

Measure of Non-competitive ($\lvert\text{Margin}\rvert \geq$)	5pp	15pp	20pp
Primary	−0.001	0.002	0.009
	(0.026)	(0.014)	(0.012)
Non-competitive	−0.102***	−0.070***	−0.066***
	(0.018)	(0.012)	(0.012)
Primary × Non-competitive	0.096***	0.065***	0.066***
	(0.028)	(0.019)	(0.018)
Lagged dependent variable	✓	✓	✓
Other controls	✓	✓	✓
Party-election-year fixed effects	✓	✓	✓
N	1,761	1,761	1,761

Notes: The table reports estimates of OLS models in which the dependent variable is *Representatives*. Controls include: *Representatives* (lagged), copartisan governor, local election, municipalities ruled by copartisan mayor (%), population ruled by copartisan mayor (%), rural, illiterate population (%), households with TV (%), households with dirt floors (%), households with electricity (%), and households with computer (%). Standard errors are shown in parentheses. Significance levels are: p: *<0.05; **<0.01; ***<0.001.

Figure A2: Marginal effects of Primary (from Table A2)

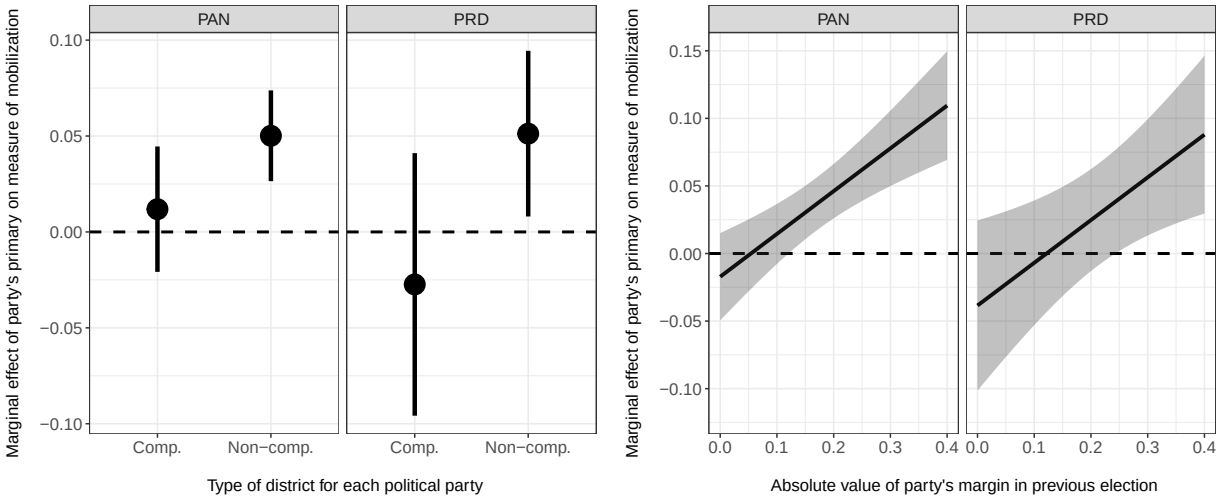


Notes: Marginal effects of *Primary* as a function of *Non-competitive* (estimated using models in Table A2). The black dots show the marginal effects and the lines are 95% confidence intervals.

A.6 Marginal effects from party-specific analysis (Table 3) and additional results

Figure A1 show marginal effects of interest of all the models included Table 3 (in the main text). In order to verify that these results are not driven by the definition of non-competitive districts, Table A3 replicates the models in Table 3 (in the main text) using alternative thresholds to classify non-competitive races, as in Section **??**. Finally, Figure A4 show marginal effects of interest of all the models included Table A3.

Figure A3: Marginal effects of Primary from Table 3 (in main text)



