

# Female Officeholders and Women's Political Engagement: The Role of Parties

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## Abstract

The ability of women in office to inspire other women to enter politics can be an important process in undoing longstanding gender gaps in political representation. Previous research on this potential role model effect of female officeholders finds mixed results in terms of female candidacies across a wide range of contexts. Explanations for these mixed findings include that positive effects are conditional on the nature of women's incorporation in a given context, and also suggest female incumbents can lower the perceived need/utility of more women running. I take a wider view and test for role model effects across different levels of the candidate emergence process. In doing so, I put a spotlight on a potentially pivotal variable: the role of parties and their candidate selection processes in moderating role model effects. Through a case study of Mexico, I find evidence of engagement effects among women in the mass public as well as women seeking party nominations, but no evidence for role model effects at the candidate-level (either within or across districts) in congressional elections. Using data on the candidate nomination processes of one major political party, I find evidence that party decisions in candidate selection methods attenuate possible role model effects.

Key words: role model effects, descriptive representation, women and politics, political parties, candidate selection

A key dimension of political representation is the extent to which a governing body resembles or mirrors the citizens it is tasked with representing (Pitkin 1967). This concept of descriptive representation is particularly important for legislative institutions, which serve as the primary representative body of government. Yet, a widespread feature of legislatures across the world is the under-representation of women in office. These deficits in descriptive representation are argued to have significant implications for the substantive representation of women (Phillips 1995, Mansbridge 1999). Moreover, unequal representation in deliberative bodies along gender lines is associated with diminished legitimacy for the institution (Schwindt-Bayer and Mishler 2005) as well as for its policy decisions (Clayton et al. 2019).

The potential for women in office to serve as a catalyst for the political engagement of other women is important considering the gender gap in political representation that characterizes politics across the world. Can female officeholders inspire other women to enter politics? Previous research on this process, commonly referred to as a role model effect, finds mixed results across a diverse set of contexts. This paper makes two contributions. First, I propose that researchers take into account the larger candidate emergence process when testing for role model effects, rather than focusing on the final stage of candidacies. Second, I argue that political parties, especially in their choices over candidate selection methods, can exert considerable influence in the gender composition of candidates and thus influence the potential for observing role model effects at the candidate level.

In the rest of this paper, I first provide a rationale for taking a larger view of candidate emergence when testing for role model effects. Specifically, I examine role model effects at the level of the mass public, aspirants for offices, and candidacies. I argue that role model effects are more likely to be observed at the earlier stages of candidate emergence but not necessarily at the level of candidacies. I develop a theoretical justifi-

cation for how the gendered consequences of candidate selection methods interact with parties' strategic considerations about which methods to use, resulting in party influence that can attenuate any role model effects. Using the case of Mexican legislative elections, I do find evidence for role model effects from female officeholders at earlier stages of the candidate emergence process (among the mass public and aspirants for parties' nominations). However, I find no evidence for role model effects at the level of candidacies. I use data from one major Mexican party to show that parties' choices at this stage can wash out any effects of female officeholders on female aspirants for office. These findings have important implications for future research on role model effects. Substantively, I place a spotlight on parties as gatekeepers whose decisions at the candidate stage may obscure role model effects in the mass public and the party's grassroots. This paper's findings also have implications for how researchers tackle the question of role model effects in future research. I argue for using a framework of analysis that takes into account the many stages of political engagement.

## **Women's Representation and Role Model Effects**

Given the importance of descriptive representation for a political system, researchers have focused on the factors that impede (or improve) the numerical representation of women in government. Research in the U.S. and U.K. contexts finds that women fair as well as men in comparable elections (Norris et al. 1992, Seltzer et al. 1997). However, a negative bias for female candidates among voters has been found in other contexts (Schwindt-Bayer et al. 2010, Langston and Aparicio 2011), especially in systems with electoral rules that facilitate such biases in voting behavior (Batista Pereira 2015). Nevertheless, the disparities in whether men and women run for office are an important contributor to the overall inequalities in descriptive representation across the world.

Scholars have thus focused their attention to the question of female candidacy for office, as the lower frequency of women running for office is found to be a driver of women's under-representation among officeholders (Lawless and Fox 2010).

This focus on the disparities in candidacies has been paralleled by developments in the policy-making sphere towards the implementation of gender quotas for parties' lists of candidates. These quotas are meant to fast-track the process of opening the political sphere to traditionally excluded groups (Tripp and Kang 2008). They do so by correcting for the strongest determinant of whether a member of such groups (in this case women) wins office: whether they run for office. The expansion of women in office that has been brought about by such policies, as well as in non-quota systems, has raised the question of their potential symbolic effects. The concept of symbolic representation refers to the emotional or affective response for constituents from the descriptive characteristics of the representative (Pitkin 1967, 100). A woman winning political office is theorized to influence the political engagement (specifically, the office-seeking behavior) of other women through these symbolic effects as well as other practical means such as influencing candidate recruitment. This has great normative implications as the potential for symbolic effects on women's political attitudes and engagement entails a virtuous cycle of women winning political office in unequal contexts. A sizable body of research has developed around the empirical testing of such symbolic effects from female politicians (Desposato and Norrander 2009, Barnes and Burchard 2012, Clayton 2015, Kerevel and Atkeson 2017, Liu 2018).

Previous work has identified significant gaps in political ambition and engagement between men and women in their early lives that result in gender gaps in the composition of those who run for office (Dolan et al. 2007, Fox and Lawless 2014). Therefore, much attention has been placed on the effects of female officeholders on the political engagement of their constituents and especially among adolescents. On this front, studies

find a positive link between the presence of female politicians and the political interest of women, including adolescents (Campbell and Wolbrecht 2006). There is comparative research in support of the hypothesis that female officeholders influence women's political participation (Wolbrecht and Campbell 2007, Desposato and Norrander 2009, Barnes and Burchard 2012). However, there are also mixed or null results (Lawless 2004, Dolan 2006) as well as arguments in favor of conditional effects based on party congruence between politician and citizen (Reingold and Harrell 2010) as well as the political competitiveness of seats (Atkeson 2003). Moreover there are questions about the generalizability of these effects for all regions of the world (Liu 2018). Evidence of backlash effects (worsening political engagement from female politicians) is found in contexts where strong quotas may generate negative stigmas for female politicians and candidates (Clayton 2015, Kerevel and Atkeson 2017).

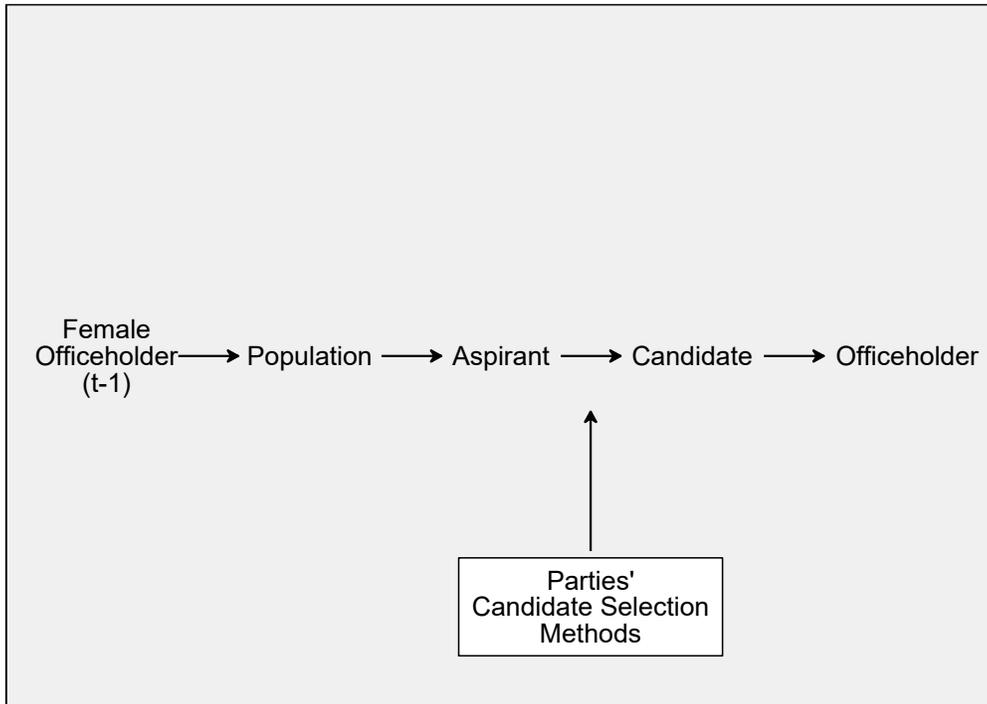
The logic of symbolic benefits can apply to the level of office-seeking, a particularly intense form of political engagement. Along with the symbolic mechanism, female officeholders may be in a position to improve the political recruitment of women. Despite the theorized relationship, previous research on the role model effect of female officeholders on other women's decision to run for office finds mixed results. Moreover, these mixed results come from a variety of political contexts. Studies from a unique policy experiment in India that randomized assignment of gender quotas find evidence for persistent positive effects on the likelihood that women stand for and win public office in constituencies with female officeholders (Beaman et al. 2009; Bhavnani 2009). However, in a study of Indian state legislatures, Bhalotra et al. (2018) find that positive effects in subsequent elections are driven by female incumbents and there is in fact a reduction in the entry of new female candidates. In a different context, Broockman (2014) finds no positive effects from women winning nearby state legislative seats on women's political engagement (measured as turnout and running for office). Moreover,

any positive effect in the number of women candidates and probability of women winning office in subsequent elections seems driven solely by female incumbents. In a study of Swiss local elections Gilardi (2015) finds that the presence of female officeholders is positively associated with the number of women who subsequently run for office in neighboring districts. This effect is especially strong in the period following women's political enfranchisement and diminishes over time.

