

Does Female Candidacy Invoke
Female Poll Worker Participation? Evidence from Mexico.

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1 Introduction

Throughout Latin America, the gender gap in political participation remains and persists to be highly unequal despite the increase in female representation in all levels of government. The placement and use of gender quotas attempt to minimize the gender gap by forcing parties to reserve a position for women candidates in order to participate in elections. In Mexico, the gender quota laws exist to force political parties to have a minimum number of women representatives at the legislative level. The gender quotas are in place for candidates of the legislature and no other elected positions, such as those of state governor or municipal president. At the gubernatorial and municipal level party leaders independently dictate the selection of party representatives without constraint, selecting candidates based on internal party criteria and procedures. However, the quotas can be manipulated by the parties even with mandates and laws in effect. The Institutional Revolutionary Party (PRI) of Mexico is the only national party that has self-imposed an internal gender quota law, thus increasing the participation of women in all government positions. Thereafter, more parties have emerged with female candidates for elections all together becoming more representative of the population.

The definition of representation varies by the intent and application of the term, I define and argue that Mexico's political actors must be comparable to the population they represent. Pitkin (1967) defines representation in an abstract and catch-all manner to mean an object, in the case of a representative, a person made present which once was absent. The definition describes an action as present or absent without describing who takes the action or why and if on the behalf of someone else. A representative identifiable by some shared characteristic whether it be a physical trait, background, or experience sufficiently alike Pitkin (1967) defines as descriptive representation. The importance of a descriptive representatives arises from the need and want to

feel represented through a person with similar attributes but not through the interests, policy or attitudes of that representative. While, a symbolic representative, Pitkin (1967) describes is a person who fulfills the expectations of the constituent because they embody and symbolize beliefs, attitudes, traditions, experiences, etc. akin to themselves. A representative government must be inclusive and diverse alike the population itself having both a descriptive and symbolic representative present to meet more than a quota. The greater the diversity the more likely minority or marginalized groups to participate in the government.

The gender of a political candidate can influence the participation rates of the electorate, as in the case of Mexico the willingness to be a poll worker may change based on the gender of the candidate. The increase in participation by women may occur because of a role model or influential effect created by observing a woman in the government. I hypothesize that the presence of a female candidates will increase the number of women who participate as poll workers. Through a greater appearance of women in politics the more women will be influenced to be active and involved in politics. Thus, a female candidate has the potential to diminish the gender gap of political participation and change the path of politics itself, when a positive correlation exists between her candidacy and the rate of turnout by female poll workers. In achieving an increase in participation for both candidates and poll workers a descriptive level of representation can be reached while working on attaining symbolic representation.

Concurrently I use data from the gubernatorial candidates from the 1997- 2012 election periods to view how the participation of women as poll workers has changed between the 2000-2012 elections. The inclusion of women at the gubernatorial level although infrequent occurs significantly more than at the national level for president. Presently, only one woman has been a candidate for the presidency of Mexico, which permits observations but is inconclusive of the

long-term trends or behavior of the electorate. At the legislative level for members of Congress, the mandated quota forces a degree of parity which may not produce an effect on the electorate, as directly voting for a candidate and not just a party. Ideally observations would be best at the local level from municipal candidates, as the effects of gender may be the greatest, however the insufficiency of information does not allow for examination. Thus leaving the gubernatorial elections of the states which have sufficient data to view, direct voting, and no quotas established for the period.

My goal is to observe poll workers during the election period beginning in the 2000 to 2012, of men and women who both accepted and rejected participating. In addition, I will also look at data from poll workers for the participation side of the thesis to discover whether women became more active when a candidate was also a woman. I hypothesize that if there is a female gubernatorial candidate present then more woman will accept to be poll workers. I intend to use the data from the Instituto Nacional Electoral of Mexico and from each electoral institute of the 32 states to assess the rate of participation of men and women as poll workers. The selection of poll workers occurs through random assignment in a two part sortition process and must voluntarily choose to be involved; this allows for a statistical analysis without the need to control for confounding variables. The process gives all eligible participants an equal chance to be selected without the influence of class, gender, education or economic status, etc. However, those who chose to participate as poll workers may not be as random as selected, given that some groups will choose to participate at higher rates while others refuse due to personal circumstances and disqualification. Thus, an initial calculation of participation will be made prior to treatment without the presence of at least one female gubernatorial candidate, and then after treatment with the presence of a female candidate.