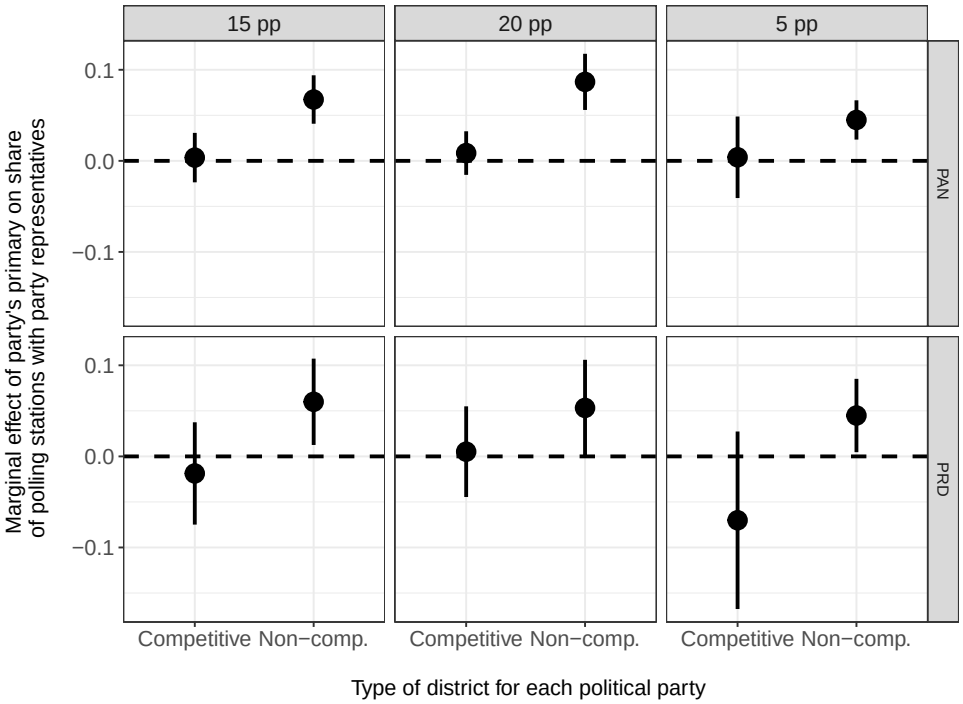
Notes: Top panel shows marginal effects of *Primary* as a function of *Non-competitive*. The black dots show the marginal effects and the lines are 95% CI. Bottom panel shows marginal effects of *Primary* as a function of (the absolute value of) *Margin*. The black lines show the marginal effects and the shaded regions are 95% CI. All marginal effects were estimated using the respective model in Table 3 (main text).

Table A3: Legislative primaries and party representatives by political party (Alternative thresholds)

	PAN			PRD		
Measure of Non-competitive	(1)	(2)	(3)	(4)	(5)	(6)
|Margin| ≥	5pp	10pp	20pp	5pp	10pp	20pp
Primary	0.004	0.012	0.009	−0.070	−0.027	0.005
	(0.023)	(0.017)	(0.012)	(0.050)	(0.035)	(0.025)
Non-competitive	−0.024	−0.037*	−0.062***	−0.104	−0.098***	−0.074***
	(0.018)	(0.015)	(0.014)	(0.026)	(0.021)	(0.019)
Primary × Non-competitive	0.041	0.038	0.078**	0.115*	0.079*	0.048
	(0.025)	(0.020)	(0.019)	(0.052)	(0.039)	(0.035)
Lagged dependent variable	✓	✓	✓	✓	✓	✓
Other controls	✓	✓	✓	✓	✓	✓
Election-year fixed effects	✓	✓	✓	✓	✓	✓
N	884	884	884	877	877	877

Notes: The table reports estimates of OLS models in which the dependent variable is*Representatives*. In all models, the control variables include: *Representatives* (lagged), copartisan governor, local election, municipalities ruled by copartisan mayor (%), population ruled by copartisan mayor (%), rural, illiterate population (%), households with TV (%), households with dirt floors (%), households with electricity (%), and households with computer (%). Standard errors are shown in parentheses. Significance levels are as follows: *p*: *<0.05; **<0.01; ***<0.001.

Figure A4: Marginal effects of Primary (from Table A3)



Notes: Marginal effects of *Primary* as a function of *Non-competitive* (estimated using models in Table A3). The black dots show the marginal effects and the lines are 95% confidence intervals.

A.7 Analysis by type of electoral district

This section presents results of a set of OLS models. I estimate the following equation:

$$Representatives_{ipt} = \alpha + \beta Primary_{ipt} + + x'_{ipt}\theta + \eta_{pt} + \varepsilon_{ipt},$$

where i is an electoral district, p is a political party, and t is an election year. Following the most stringent specification presented in the main text, the vector of controls, x_{ipt}, includes the lagged dependent variable. The equation also includes a set party-election-year fixed effects, η_{pt}, which capture common shocks to all districts in a given election for each political party.