Authors have attempted to provide system-level explanations for these mixed results. One potential explanation is that positive effects are conditional on the level of women's incorporation into the political life of a given context. Gilardi's (2015) work grapples directly with this question by suggesting that the symbolic importance of a female officeholder is particularly pronounced at early stages of women's political inclusion and becomes negligible once some sufficient level of political inclusion is achieved. This may explain why no effects are found in the US context. However, the contrasting findings from the same context of India (Beaman et al. 2009; Bhavnani 2009; Bhalotra et al. 2018), where the societal-level political inclusion of women is low, cast doubt on this potential explanation. Another potential explanation is that female incumbents can lower the perceived need/utility of more women running, or perhaps deter female newcomers. As the analysis of the Mexican case will highlight below, this incumbency explanation may also be insufficient.

This paper makes a theoretical contribution to the study of role model effects by placing a spotlight on the role of parties. Previous work that has found no support for role model effects at the level of candidacies fails to account for the many stages of the candidate emergence process. Figure 1 demonstrates the stages of the candidate emergence process and how role model effects from female officeholders are theorized to take hold. At the start, there is a female officeholder who wins office in the previous period. This would result in increases in the political engagement of women in the

Figure 1: Role Model Effects and Candidate Emergence



general population. At the next stage, women activated by the role model effect become more likely to seek the nomination of parties for elected office. Subsequently, parties make selections based on the pool of aspirants (or pre-candidates) for the general election. Between the aspirant and candidate stage, parties exercise a tremendous amount of influence in their ability to shape the composition of nominees for public office. Finally, a greater share of women candidates is expected to lead to more women officeholders.<sup>1</sup>

There are three important takeaways from the process illustrated by this figure. First, candidate emergence entails multiple stages, any of which can serve as a bottleneck for female newcomers. Second, this has implications for the ability of researchers

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<sup>1</sup>As Lawless and Fox (2010) argue, the deficit in women's representation is due in larger part to deficits in the number of women candidates than deficits in electoral performance compared to men. Langston and Aparicio (2011) find similar patterns in the case of Mexican legislative elections, the focus of this paper.

to observe role model effects, which begin at an earlier stage of the pipeline and may eventually lead to candidacies. If studies operationalize the presence of role model effects from female officeholders in terms of changes in the composition of candidates, this may ignore changes in political engagement earlier in the process. Third, parties can exercise a substantial amount of influence between the aspirant and candidate stages, particularly in their candidate selection methods, that may serve as a potential bottleneck for any role model effects.

Figure 1 also underscores the other main contribution of this paper for the empirical study of role model effects. Lawless and Fox (2010) analyzed gender dynamics at different stages of the candidate emergence process to identify the decision to run as the most important factor in women's underrepresentation in the United States. I adapt this framework for testing for and understanding role model effects. I propose future research eschew making conclusions about the strength and nature of role model effects from a test at a single stage (and especially at the final stages of the process as in the previous work on female candidacies cited above). Instead, I argue that researchers should take into account tests of the relationship between female officeholders and women's political engagement throughout the process of candidate emergence. This approach has three advantages. First, it provides a more comprehensive assessment of role model effects in a given political system. A narrow empirical null result at the level of candidacies may lead to the erroneous conclusion that female officeholders do not provide an inspiration for women to enter politics when there is such a relationship at earlier stages. Second, this approach can aide researchers in identifying the factors that may attenuate potential role model effects (as this paper will demonstrate with candidate selection methods and the Mexican case). Finally, a comprehensive approach will encourage the integration of the large body of research on symbolic representation and mass behavior and attitudes (referenced above) with research on political ambition

and nomination-seeking.

## **The Role of Parties**

The process outlined in Figure 1 provides some insight for the likelihood of detecting role model effects at different levels of political engagement. To the extent that role model effects from female officeholders are present at all in a political system, they are more likely at the earlier stages of the process. The reason for this is that the link between a woman winning office and the manifestation of the resulting increase in the political engagement of other women at these earlier stages is not fully contingent on the assent of another actor or institution as it is for candidacies. Female constituents can start taking a greater interest in politics and talking about politics more often. Women who are activists or members of a party may begin the process of seeking nomination for elected office. These activities are not costless but, controlling for the ability and resources (and in the case of aspiring for office, the qualifications) to engage in them, they are open for pursuing when motivated by the symbolic effect of a role model in office. Candidacies are different since parties exercise tremendous power as gatekeepers and greatly influence the final composition of candidates.

To develop an explanation for why female officeholders may not increase female candidacies as well as the overall mixed results in the behavioral literature on role model effects, I draw on the institutional research on the effects of political parties on women's descriptive representation. Scholars have looked to a variety of party characteristics that can directly influence the gender composition of their candidacies (Caul 1999; Kunovich and Paxton 2005), such as party ideology (Funk et al. 2017), candidate quota adoption (Caul 2001), candidate recruitment (Sanbonmatsu 2002), and the bureaucratization of candidate selection (Bjarnegård and Zetterberg 2016). I focus here on candidate selection methods, since they are the most visible means by

which parties exert influence in the composition of nominees for office. As Kenny and Verge (2016) note, candidate selection is central to the question of how political parties facilitate or block women's access to political office.

Research in this area has demonstrated that there are gendered consequences from parties' candidate selection procedures. In Latin America, Hinojosa (2012) shows that certain selection methods are better suited for producing women candidates than others. Specifically, selection methods that are exclusive and centralized by the party leadership are more likely to produce female nominees than inclusive and decentralized selection methods. In practice, an exclusive-centralized method often takes the form of a central party committee designating candidacies nationally. An inclusive-decentralized method often entails a primary held at the level of the electoral unit for the general election.

A growing body of literature has investigated the potential trade-off between inclusive candidate selection procedures within parties and the representation of women and other marginalized groups among the final list of candidates. Three potential mechanisms behind this relationship emerge in the literature. First, different selection methods can enhance or diminish the importance of local networks of political influence and therefore placing greater importance on an aspirant's status as a political insider and their access to resources. Hinojosa (2012) argues that when local selectorates have control of nomination decisions (i.e. decentralized methods), aspirants for office must rely on the support of existing networks that may exercise a monopoly on political power at the local level. Conversely, exclusive and centralized methods can neutralize such local power monopolies, as final decisions are made elsewhere by national party figures. To the extent that candidate selection is decentralized and traditional power monopolies are influential, women will be disadvantaged since they are less likely to be "insiders" in local political networks. This is especially the case in the contexts,

such as Latin America, that Hinojosa examines, where women have traditionally been excluded from local political offices. Similarly, Wang and Muriaas (2019) find that in developing contexts, such as Zambia, aspirants must be able to provide material goods in a bid to secure local-level support for the nomination. Such efforts are made difficult if an aspirant does not have access to patronage networks or a personal pool of resources from which to draw, again disadvantaging women in decentralized selection.

A second explanation offered in the literature is that centralized methods allow party leadership to implement internal parity goals and/or quota obligations. Rahat et al. (2008) point out that national leaders and local selectorates of party members have different aims when carrying out designations or primaries, respectively. Party members voting in localized primaries may simply take into consideration the ability of aspirants to muster support for their nomination, which as discussed above often turns on their connection to influential networks and access to resources. The party leadership, however, is forced to consider the overall composition of the slate of candidates, which often includes considerations about the diversity of candidates. This can be to fulfill the party's voluntary goals on the diversity of lists or comply with legislated quotas. Because party leadership must often take such factors into consideration while local and open selectorates are not, the result is that centralized and exclusive methods like direct designation by party leadership are more likely to produce female candidates. Gauja and Cross (2015) find that such a dynamic can be contingent on a party culture favoring greater diversity. Examining Australian parties, they find that when parties lack internal goals regarding the diversity of candidacies as well as lack party organizations or caucuses pushing for more diversity, centralized/exclusive methods do not provide more diverse candidates than decentralized primaries. This points to the potential importance of legislated quotas in generating the relationship between selection methods and female candidacies. Such legislated quotas are increas-

ingly common in democracies across the world, as well as the Mexican case on which this paper focuses.

Finally, a third explanation concerns the competitive nature of different candidate selection methods. Hinojosa (2012) argues that exclusive and centralized methods avoid the problem of self-nomination. This refers to the underlying gap in the likelihood of seeking elected office between men and women. The disparity in rates at which men and women run for office is well documented (Lawless and Fox 2010), with experimental evidence showing that women may be averse to electoral competition even when accounting for abilities and risk aversion (Kanthak and Woon 2015). Designation by party leadership eschews the need for aspirants to throw their hat into the ring and instead the party leadership can directly recruit candidates, often with greater consideration of the overall diversity of candidacies as discussed above.