The results of the Difference in Difference (DID) analysis confirm that woman poll workers participate more when there is a female gubernatorial candidate. By first calculating the rates of participation of women and men before exposure to a female candidate, I find that women on average participate at an overall higher rate than men. Post-treatment with the presence of a female candidate, women poll workers continue to participate at higher rates than men. Once conducting the DID analysis, I find a statistically significant result with the participation of women poll workers increasing with the presence of a female gubernatorial candidate. Although the difference of 0.74 seems small and insignificant, once calculated from the potential pool of poll workers the results show an increase of approximately 620 more women participating, opening another 88 polling places with 7 people at each place. Thus, more women participate as poll workers when a female gubernatorial candidate is present at the election. The increase of participation of women can lead to a decrease in the gender gap in political participation. Further research should be conducted to observe the impacts of women as candidates in other roles and the effects produced by women elected to political positions.

The remainder of the paper continues with a literature review to demonstrate the similarities and differences between previous work through a contextual analysis of woman in politics. The third section pertains to theory, where I will argue the reasoning of my hypothesis from previous research and trends. In the fourth section, I outline the Research Design and explain the components observed and tested. The fifth section, Data Description, describes the collection and organization of data, the process of poll worker selection, and gubernatorial elections. In the penultimate section I discuss the participation rates for men and women and the results of the Difference in Difference analysis. The final section will be the conclusion where I will summarize the findings and how further research should proceed.

2 Literature Review

The literature of woman in politics consists of the research on female candidacy, the election and holding of office, policy creation and the societal or legislative changes as a result of a female representative (Chattopadhyay and Duflo 2004, Broockman 2014, Beaman et al. 2012, Piscopo 2014). Currently the research on the subject remains concentrated around the effects of gender quotas throughout the government and the changing of the gender gap (Franceschet and Piscopo, 2008). While other areas of literature focus on policy making and the experiences as a result of the increased presence of women representatives in the legislature (Htun 2016, Schwindt-Bayer, 2006). While the work of Piscopo (2014) observes how policy has changed with the presence of women and whether representation is descriptive or substantive by both female and male legislators. However, the strict concentration of research in these particular areas leaves a significant gap and thus an opportunity to explore comparatively how female representation changes beyond just policies or at the legislative level. The majority of the research observes the effects of female candidacy on the socio-cultural aspects of politics and thus overlooks the political effects of participation in the electorate. For the exception of Broockman (2014), who takes a comparative approach by observing how female candidates affect turnout and subsequent participation of other women as candidates. As opposed to individually analyzing either topic I intend to conduct similar research by observing the outcomes of woman in politics at the gubernatorial level of government in Mexico and their correlation with poll worker participation.

Every Latin American country experiences a differing gender gap of political participation due to differences in political histories, experiences, policy, and types of government that have changed the course of political participation. The differences of political

participation can be viewed in the research of Desposato and Norrander (2009) which examine the contextual and individual level variations that have caused the expansion of the gender gap in seventeen Latin American countries. The conventional modes of participation include turnout, involvement in campaign, interest and discussion of current political topics, advocating policy change through traditional practices. While unconventional modes of participation are those of protests, sit-ins, and boycotts that are uncommon practices. Through the observation of conventional and unconventional modes of participation, Desposato and Norrander (2009) uncover all countries are experiencing increase in the gender gap, excluding countries where women have actively participated in unconventional forms of politics. Although political participation by women has increased, all seventeen Latin American countries are observed to have a negative gap. The results of Desposato and Norrander (2009) demonstrate that differences in the contextual influences of education, employment, religiosity, and age are the cause of the widening gender gap. The widening gap can be attributed to individual level differences that affect both men and women but disproportionately effect woman more. To mitigate the effects of the declining participation, more women should be candidates and officeholders to increase the political participation of other woman. Thus, quotas in place should positively affect the gender gap and reduce it. By examining an expansive seventeen Latin American countries the results provide broad observations as opposed to in-depth evaluations on an individual country. The data observed puts into perspective how the data I collect may reflect the ever-persistent gender gap despite controlling for individual level influences altering participation. In my own research these factors are be taken into consideration to control for possible confounding variables. The contextual factors do not provide a precise resolution to how each country can alleviate inequalities rather general target areas that need improvement. I limit my research to the country

of Mexico to provide an in-depth analysis of how a candidate's gender can affect poll worker participation. The previous work of Desposato and Norrander (2009), observe contextual factors at the individual level between men and women whereas my work focuses on viewing solely the effects of how a candidate as a man or woman affect political participation controlling for such contextual factors.