The equation was estimated on four different subsets of the data—Table A4 shows results. Columns (1) and (2) report estimates from subsets of competitive and non-competitive districts, classified using *Non-competitive*, a dummy that equals 1 in districts in which a party either won or lost the previous election by at least 10 percentage points, and equals 0 otherwise. I further classify non-competitive districts (i.e., those for which *Non-competitive*= 1) as Strongholds and "Hopeless," depending on whether the party won or lost the previous election. That is, an observation is classified as a stronghold if $Margin_{ipt} > 0.1$, and as "hopeless" if $Margin_{ipt} < -0.1$. Columns (3) and (4) show estimates for these districts. Overall, the results are consistent with the theoretical expectations. The coefficient of *Primary* is not statistically significantly different from zero in column (1), which shows the results for the sample of competitive districts. In contrast, this coefficient is positive and statistically significant all other models, showing that the main results of the paper are driven by neither the party strongholds nor the hopeless districts. Moreover, the magnitude of the coefficient is remarkably similar across specifications.

Table A4: Legislative primaries and electoral mobilization by type of electoral district

DEPENDENT VARIABLE: *Representatives*				
SAMPLE (TYPE OF DISTRICTS):	(1) Competitive $\lvert Margin\rvert \leq 0.1$	(2) Non-competitive $\lvert Margin\rvert > 0.1$	(3) "Hopeless" $Margin \leq -0.1$	(4) Strongholds $Margin > 0.1$
Primary	0.026	0.045***	0.043***	0.046**
	(0.015)	(0.012)	(0.016)	(0.015)
Controls	✓	✓	✓	✓
Lagged dependent variable	✓	✓	✓	✓
Party-election-year fixed effects	✓	✓	✓	✓
N (Total number of observations)	441	1,320	1,001	319
Observations with *Primary*= 1	191	397	189	208

Notes: The table reports estimates of OLS models. In all models, the control variables include: copartisan governor, local election, municipalities ruled by copartisan mayor (%), population ruled by copartisan mayor (%), rural, illiterate population (%), households with TV (%), households with dirt floors (%), households with electricity (%), and households with computer (%). Standard errors are shown in parentheses. Significance levels are as follows: p: *<0.05; **<0.01; ***<0.001.

A.8 Matching analysis

To ameliorate concerns that the findings are driven by confounders, and in the absence of an exogenous source of variation in the use of primaries, I conduct a matching analysis at the party level. First, for each party, I split the sample into two by the level of competitiveness of the district: (1) Non-competitive (if *Non-competitive*= 1) and (2) Competitive (if *Non-competitive*= 0). Then, I implement the matching procedure within each subset. There are multiple ways to implement the matching procedure, but I employ a technique known as genetic matching (Sekhon, 2011).[27] I use one-to-one matching with replacement to estimate the Average Treatment Effect on the Treated (ATT). This means that, for every district in which a party used a primary, the procedure finds a match from the set of districts in which the party appointed candidates. The observations were matched using the covariates used in the main text, all of which are listed in Section **??** of this Appendix. Additionally, I matched exactly on election year, meaning all matches are within the same election.

I assess whether matching increased balance by comparing observable characteristics of the districts in which a party used primaries with those of districts where candidates were appointed. For each covariate, I performed t-tests of difference in means for independent samples, and bootstrapped Kolmogorov-Smirnov tests for equality of distributions (for continuous variables), both before and after matching. Table A5 shows p-values associated with the tests.

Before matching, there exits substantial imbalance, particularly in the subset of non-competitive districts. After matching, practically all the imbalance goes away in the PAN data, but PRD non-competitive subset remains considerably imbalanced even after matching. Importantly, the districts where the PRD held primaries are significantly different from those were it did not in terms of the party's previous margin, the lagged dependent variable, the shares of municipalities and people in the district that are ruled by PRD mayors, whether state elections were held on the same day as the legislative election. Overall, while matching should help isolate the causal effect of PAN primaries, the PRD results should be interpreted with caution given the considerable baseline differences between districts. To be clear, this is not to say that PRD primaries do not have an effect, it only means that, given the data, the matching design does not allow me to identify such an effect.

Table A6 presents the results of the analysis. Panels A show OLS estimates with the original data (before matching), and Panels B presents matching estimates of the ATT with post-matching adjustment with regression (using the same set of covariates). Consistent with the theoretical model, the coefficients in columns (1) and (3), which were estimated from the subset of competitive districts, are not statistically significant, and those in columns (2) and (4), estimated from the subset of non-competitive districts, are positive and statistically significant.