Along with the gendered implications of different selection methods outlined above, the influence of parties on the candidate emergence process is further complicated by when and where certain methods are deployed. These selection methods are not decided at random by parties. Leadership must take into account their own desire to select candidates suited for the electoral and political environment of the general election as well as party members' and activists' desire to exercise local influence over candidacies. Parties may have an incentive to use primaries with members serving as the selectorate in their safest seats so as to satisfy their activist base. Conversely, parties may designate candidates in areas where they are weak and few if any aspirants may want to bother with a primary for a likely or possible defeat (Bruhn and Wuhs 2016). Combining this insight with the discussion above on the effects of different methods, there is a tendency for methods that disadvantage female aspirants to be used in the most desirable districts for ambitious office seekers. Designation, which can produce more female candidacies, is used in less desirable districts. A party's decisions

about selection methods can greatly influence the final composition of candidacies, reshaping the pool of aspirants that organically sprouted across different districts. In this way, parties candidate selection methods may counteract or obfuscate the role model effects present at earlier stages of the candidate emergence process. Therefore, researchers may fail to detect role model effects when candidacies are the outcome of interest.

Conversely to the discussion above is the potential for contagion effects in the candidate selection decisions of parties. The contagion effect is when a party increases the number of women among its candidates in response to competitor parties nominating more women (Matland and Studlar 1996). In doing so, it hopes to stay competitive with voters who may be swayed by appeals for descriptive representation. This concept has been extended to include potential cross-institutional contagion effects (e.g. female executive leading to more women in the courts) (Thames and Williams 2013). Contagion effects have the potential to amplify or account for role model effects at the level of candidacies, since female officeholders demonstrate the electibility of women and competitor parties may be moved to nominate more women. However, the electoral system has been found to be an important conditional factor for any contagion effects. Matland and Studlar (1996) find that contagion effects are more likely in proportional representation (PR) systems than single-member plurality systems. In the former, parties can take into account the gender composition of multiple candidates on a slate while in the latter, parties may be too risk-averse to select their sole candidate on the grounds of gender. Since, this paper focuses on the single-member tier of Mexico's legislative elections, it is unlikely that contagion effects will amplify or account for role model effects at the candidacy stage. Moreover, I focus on role model effects from a single institution (Mexico's Chamber of Deputies) and leave an analysis of cross-institutional contagion effects to future research. However, this is not to say

that contagion effects are not likely in other contexts or situations.<sup>2</sup>

## Hypotheses and Data

To demonstrate the importance of political parties for role model effects, I focus on the case of Mexico's Chamber of Deputies. This is a particularly useful and critical case for examining role model effects for three reasons. First, strict term limits mean that at each legislative election there are no incumbents running for the same seat. Previous studies examining the causal effect of female officeholders on the future electoral prospects of women in a district have been unable to disentangle the effects of office holding and personal incumbency advantage (Bhavnani, 2009; Broockman, 2014), or indicate the effects are solely driven by incumbency with a negative effect on newcomers (Bhalotra et al. 2018). Since Mexican deputies were constitutionally barred from seeking immediate reelection in the period under study, any observed effect of a woman winning office at time  $t-1$  on the likelihood of women running in the district at time  $t$  can be attributed solely to female office holding and not personal incumbency advantage. Moreover, term limits also serve to remove an institutional barrier to the proliferation of female candidates and officeholders (Schwindt-Bayer 2005). Without the impediment of an incumbent running for reelection, women inspired to run for office should face one less institutional barrier. Second, over the previous two decades, Mexico has adopted increasingly strict gender quotas for legislative candidacies (Piscopo 2016). This creates conditions where it may be in the interest of parties to facilitate role model effects (with engagement beginning in the mass public and extending to the candidate level). Third, despite the rapid expansion of women's numerical representa-

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<sup>2</sup>To further explore the potential for contagion effects, I provide a cursory analysis of Mexican legislative candidacies discussed in the appendix and summarized in Table A11 of the appendix. I find that contagion effects are not likely working in tandem with role model effects and in fact may work in the opposite direction.

tion in the federal legislature, they remain significantly underrepresented in local and executive posts. Therefore, there is little evidence that Mexican society has achieved a necessary level of women's political inclusion such that one would not expect role model effects. For these reasons, Mexico is a case where one should expect to observe role model effects. And to the extent that there are no such observable effects, it is incumbent on researchers to understand why this would not be the case in an otherwise accommodating test of the theory.

Since Mexico is a case likely conducive to the presence of role model effects from female officeholders, I expect such effects are more likely to be found at earlier stages of the candidate emergence process. As discussed in the previous section, at these stages parties have yet to exercise their gate-keeping authority. Therefore, my first hypotheses are that (H1) a woman winning in a district will increase the political engagement of women in the district and (H2) a woman winning in a district will increase the number of women who seek the a party's nomination in the subsequent election. However, after these stages, the influence of parties, especially in their decisions about candidate selection procedures, is the predominant factor shaping the composition of candidates. While there may have been role model effects at the grassroots levels of political engagement, parties' influence can completely counteract or obfuscate such effects at the candidacy stage. For this reason, my third hypothesis is that (H3) a woman winning in the district will not increase the number of female candidacies in subsequent elections.

I first test for role model effects at the level of the mass public. To do so, I use survey data from the 2012 Mexico Panel Study which surveyed respondents prior to and after the 2012 federal elections.<sup>3</sup> The dependent variables of interest are taken

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<sup>3</sup>Senior project personnel for the Mexico 2012 Panel Study include (in alphabetical order): Jorge Domínguez, Kenneth Greene, Chappell Lawson, and Alejandro Moreno. Funding for the study was provided by the Centro de Estudios Sociales y de Opinión Pública de la Cámara de Diputados (CE-SOP) and the Secretaría de Gobernación; fieldwork was conducted by DATA OPM, under the direction

from items in the post-election wave that ask about political engagement. The first is post-election interest in politics as measured from a survey item asking “How much interest do you have in politics: a lot, some, a little, or none?” Responses are coded to range from 0 (none) to 1 (a lot). The second is the frequency of engaging in political discussion, which is measured from an item asking, “How often do you talk about politics with other people?” Responses are coded to range from 0 (never) to 1 (daily). The main independent variable is an indicator for whether a woman won in the district in the 2012 legislative elections. The panel structure of the data allows me to control for pre-election interest in politics as well as a series of demographic variables and the respondent’s pre-election vote choice (with not voting as the reference category). Since frequency of discussing politics was not asked in the first wave, I am unable to include a lagged dependent variable for that model. However, I can control for pre-election interest in politics. To examine the gender-specific impact theorized by the role model effects literature, I estimate separate models for men and women.<sup>4</sup>

The second stage of my analysis is of potential role model effects among aspirants for party nomination. Studying the dynamics of candidate emergence at the level of pre-candidacies, when aspirants for office seek the nomination of parties, is made difficult in the comparative context by the tendency of parties to obscure what can be very contentious intra-party contests, prompting scholars to refer to this as ‘the black box’ (Kenny and Verge 2016). Given these constraints, I focus on the aspirants for office of one party, the Partido Acción Nacional (PAN), in the lead-up to the 2015 federal elections. This case provides the most transparent information about the candidate selection processes for legislative races. Although I focus on the PAN, the conclusions

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of Pablo Parás.

<sup>4</sup>An alternative strategy would be to pool both men and women together and include an interaction term between gender and the indicator for a woman winning in the district. I opt for sub-setting the data in this way, which is equivalent to a fully interacted model. However, I report the results of these pooled analyses in Table A2 and Figure A1 of the appendix.

from this analysis should be applicable to other major parties in Mexico. The PAN has been both in government and opposition in the decade leading up to the period of study. Mexico is also characterized by substantial regionalization in the support bases of different parties. At the same time, all parties have an incentive to field candidates in every district as a result of how seats are distributed in the PR tier. This means that for the PAN, like all major parties, there will be wide variation in the desirability for aspirants to seek the nomination across seats. PANista aspirants will face similar choices as aspirants for other major parties. From party documents, I collected data about the method of selection and the list of pre-candidates for each of the single member districts.<sup>5</sup> I coded the number of women and the number of men for each district where the PAN held a primary to select candidates.<sup>6</sup> These counts for each district serve as the dependent variables for the aspirant-level analyses.

The independent variables of interest are an indicator for whether a woman won in the district at election  $t-1$  and the share of female winners in neighboring electoral districts at election  $t-1$ . Districts are neighbors if they share a border. Therefore if a district is bordered by five other districts, I take the the total number of women candidates in those five districts and divide that number by the total number of all candidates in those five districts in the previous election. This second variable is meant to capture any potential spatial effects, which have been the focus of much of the previous work in role model effects on office-seeking behavior (Broockman 2014; Gilardi 2015). To the extent that there are role model effects on the likelihood that a woman seeks a party's nomination, I expect to find positive effects for these variables. I control for the electoral value of the district by including an indicator for whether the district is a safe PAN seat. A district is categorized as being a safe PAN seat in

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<sup>5</sup>Documents from the party's Electoral Organizing Committee are available at <http://www.pan.org.mx/estrados-electronicos-coe-archivo/>.

<sup>6</sup>I do not have data on districts where the party simply designated a candidate, since there is no self-nomination by pre-candidates in those cases.