The work of Chattopadhyay and Duflo (2004) examine the policy outcomes as a result of randomized reserved positions for women in local village councils in the districts of West Bengal and Rajasthan in India. The results uncover that a woman representative in local village councils enact policy and investment targeted at the concerns and needs of other women, (Chattopadhyay and Duflo 2004). As discovered by Chattopadhyay and Duflo (2004) and numerous scholars in other contexts, the gender of a political representative cause significant differences in policy development and implementation. Subsequently, Beaman et al. (2012) also builds on the implementation of quotas to measure the effects a female head of council has on educational attainment and aspirations of girls and their families in villages. Due to a female head of council, both families and young women show the desire for additional years of education in addition to raising aspirations for vocation, (Beaman et al. 2012). The gender of a representative affects the proposal and outcomes of policies, and to a larger extent influences the perception of men and women in politics and in society. The limitations of both by Chattopadhyay and Duflo (2004), and Beaman et al. (2012), occurs at the level of observation as they concentrate solely on two states within the country of India. Given the diversity of the population and size the results of observing only West Bengal and Rajasthan may not be applicable to other states of India or to other contexts. In my own research a I include every state but not every gubernatorial election,

but nonetheless creates a broad context of multiple states and years to then be applicable to similar contexts such as other Latin American countries.

The mandated quotas at the legislative level allow female candidates in Mexico to have a greater opportunity to gain entry, participate, and change policy in the government than a role without such law. The research by Piscopo (2014) focuses on understanding female legislators and their role in policy making and representation of women. As known from multiple researchers, the presence of a female as a legislator or as a head of council has positive impacts on policy usually in being more responsive, equal, and protective of all people rather than just one group (Piscopo 2014, Beaman et al. 2012). Through a quantitative and qualitative assessment of observations on who authored, introduced, and brought forward bills over depicts the obstacles needed to overcome as a female legislator. The difference between a descriptive and substantive representation is quantity of representatives over interests in policy, leading to both male and female legislators capable of substantive representation. Further differentiated by Piscopo by focusing on women and not children, which often are combined together and thus consider male legislators as representing women's interests. The conclusion of Piscopo (2014) finds that when separated, women-focused policies are introduced and pursued mostly by female legislators regardless of political party or ideology. By the interests of women being met by legislators they succeed in being substantive representatives as opposed to solely descriptive representatives. The research of Piscopo (2014), highlights the need to have descriptive and substantive representation to push forward female interests I hope to observe a similar scenario with gubernatorial candidates and their impact with female poll workers. In addition, I differ my research by focusing on quantitative data as opposed to both to observe statistical significances and correlation.

The participation of women as candidates and voters has the potential to decrease the present gender inequalities while creating governments more susceptible to the needs of both men and women. The literature suggests that in democracies, like India where high inequality exists, the gender of a candidate can alter outcomes in policy and ultimately reduce the gender gap experienced by its constituents (Chattopadhyay and Duflo 2004). However, Broockman (2014), observes the opposite effect in the United States where low gender inequalities are exhibited, the gender of a candidate does not produce a significant change in outcome nor reduce the gender gap. Through a regression discontinuity analysis, Broockman (2014) discovers that in legislative elections a female candidate has no effect on increasing women voter turnout nor increasing the likelihood of other women subsequently running for the position. Although the research extends over a large quantity of legislative elections, Broockman (2014) fails to specify how elections individually differ from locale to locale, and thus how contextual factors may reduce the effect of a female candidate. A comparison between similar legislative districts may produce a greater extent of revelations to the diminished result of female candidacy on its constituents. In turn I observe differently at the gubernatorial level, for the presence or absence of a female candidate and compare the trends of gender across elections and how at the local level poll worker participation may change.

The results of Chattopadhyay and Duflo (2004) and Broockman (2014), lead to the contradictory conclusions of the effects female candidacy can produce in politics and the ability to reduce inequality. Without any further research neither side can prove the trend exists or attribute the change in the gender gap to a female candidate beyond the context of their observations. Although extensive, the literature of women in politics remains confined to the changes experienced and produced by woman as elected representatives when in office and in

larger society itself. My research grows the literature by taking a comparative approach to female candidates and their effects on poll worker participation through the context of Mexico. I expect to find results that support Broockman's (2014) conclusion in which countries with high inequality are more susceptible to the effects of a candidate's gender. Through this understanding, I hypothesize that in Mexico where female participation has been largely absent, a female candidate produces an increase in participation of women as poll workers. By observing the impact of a female gubernatorial candidate, I add to the existing literature which has not analyzed gender nor gubernatorial elections. In addition to expanding the literature of poll workers in Mexico I also expand on the poll workers in Mexico from Cantu and Ley (2017) who observed effects on poll workers. The analysis of gubernatorial candidates and participation poll worker levels are a consequence of the lack of data accessibility, availability and historical record. The absence of data contributes and creates the gap in the literature on the subjects; though recent compilation and acquisition have mitigated the disparities in the literature, the work remains limited. My research implements aspects and theories from previous studies, the comparative approach and the specificity of observations at the gubernatorial level and of poll workers are innovative of the literature in existence. The contributions serve as the beginning for others to grow the research of women in politics while minimizing the gap of analysis in Mexico in these areas.