[27] For details on this matching procedure, see (Sekhon, 2011)

Table A5: Pre-matching and Post-matching Balance

PANEL A. COMPETITIVE AND NON-COMPETITIVE DISTRICTS FOR THE PAN

Covariates	Competitive districts $\lvert Margin\rvert \leq 0.1$				Non-competitive districts $\lvert Margin\rvert > 0.1$			
	Original data		Post–matching		Original data		Post–matching	
	t–test *p*–val	KS test *p*–val	*t*–test *p*–val	KS test *p*–val	*t*–test *p*–val	KS test *p*–val	*t*–test *p*–val	KS test *p*–val
Margin	0.158	0.088	0.352	0.179	0.000	0.000	0.639	0.535
Representatives $t-1$	0.000	0.001	0.209	0.197	0.000	0.000	0.995	0.124
Copartisan governor	0.000	–	0.002	–	0.000	–	0.082	–
Local election	0.981	–	0.706	–	0.003	–	0.138	–
Copartisan mayor (% mun.)	0.028	0.062	0.335	0.582	0.000	0.000	0.386	0.163
Copartisan mayor (% pop.)	0.025	0.057	0.211	0.170	0.000	0.000	0.566	0.171
Rural	0.328	0.477	0.085	0.114	0.000	0.000	0.589	0.161
% Illiterate population	0.609	0.490	0.339	0.856	0.000	0.000	0.321	0.771
% Households w/TV	0.334	0.346	0.526	0.855	0.106	0.000	0.329	0.099
% Households w/dirt floors	0.762	0.497	0.737	0.860	0.000	0.000	0.895	0.241
% Households w/electricity	0.382	0.347	0.492	0.560	0.499	0.023	0.120	0.066
% Households w/computer	0.331	0.497	0.680	0.861	0.038	0.000	0.055	0.072

PANEL B. COMPETITIVE AND NON-COMPETITIVE DISTRICTS FOR THE PRD

Covariates	Competitive districts $\lvert Margin\rvert \leq 0.1$				Non-competitive districts $\lvert Margin\rvert > 0.1$			
	Original data		Post–matching		Original data		Post–matching	
	t–test *p*–val	KS test *p*–val	*t*–test *p*–val	KS test *p*–val	*t*–test *p*–val	KS test *p*–val	*t*–test *p*–val	KS test *p*–val
Margin	0.086	0.155	0.835	0.788	0.000	0.000	0.003	0.033
Representatives $t-1$	0.219	0.175	0.386	0.072	0.000	0.000	0.000	0.003
Copartisan governor	0.024	–	0.740	–	0.000	–	0.069	–
Local election	0.412	–	0.155	–	0.000	–	0.000	–
Copartisan mayor (% mun.)	0.004	0.000	0.024	0.384	0.000	0.000	0.000	0.437
Copartisan mayor (% pop.)	0.006	0.011	0.027	0.387	0.000	0.000	0.221	0.741
Rural	0.002	0.007	0.416	0.419	0.003	0.000	0.000	0.001
% Illiterate population	0.324	0.066	0.011	0.439	0.000	0.000	0.289	0.046
% Households w/TV	0.172	0.044	0.066	0.429	0.112	0.001	0.000	0.009
% Households w/dirt floors	0.236	0.051	0.047	0.435	0.000	0.000	0.355	0.047
% Households w/electricity	0.135	0.019	0.017	0.427	0.079	0.001	0.002	0.020
% Households w/computer	0.160	0.070	0.157	0.429	0.001	0.000	0.493	0.047

Notes: The table shows measures of balance for pre-treatment variables before matching and after matching for the Average Treatment Effect of the Treatment (ATT). Within each group of columns, the first shows the *p*-values of tests of difference in means for independent samples, and the second shows *p*-values of bootstrapped Kolmogorov-Smirnov test for equality of continuous distributions.