2015 if the party won the seat in the 2006, 2009, and 2012 elections. Along with these political variables, it is also important to control for other characteristics of a legislative district that may influence both the probability a woman won in 2012 and the number of women that seek the party nomination in 2015. One such socio-economic factor that has been found to be consequential for the representation of women in politics is female labor force participation (Iversen and Rosenbluth 2008, Stockemer and Byrne 2012). I control for the percent of women who are economically active in the legislative district. This data comes from the Census Statistics at Geoelectoral Levels dataset from the National Institute of Statistics and Geography (INEGI) which provides information from the 2010 census aggregated to the level of federal legislative districts.<sup>7</sup> I expect that greater rates of women's workforce participation will be associated with more women emerging as aspirants for office.

Finally, I test for potential role model effects at the level of candidacies in legislative elections. The dependent variable is the share of female candidates in a district.<sup>8</sup> Mirroring the aspirant-level analyses, the main independent variables of interest are an indicator for whether a woman won in the district at election  $t-1$  and the share of female winners in neighboring electoral districts at election  $t-1$ . Together these variables are meant to test for any role model effects both within and across districts (via spatial diffusion). The data consists largely of electoral returns and candidate lists made available by the National Electoral Institute (INE) of Mexico. I use data from the 2006, 2009, 2012, and 2015 congressional elections since these featured the same single-member electoral district boundaries. Using the candidate lists provided by INE, I coded the gender for each of the 7,482 candidates in these four elections

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<sup>7</sup>Economically active persons are defined as those who work, had a job but are not currently working, or were seeking work in the reference week.

<sup>8</sup>It should be noted that given Mexico's mixed electoral system, which distributes votes in the proportional representation (PR) tier based on votes in the single member districts (SMDs), parties and coalitions have an incentive to and do field candidates in every congressional district so as to maximize the number of votes for the larger PR tier districts.

based on their name. Since there are 300 single member districts, the total number of district races at time  $t$  that can be influenced by an election at time  $t-1$  is 900.

## Results

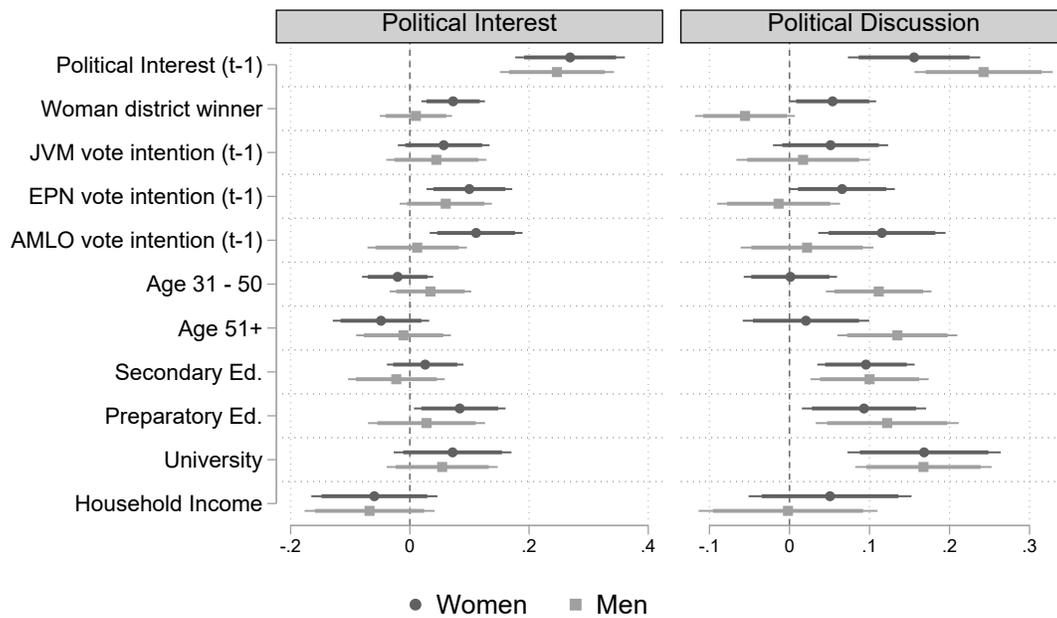
I begin with an analysis of the earliest stages of political engagement in the candidate emergence process. The results of these models of post-election political engagement presented in Figure 2 demonstrate that there is a positive and statistically significant role model effect.<sup>9</sup> Having a woman win the legislative district has a positive effect on the self-reported political interest of Mexican women, controlling for pre-election political interest, demographic variables, and pre-election political preferences. There is no such effect in the model of post-election political engagement of Mexican men. These results for political interest are echoed in the models of how frequently one talks about politics with others. Among women, a woman winning the district is associated with increased levels of political discussion in the post-election period. This effect is only slightly outside the threshold of conventional levels of statistical significance (p-value = .052). There is no such positive effect among men. In fact, the estimated effect is negative and marginally statistically significant (p-value = .08). Taken together, these results provide evidence that female officeholders do have a positive effect on the political engagement of women at the earliest stage of the candidate emergence process (political activation among the mass public).

Beyond these baseline results, I also conducted an additional analysis that includes an interaction of the indicator of a woman winning the district with a respondent's level of political information in the model of post-election political interest. To the extent that there indeed is a role model effect from a woman winning the local congressional

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<sup>9</sup>Table A1 in the appendix summarizes the estimates and fit statistics for these models.

Figure 2: Models of Post-Election Political Engagement by Gender



Source: Mexico Panel Study, 2012. Notes: Points represent coefficients for models of post-election political interest. Thick lines indicate 90% confidence interval. Thin lines indicate 95% confidence interval.

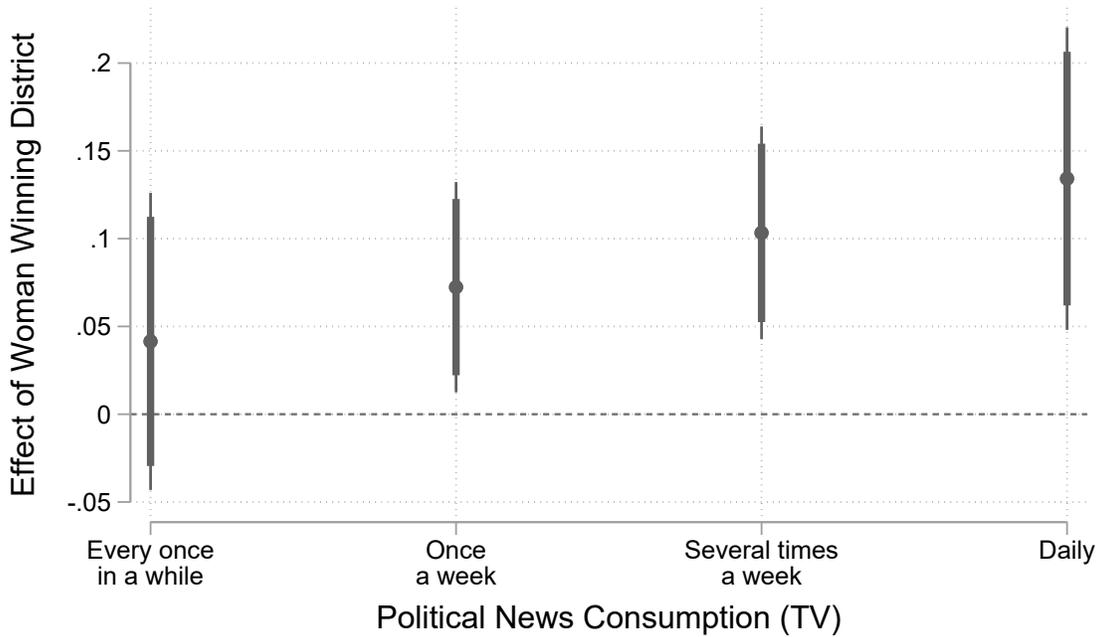
seat, one would expect that this effect is stronger among those who are most politically informed and therefore most likely to have followed the race. Political information is measured from a survey item asking, “How often do you follow information and news about the election campaigns on television?” Responses include every once in a while, once a week, several times a week, and daily. Figure 3 summarizes the results from this interactive model for the subsample of women.<sup>10</sup> It shows that the effect of a woman winning the district on political interest increases with the frequency of a woman’s political news consumption. There is no such moderating effect found among men. At no level of political information is the effect of a woman winner statistically significant among the male subsample.<sup>11</sup> These findings provide greater support for the presence

<sup>10</sup>Table A3 in the appendix summarizes the estimates and fit statistics for this model as well as the corresponding model for men.

<sup>11</sup>The results for the male subsample of the interaction analysis are plotted in Figure A2 of the appendix.

of role model effects among the the mass public from female legislative winners.<sup>12</sup> Do these role model effects carry on to the next stage of the process, when women seek the nomination of parties for elected office? I address this question next.

Figure 3: Effects of Woman Winning District on Political Interest Moderated by Political Information



Source: Mexico Panel Study, 2012. Notes: Thick lines indicate 90% confidence interval. Thin lines indicate 95% confidence interval.

To test for role model effects at the level of aspirants for office, I estimate two poisson regression models. One for the count of female pre-candidates in a district and another for the count of male pre-candidates. Table 1 summarizes the results of these models.<sup>13</sup> The first column demonstrates that there is evidence for role model effects at

<sup>12</sup>Along with the results presented here, I also conducted an interactive analysis that substituted political information with copartisanship with the winning candidate as the moderator of interest. To the extent that role model effects are present among the mass public, one would expect they are strongest among copartisans of the winner. Indeed, I do find that the role model effect is stronger among copartisans with the winner. However, there are very few copartisans in the second wave of the panel (among women, 86 weak copartisans and 81 strong copartisans in total). I exercise caution in drawing strong conclusions from such observations. Results for this analysis can be found in Table A4 and Figure A3 of the appendix.

<sup>13</sup>The reason the two models have a differing number of observations is because the PAN reserved

the level of aspirants for office. Having a woman win the district in the previous election as well as an increase in the share of women who won in neighboring districts leads to a higher count in the number of female pre-candidates. This association is statistically significant for both variables. As expected, there is no such effect for the number of male pre-candidates. Safe districts draw a higher number of aspirants for office among both genders, though the estimated coefficient for women is not statistically significant. Finally, women's workforce participation rate in the district is positively associated with the number of female pre-candidates. This is in line with previous work that finds that the integration of women into the economic sphere has positive effects on their representation in politics (Iversen and Rosenbluth 2008, Stockemer and Byrne 2012). There is no significant effect of women's workforce participation on the number of male pre-candidates.

To provide an interpretation of the substantive significance of these effects, Figure 4 plots the predicted number of pre-candidates as a function of whether a woman won the district previously. There are two takeaways from this graph. First, the role model effect among women is substantively meaningful. A district where a woman won previously has an expected pre-candidate count of .96 compared to a predicted count of .58 for a district with a male winner in the last election.<sup>14</sup> For reference, the average number of women pre-candidates in a district is around .7. Second, the figure demonstrates a persistent gap in political ambition between men and women, even when considering the role model effect. This is in line with previous work showing that gaps in women's descriptive representation begin with gaps in ambition for seeking office (Lawless and Fox 2010). This also underscores the importance of role model

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some primaries for only female pre-candidates in 2015. The results here are robust to including an indicator for this reserved primary system in the model of the number of female pre-candidates. Those results are summarized in Table A6 of the appendix.

<sup>14</sup>Holding the share of neighboring women winners ( $t-1$ ) at its mean value and the safe PAN indicator at its mode of zero.

Table 1: Poisson Model of Number of Pre-Candidates in a District

	(1)	(2)
	No. of Women	No. of Men
Woman District Winner 2012	0.517* (0.170)	0.0940 (0.164)
% Women among Neighbor Winners 2012	0.677* (0.343)	0.277 (0.301)
Safe PAN District	0.412 (0.285)	0.442* (0.218)
% Women Economically Active	2.854* (1.036)	0.639 (0.857)
Constant	-1.735* (0.405)	0.00423 (0.332)
Observations	224	142
Pseudo $R^2$	0.038	0.013

Standard errors in parentheses

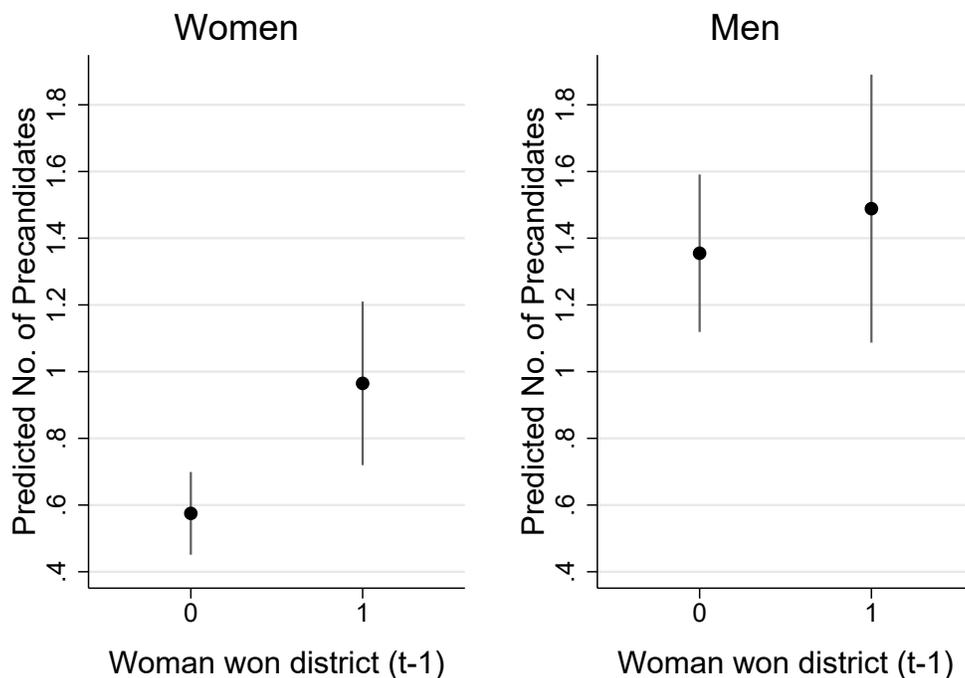
+  $p < 0.10$ , \*  $p < 0.05$

effects for chipping away at this gap in political ambition.<sup>15</sup>

Finally, I test for potential role model effects at the level of candidacies in Mexican legislative elections. I utilize two widely used estimation methods for time-series cross-sectional data: a district fixed effects model, and Beck and Katz's (1995) OLS with panel-corrected standard errors. I also control for the partisan affiliation of the district winner at the previous election (PAN as the reference category) and election year dummies. These election year dummies are particularly important in controlling for the effect of gender quotas that were strengthened between each election. Table 2 reports the results of these different models. In no case is there a significant positive

<sup>15</sup>I also conducted a similar analysis to the one in Table 1 that isolates for simply partisan effects. Rather than any woman winning in the district or neighboring districts, that analysis includes whether a PANista woman won in 2012 and whether a PANista woman won in a neighboring district in 2012. If partisan motivations are driving role model effects among aspirants, I should see stronger effects in this model. I find null results for both partisan role model variables. Results are reported in Table A7 of the appendix. This indicates that it is not only PANista female winners that motivate PANista aspirants.

Figure 4: Role Model Effects on Aspirants for PAN Nomination



effect from a female officeholder on the percent of candidates who are women in the next election.<sup>16</sup> In the fixed effects model, the coefficient for having a woman win in the previous election is in fact negative and statistically significant, but the statistical significance does not appear robust across models. The sign on the coefficient for the spatial role model effect also flips across models. It is clear from these results that there is at least no statistically positive effect from female officeholders (either within districts or from neighboring districts) on the share of female candidates in a district.<sup>17</sup>

<sup>16</sup>One possibility is that any effects of candidacies from female officeholders is entirely within-parties, rather across all parties as tested here. To investigate this possibility I conduct additional analysis only for the PAN, which is a useful case since it is the only major party in this period that did not engage in electoral alliances with other parties. I substitute the main variables of interest with an indicator of whether a PANista woman won the district and the percent of PANista women among the neighboring winners. The dependent variable has been changed to an indicator of whether the PAN nominated a woman in that election. The results, reported in Table A9 in the appendix, show that there are no role model effects in this strictly partisan model. In fact, the effect for previous female PANista winner in the district is negative and significant at the .05 level.

<sup>17</sup>Count models with the number of female candidates (rather than the share) as the dependent

Table 2: Models of the Percent of Female Candidates in a District (2009-2015)

	(1)	(2)	(3)
	% Women	% Women	% Women
% Women (t-1)	0.176 (0.269)	0.109 (0.282)	
% Women among Neighbor Winners (t-1)	0.0750 (0.0549)	-0.0129 (0.0268)	0.0141 (0.0387)
Woman District Winner (t-1)	-1.480 (1.626)	-1.524 (1.641)	-7.892*** (1.811)
PRD and Left	1.221 (1.808)	-0.265 (1.615)	1.990 (2.938)
PRI-PVEM	5.832* (2.663)	0.766 (1.116)	3.043 (2.109)
year=2012		10.12*** (0.532)	9.801*** (1.653)
year=2015		17.65*** (3.328)	18.82*** (1.713)
Constant	30.44** (9.317)	28.07*** (8.166)	30.66*** (1.741)
Observations	900	900	900
$R^2$	0.052	0.143	0.240

For models (1) and (2), Prais-Winsten regression coefficients with panel corrected standard errors in parentheses. For model (3), district dummies are not reported.

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

The preceding series of empirical results demonstrate that null findings at the candidate level do not preclude overall role model effects in a political system. Using the case of Mexico, I demonstrated that role model effects are observable at earlier stages of the candidate emergence process (in the mass public, and among aspirants for party nominations). As Figure 1 at the start of the paper illustrates, I argue that political parties, in their influence over the candidate selection process, play an important role in whether role model effects are observable at the final and crucial stages of the candidate emergence process (when citizens stand for public office in a general election). In the next section, I use data on the PAN's 2015 selection methods to provide an explanation for why candidate selection methods play an important role in obscuring the presence of role model effects in Mexican legislative elections.

## Candidate Selection Methods

Crucial for this paper's focus on the role of parties in facilitating or attenuating the political engagement effects from female officeholders is how parties' strategic considerations interact with the gendered consequences of selection methods. Previous work has found that the major Mexican parties make strategic choices about their candidate selection methods in response to the electoral environment (Langston 2006; Wuhs 2006, 2008). Research on the PAN, the party on which the aspirant-level analyses focused, finds that the party's membership has traditionally favored decentralized primaries with voting open only to party members and activists. This has resulted in patterns where the party tends to favor using closed primaries in its strongest areas with the greatest concentration of members and activists (Bruhn and Wuhs 2016). A similar pattern holds for the PRD, the main leftist party up until the 2015 elections. The variable and controlling for the total number of candidates produce similar results.