Table A6: Primaries and electoral mobilization by party and type of district

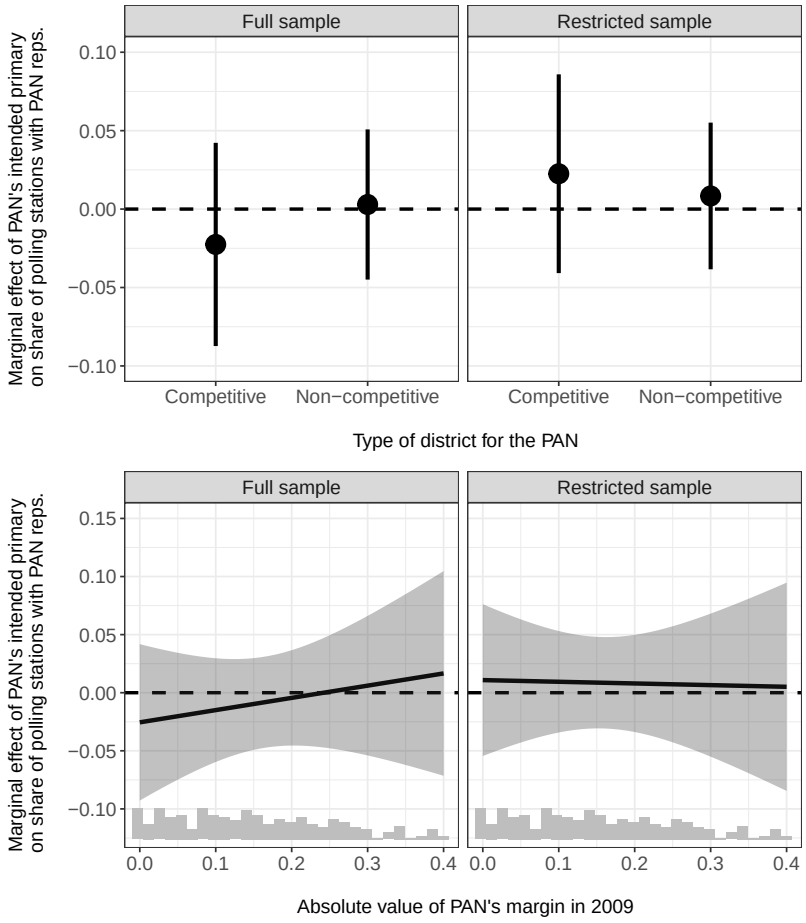
DEP. VARIABLE: *Representatives*	PAN		PRD	
SAMPLE (TYPE OF DISTRICTS):	(1) Competitive $\lvert Margin\rvert \leq 0.1$	(2) Non-competitive $\lvert Margin\rvert > 0.1$	(3) Competitive $\lvert Margin\rvert \leq 0.1$	(4) Non-competitive $\lvert Margin\rvert > 0.1$
PANEL A. PRE-MATCHING				
Primary	0.019	0.045***	0.033	0.047*
	(0.016)	(0.013)	(0.034)	(0.023)
Controls	✓	✓	✓	✓
Lagged dependent variable	✓	✓	✓	✓
Election-year fixed effects	✓	✓	✓	✓
N (Total number of observations)	272	612	169	708
Observations with *Primary*= 1	146	269	45	128
PANEL B. POST-MATCHING (ATT)				
Primary	0.020	0.046***	−0.000	0.055*
	(0.014)	(0.010)	(0.035)	(0.027)
Controls	✓	✓	✓	✓
Lagged dependent variable	✓	✓	✓	✓
Election-year fixed effects	✓	✓	✓	✓
N (Total number of observations)	292	538	90	256
Observations with *Primary*= 1	146	269	45	128

Notes: The table reports estimates of OLS models. In all models, the control variables include: copartisan governor, local election, municipalities ruled by copartisan mayor (%), population ruled by copartisan mayor (%), rural, illiterate population (%), households with TV (%), households with dirt floors (%), households with electricity (%), and households with computer (%). Standard errors are shown in parentheses. Significance levels are as follows: p: *<0.05; **<0.01; ***<0.001.

A.9 Marginal effects from placebo test (Table 4)

Figure A5 show marginal effects of interest of the placebo-test model in Table 4 (in the main text.)

Figure A5: Marginal effects of Primary (from Table 4 – in the main text)



Notes: Top panel shows marginal effects of *Primary* as a function of *Non-competitive*. The black dots show the marginal effects and the lines are 95% CI. Bottom panel shows marginal effects of *Primary* as a function of (the absolute value of) *Margin*. The black lines show the marginal effects and the shaded regions are 95% CI. All marginal effects were estimated using the respective model in Table 4.