PRI has also favored more decentralized methods, such as state-level conventions or allowing governors to choose candidates, in more competitive areas (Langston 2006). If the type of selection method that parties employ in their strongest districts tends to be more open and decentralized, then these are precisely the types of methods that disfavor the emergence of female candidates. The selection method choices of the party can then greatly reshape the composition of candidates for office from the original pool of aspirants for the party's nomination.

To illustrate this dynamic, I focus on the candidate selection methods of the PAN in 2015. While I focus on this party since it most directly builds on the aspirant-level analyses as well as provides the best data on selection methods, the discussion above highlights how the other major Mexican parties face similar constraints and choices. The PAN used four different methods for selecting candidates across the 300 SMDs: Closed primaries (election by members), designation, closed primaries reserved for female pre-candidates, and open primaries.<sup>18</sup> The share of women nominees to come out of each selection method was 18%, 60.5%, 94%, and 50% respectively.<sup>19</sup> This pattern is in line with previous work showing that designation is more conducive for female candidates compared to primaries. Although women seem to perform better than prior research would expect in open primaries, this selection method was only used in 4 districts in 2015, so one should be cautious to conclude that PANista women fare well in open legislative primaries.

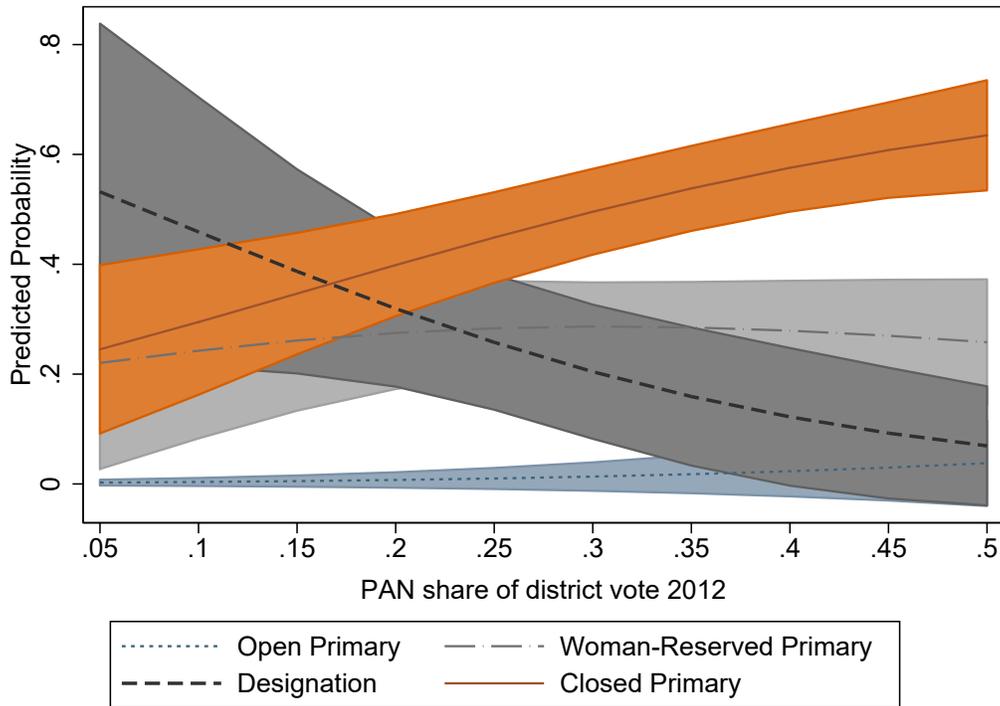
Having established that the PAN's candidate selection methods had clear consequences for the likely gender of the nominee, such that traditional (non-reserved) primaries disfavor women and designation favors women, I now show how this maps onto

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<sup>18</sup>The breakdown of how frequently each method was used across the 300 single member districts is as follows: Closed primary - 138, designation - 76, woman-reserved primary - 82, open primary - 4.

<sup>19</sup>The reason the share is only 94% percent for primaries reserved for women is that in cases when no pre-candidate emerges in a primary the party simply designates a candidate, which can be man. In both the reserved and non-reserved primaries, there are instances when no pre-candidate emerges in districts where the party is nearly guaranteed to lose.

Figure 5: PAN Electoral Performance in 2012 and Party Selection Method in 2015



electoral competition resulting in a disruption of role model effects. Figure 5 presents the predicted probabilities from a multinomial logit model of the candidate selection method used by the PAN in 2015, as a function of the party’s share of the district vote in the previous election.<sup>20</sup> This is the sole predictor in the model. This figure shows that in districts where the PAN fared best in 2012, the party is more likely to utilize selection methods that disfavor women (such as closed primaries). Conversely, the party is much more likely to use selection methods that favor women in districts where the party has performed very poorly in the past (such as designation).<sup>21</sup> The relationship between the use of reserved primaries (which was a new method employed

<sup>20</sup>Table A10 summarizes the estimates for the model used to plot Figure 5.

<sup>21</sup>Figure A4 in the appendix plots the distribution of the PAN’s electoral performance in 2012 across the single member districts. One should note that given Mexico’s multiparty system, parties rarely receive more than 50% of a district’s votes. The first-place party in a district typically wins with a plurality considerably below the 50% mark.

in 2015) and previous PAN share is flatter than the associations between closed primaries/designation and PAN vote share. Moreover, as the aspirant-level analyses in the previous section demonstrated, both men and women are more likely to seek out nominations in areas where the party performs well rather than serve as sacrificial lambs. These empirical patterns taken together, the gendered effects of selection methods and the party's preference to utilize methods disfavoring women in its most valuable districts, result in a substantial dampening of any role model effects immediately prior to the candidate stage. While women may have been activated by the inspiration of a female officeholder at earlier stages of the candidate emergence process (as I found above), parties' choices about selection methods serve as a significant bottleneck and wash out any such pattern at the candidate level. Ultimately, these choices by party leadership serve to obfuscate patterns in the political behavior of women in the party's grassroots.

## **Conclusion**

The findings described in this paper highlight that role model effects operate at different levels. They may be absent empirically in one stage while prominently visible in others. I test for role model effects from female officeholders at different stages of the candidate emergence process in Mexican legislative elections. I find no evidence of role model effects at the level of candidacies. However, unlike previous research, I do not conclude that there is no overall effect, but instead I also examine earlier stages of the candidate emergence process. I find that there is evidence for role model effects at the level of the mass public and (focusing on one of the major parties) at the stage of pre-candidacies (those who are seeking a party's nomination for office). While I find evidence for role model effects at these early stages in the case of Mexico, that does not mean they will

be evident in any context. To the extent that a context is conducive to role model effects at all, we should expect them there. In my discussion of the Mexican case, I laid out why one should expect to see role model effects given its institutional and sociological features. Liu (2018), for example, finds evidence that there are no role model effects amongst the mass public from female legislators in Asia. She explains this null finding in light of the specific cultural context. What this paper has aimed to do is advance a framework for studying potential role model effects that take a wider view, rather than concluding that they will always be found at earlier stages of the candidate emergence process. Taking into account the wider process of political engagement will aid researchers in developing explanations for null findings in certain contexts and at certain levels of political engagement.

A clear avenue for future research is to begin developing a more comprehensive assessment of role model effects using the framework of this paper across different contexts. This exercise will allow researchers to begin understanding the limits of role model effects and the conditions that facilitate or diminish them. Much of this work does not necessarily entail new data collection, but instead piecing together different studies that have examined the role of female officeholders at a single stage of political engagement.

This paper has demonstrated that in order to provide a full assessment of the presence of role model effects in a political system, researchers should examine the larger candidate emergence process. Mixed results in tests for role model effects from female officeholders should avoid a narrow focus on the candidate level for two reasons. First, this may lead to the erroneous conclusion that female officeholders do not provide an inspiration for women to enter politics in a given political system. It may simply mean that this effect is not observable at the final stage of candidacies in the pipeline starting from the general population and ending with party nominees for office. Second,

a broader examination of the candidate emergence process may help researchers pinpoint where in the different stages of candidate emergence is there no evidence for role model effects. This can help identify reasons for why a role model effect is attenuated in a given context. This point leads to the second contribution of the paper, which is to place a spotlight on parties and how they may facilitate or attenuate role model effects. As I have argued and shown using the case of Mexico and the PAN, party decisions, especially with respect to candidate selection, can greatly influence the makeup of candidates for office. This has the potential of obscuring any role model effects. Researchers who find null results (or positive results for that matter) should consider the potential influence of parties in creating the conditions for or against role model effects from female officeholders.

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Table A1: OLS Models of Post-Election Political Engagement

	(1)	(2)	(3)	(4)
	Interest Women	Interest Men	Discussion Women	Discussion Men
Political Interest (t-1)	0.269* (0.0468)	0.247* (0.0487)	0.156* (0.0421)	0.243* (0.0439)
Woman district winner	0.0726* (0.0271)	0.0101 (0.0309)	0.0539+ (0.0277)	-0.0556+ (0.0317)
JVM vote intention (t-1)	0.0568 (0.0392)	0.0444 (0.0427)	0.0514 (0.0366)	0.0170 (0.0424)
EPN vote intention (t-1)	0.0999* (0.0366)	0.0602 (0.0394)	0.0658+ (0.0335)	-0.0136 (0.0391)
AMLO vote intention (t-1)	0.111* (0.0396)	0.0123 (0.0424)	0.116* (0.0405)	0.0220 (0.0422)
Age 31 - 50	-0.0205 (0.0304)	0.0346 (0.0348)	0.00113 (0.0297)	0.112* (0.0336)
Age 51+	-0.0485 (0.0412)	-0.0107 (0.0404)	0.0206 (0.0402)	0.135* (0.0381)
Secondary Ed.	0.0257 (0.0326)	-0.0227 (0.0412)	0.0956* (0.0310)	0.100* (0.0376)
Preparatory Ed.	0.0838* (0.0391)	0.0280 (0.0500)	0.0932* (0.0395)	0.122* (0.0455)
University	0.0717 (0.0503)	0.0543 (0.0473)	0.168* (0.0488)	0.167* (0.0433)
Household Income	-0.0595 (0.0539)	-0.0676 (0.0555)	0.0507 (0.0518)	-0.00179 (0.0568)
Constant	0.224* (0.0485)	0.310* (0.0564)	0.165* (0.0451)	0.198* (0.0524)
Observations	486	379	485	381
$R^2$	0.140	0.106	0.100	0.154

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$

Table A2: OLS Models of Post-Election Political Engagement: Pooled with Gender-Woman Winner Interaction

	(1)	(2)
	Interest	Discussion
Political Interest (t-1)	0.256* (0.0338)	0.189* (0.0304)
Woman=1	-0.0421+ (0.0240)	-0.0763* (0.0230)
Woman district winner=1	0.00552 (0.0304)	-0.0580+ (0.0313)
Woman=1 × Woman district winner=1	0.0694+ (0.0406)	0.113* (0.0413)
JVM vote intention (t-1)	0.0546+ (0.0288)	0.0414 (0.0276)
EPN vote intention (t-1)	0.0823* (0.0267)	0.0309 (0.0255)
AMLO vote intention (t-1)	0.0657* (0.0290)	0.0772* (0.0290)
Age 31 - 50	0.00266 (0.0225)	0.0488* (0.0222)
Age 51+	-0.0276 (0.0287)	0.0711* (0.0279)
Secondary Ed.	0.00749 (0.0253)	0.0979* (0.0239)
Preparatory Ed.	0.0584+ (0.0310)	0.100* (0.0301)
University	0.0681* (0.0339)	0.166* (0.0318)
Household Income	-0.0643+ (0.0389)	0.0320 (0.0381)
Constant	0.283* (0.0400)	0.221* (0.0376)
Observations	865	866
$R^2$	0.122	0.120

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$

Figure A1: Interactive Effect of Gender and Woman Winning District on Political Engagement

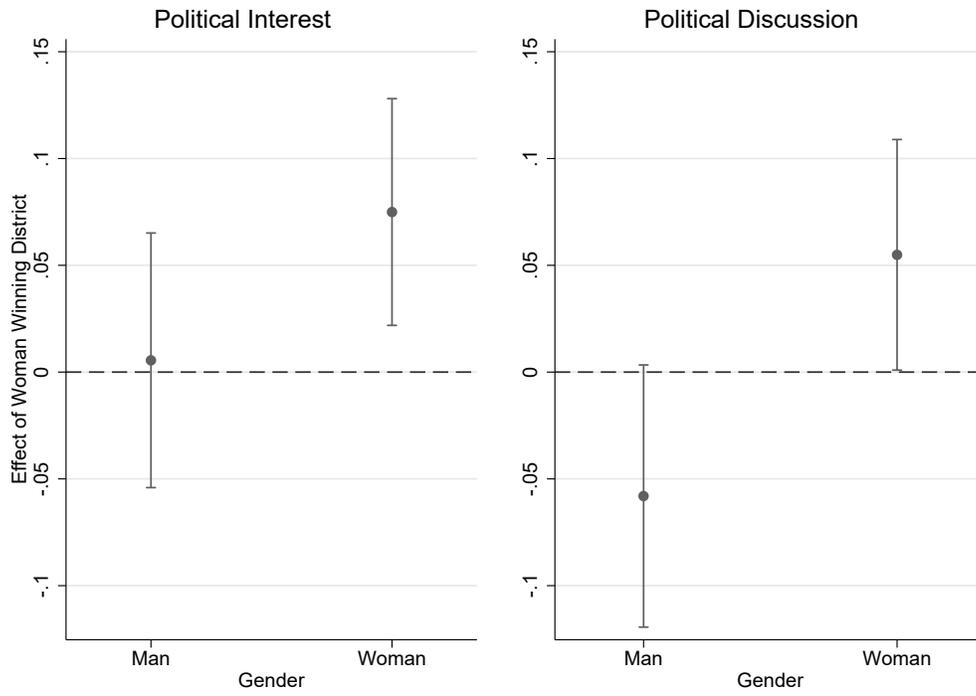


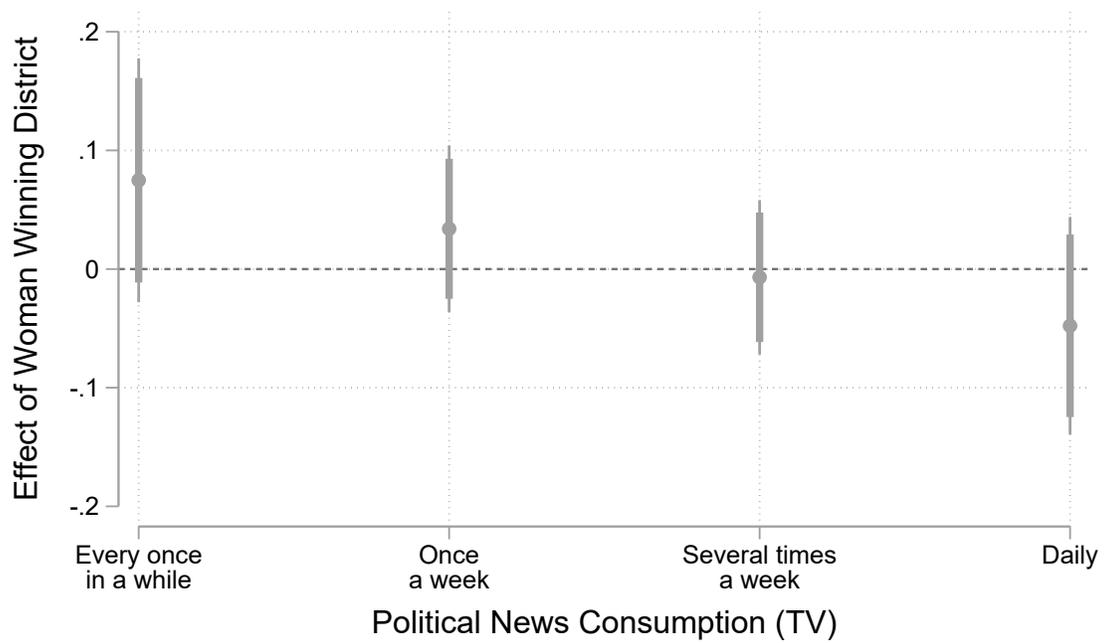
Table A3: OLS Models of Post-Election Political Interest: Interactive Effect of Political Information

	(1)	(2)
	Women	Men
Political Interest (t-1)	0.244* (0.0479)	0.236* (0.0515)
Political News Consumption (t-1)	0.0101 (0.0133)	0.0140 (0.0155)
Woman district winner=1	0.0106 (0.0610)	0.116 (0.0738)
Woman district winner=1 × Political News Consumption (t-1)	0.0309 (0.0218)	-0.0409 (0.0251)
JVM vote intention (t-1)	0.0836* (0.0417)	0.0510 (0.0442)
EPN vote intention (t-1)	0.126* (0.0389)	0.0554 (0.0418)
AMLO vote intention (t-1)	0.132* (0.0429)	0.0107 (0.0439)
Age 31 - 50	-0.0209 (0.0321)	0.0212 (0.0356)
Age 51+	-0.0645 (0.0434)	-0.0422 (0.0421)
Secondary Ed.	0.0232 (0.0339)	-0.0175 (0.0429)
Preparatory Ed.	0.0867* (0.0421)	0.0237 (0.0517)
University	0.0523 (0.0515)	0.0552 (0.0500)
Household Income	-0.0590 (0.0559)	-0.0614 (0.0575)
Constant	0.185* (0.0636)	0.290* (0.0701)
Observations	441	353
$R^2$	0.151	0.104

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$

Figure A2: Effects of Woman Winning District on Political Interest Moderated by Political Information (Men)



Source: Mexico Panel Study, 2012. Notes: Thick lines indicate 90% confidence interval. Thin lines indicate 95% confidence interval.

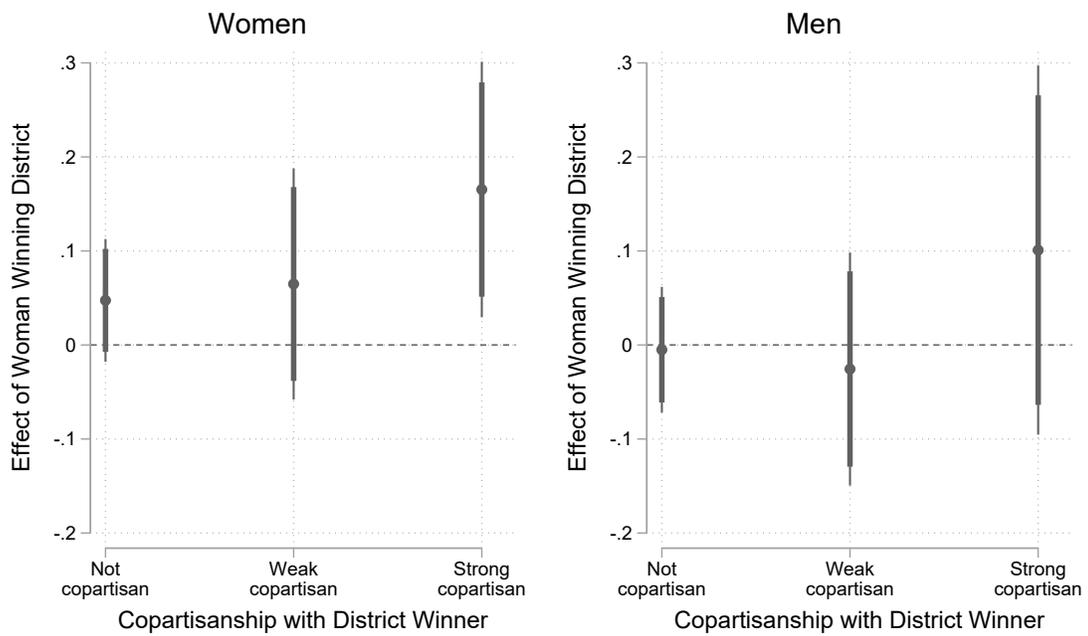
Table A4: OLS Models of Post-Election Political Interest: Interactive Effect of Copartisanship with District Winner

	(1)	(2)
	Women	Men
Political Interest (t-1)	0.275*	0.248*
	(0.0457)	(0.0482)
Age 31 - 50	-0.0329	0.0249
	(0.0308)	(0.0341)
Age 51+	-0.0662	-0.0258
	(0.0414)	(0.0413)
Secondary Ed.	0.0208	-0.0192
	(0.0324)	(0.0416)
Preparatory Ed.	0.0916*	0.0209
	(0.0398)	(0.0503)
University	0.0719	0.0510
	(0.0519)	(0.0475)
Household Income	-0.0640	-0.0497
	(0.0531)	(0.0559)
Weak Copartisan	0.0411	-0.00770
	(0.0441)	(0.0466)
Strong Copartisan	0.0688	0.0230
	(0.0451)	(0.0503)
Woman district winner=1	0.0474	-0.00505
	(0.0332)	(0.0340)
Weak Copartisan $\times$ Woman district winner=1	0.0174	-0.0205
	(0.0706)	(0.0721)
Strong Copartisan $\times$ Woman district winner=1	0.118	0.106
	(0.0767)	(0.104)
Constant	0.283*	0.340*
	(0.0448)	(0.0547)
Observations	486	379
$R^2$	0.140	0.109

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$

Figure A3: Effects of Woman Winning District on Political Interest Moderated by Copartisanship



Source: Mexico Panel Study, 2012. Notes: Thick lines indicate 90% confidence interval. Thin lines indicate 95% confidence interval.

Table A5: Descriptive Statistics for 2012 Panel Data of Mass Public

	mean	sd	min	max	count
Political Interest	0.43	0.30	0	1	889
Political Interest (t-1)	0.44	0.32	0	1	1281
Political Discussion	0.42	0.29	0	1	889
Woman district winner	0.30	0.46	0	1	1288
JVM vote intention (t-1)	0.21	0.41	0	1	1288
EPN vote intention (t-1)	0.32	0.47	0	1	1288
AMLO vote intention (t-1)	0.22	0.41	0	1	1288
age_group==Age 30 and under	0.33	0.47	0	1	1288
age_group==Age 31 - 50	0.42	0.49	0	1	1288
age_group==Age 51+	0.24	0.43	0	1	1288
edr==None or Primary Ed.	0.32	0.47	0	1	1287
edr==Secondary Ed.	0.31	0.46	0	1	1287
edr==Preparatory Ed.	0.21	0.40	0	1	1287
edr==University	0.16	0.37	0	1	1287
Household Income	0.46	0.27	0	1	1260
Woman	0.52	0.50	0	1	1288
Political News Consumption (t-1)	2.78	1.26	1	4	1162
Copartisanship with Winner (t-1)	0.51	0.77	0	2	1288

Table A6: Poisson Model of Number of Pre-Candidates in a District: Excluding Districts with Women-Only Primaries

	(1) No. of Women
Woman District Winner 2012	0.368* (0.170)
% Women among Neighbor Winners 2012	0.577+ (0.351)
Safe PAN District	0.682* (0.290)
% Women Economically Active	3.540* (1.084)
Women-only Primary	1.770* (0.188)
Constant	-2.927* (0.441)
Observations	224
Pseudo $R^2$	0.242

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$

Table A7: Poisson Model of Number of Pre-Candidates in a District

	(1) No. of Women
PANista woman won district (t-1)	0.430 (0.396)
PANista woman won in neighboring district (t-1)	-0.0536 (0.261)
Safe PAN District	0.251 (0.278)
% Women Economically Active	2.453* (1.025)
Constant	-1.212* (0.369)
Observations	224
Pseudo $R^2$	0.018

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$

Table A8: Descriptive Statistics for Time-Series Cross-Sectional Election Analysis

	mean	sd	min	max	count
% Women	40.73	21.21	0	100	900
% Women (t-1)	33.84	21.33	0	100	900
% Women among Neighbor Winners (t-1)	20.97	20.30	0	100	900
Woman District Winner (t-1)	0.21	0.41	0	1	900
PAN win (t-1)	0.29	0.45	0	1	900
PRD and Left win (t-1)	0.23	0.42	0	1	900
PRI-PVEM win (t-1)	0.48	0.50	0	1	900

Table A9: Logistic Fixed Effects Model of PAN Female Candidate in a District (2009-2015)

	(1) PAN Female Candidate
PANista woman won district (t-1)	-1.004* (0.439)
% PANista Women among Neighbor Winners (t-1)	0.684 (0.865)
year=2012	0.262 (0.182)
year=2015	0.723*** (0.191)
Observations	582
$R^2$	

Standard errors in parentheses

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

Table A10: Multinomial Logit of PAN Selection Method in 2012

	method
<hr/>	
Open_Primary	
PAN Share 2012	3.962* (1.920)
Constant	-4.801* (1.103)
<hr/>	
Woman_Reserved_Primary	
PAN Share 2012	-1.764 (1.287)
Constant	-0.0184 (0.443)
<hr/>	
Designation	
PAN Share 2012	-6.643* (2.798)
Constant	1.107 (0.711)
<hr/>	
Observations	300
<hr/>	

Standard errors in parentheses

Closed Primary is the reference category.

+  $p < 0.10$ , \*  $p < 0.05$

## Contagion Effects

In the conventional conceptualization of role model effects, Matland and Studlar (1996) argue that parties may respond to female nominees by their ideologically proximate competitor parties with more female candidates of their own in subsequent elections. This typically involves a center-left party responding to more a left-wing challenger running on more gender parity. Such a test is complicated in the Mexican case since the parties of the left frequently form electoral alliances in presidential election years (i.e. every other legislative election). The best test of the theory is offered by Morena’s candidate selection decisions in 2015 in response to the leftist coalition’s candidacies in 2012 (Morena not being a party in 2012). Table A11 breaks down the gender composition of Morena’s candidacies in 2015 by the gender of the leftist candidate in 2012 as well as the electoral strength of the left in 2012. The distinction between the left being competitive or not competitive is simply whether the leftist coalition was in the top-two parties in the district in 2012. What the tables shows is that in areas where the left is electorally viable, there is no difference between a male or female leftist candidate in 2012 on the likelihood that the Morena candidate in 2015 is a woman (i.e. no contagion effects). When looking at areas where the left is weak, there does appear to be some contagion effect. In districts where the left fielded a female candidate in 2012, Morena’s candidates are 64% women, contrasted with 46% women in districts where a man was the leftist candidate in 2012. Thus it appears that contagion effects are present, but only in electorally non-viable districts. This demonstrates that role model effects and contagion effects likely do not work in tandem in the Mexican case, since role model effects entail female candidates winning their seat and that is what leads to more female candidates in subsequent elections.

Table A11: Contagion Effects among Left Parties: Morena 2015 Candidacies

	Left Not Competitive Male Cand. 2012	Left Not Competitive Female Cand. 2012	Left Competitive Male Cand. 2012	Left Competitive Female Cand. 2012	Total
Morena Man	53.75 (43)	35.62 (26)	56.00 (56)	53.19 (25)	50.00 (150)
Morena Woman	46.25 (37)	64.38 (47)	44.00 (44)	46.81 (22)	50.00 (150)
Total	100.00 (80)	100.00 (73)	100.00 (100)	100.00 (47)	100.00 (300)

Numbers in parentheses indicate total number of districts per column.

Figure A4: Distribution of PAN Performance in 2012