3 Theory

Although women were given suffrage in Mexico in 1953, political participation and candidacy have remained highly unequal. Most recently women have increased their presence in politics, yet the gender gap has remained despite the surge of activity. Thus, the position of a woman in government may still be manipulated or influenced by males especially when they are politically weak or inexperienced. As Duflo (2012) writes, the political power of woman may be eclipsed by their husbands or taken advantage of by local elites because of the societal novelty and apprehension of electing a woman. The continued domination of men in politics in the context of India by Duflo (2012), may in turn be applicable to Mexico as candidates and poll workers have the potential to be selected based on their ties to an established political connection as opposed to an objective selection. Although candidate selection cannot be controlled for, it should be noted that women's ability to participate in politics may be constrained by familiar figures and socio-cultural practices. Thus, if a woman is candidate, then there may be no change in the participation rates between men and women as poll workers. The lack of change in participation can be attributed to the Hispanic/Latino culture of Machismo that emphasizes male superiority and dominance in behavior, gender roles and attitudes. In turn machismo can be used to justify the degradation of a women's status within society alike inhibiting her personal ability to receive an education, participate in social activities, and make her own decisions. Given the prevalence of machismo in Mexico it potentially may be a confounding variable to control for as a woman may not be able to participate because of a male figure's decision.

The differences between men and women in politics have been extensively studied and found to produce significantly different results at the various levels of observations. Most notably, the literature of women in politics, specifically women policy makers have found

discernable disparities between policy development and implementation. A women representative has shown to prioritize the needs of women and children with the focus of how to improve the greater well-being of all others as opposed to policies benefitting select portions of the population. In the randomized policy experiment in India, Chattopadhyay and Duflo (2004), observed how woman with positions allotted by quotas affect policy choices, the decisions better reflect the preferences of woman in the community. For example, in the local village councils in West Bengal women complained about drinking water and roads, and where there was a female elected those needs were addressed (Chattopadhyay and Duflo, 2004). With the understanding of gender creating variation in politics and in specific contexts, its application must also be used to explore contexts in which gender differences have not been measured.

The work of Broockman (2014) analyzes the turnout rates of voters on election days and subsequently the candidates of elections post a women candidate and discovers no change in any participation. The findings of Broockman (2014) in the United States contradict the findings of Chattopadhyay and Duflo (2004), where change can be observed as a result of a woman candidate or representative. If the differentiation between a male or female candidate has no effect on the participation of men or women as poll workers, then most likely a confounding or omitted variable has affected the analysis. The results of my research determine whether the gender of a candidate plays a significant role in voter participation and the ability to close the gender gap as a result.

The research from Beaman et al. (2012) demonstrates changes in education and aspirations for young women occurred as a result of their local village council in India mandating a position for a woman. The influence of a woman candidate on constituents specifically onto others of similar qualities i.e., gender, produces what is known as a “Role

Model Effect,” where the increase in presence of a woman or person motivates and causes women alike to also increasingly want to participate in politics (Beaman et al. 2012). In areas where women’s participation in politics has been significantly low or unattainable, a women candidate signifies a sociocultural change in gender roles that invokes participation to women. Likewise, I assume a similar effect might occur between gubernatorial and municipal candidates onto poll workers. I theorize that the visible increase in presence of a woman candidate(s) has a positive effect on other women's participation rates in elections. Thus, if a female gubernatorial candidate is present in an election, then more women will participate as poll workers. A woman for candidate of a political position challenges the existing gender disparities and becomes a role model for others as they make a difference in the attitudes and aspirations of another woman (Beaman et al. 2012). A role model challenges and overcomes the present stereotypes and counteracts the potential backlash of being the first woman in such positions. The research on the subject records the differences and impact women have made since attaining political enfranchisement from all males to partial to parity representation. The disproportionality of men and women candidates can be attributed to the gender gap and socio-cultural factors that deter equality for women and reinforce male dominance. In the seventeen Latin American countries observed by Desposato and Norrander (2008), all experience a significant and expanding gender gap in political participation despite relatively equal individual level influences. Although my hypothesis is contradictory to the observed findings, I suspect that the passage of time has changed the gender gap and in turn the rates of participation of candidates and poll workers.

Previous research of woman candidates and voter turnout and participation in the United States by Broockman (2014) finds that woman is no more likely to turnout to vote for a female or male candidate, nor did the likelihood of women candidates increase because a woman

previously campaigned for election. The results of Broockman (2014) and those of Chattopadhyay and Duflo (2004) are contradictory, as one finds an increase in representation through a candidate of the same gender creates an increase in participation while the other does not. The differing contexts of the research can be attributed to the differences in time as a democracy, socio-economic factors, time of women's suffrage, level of development, etc. As a long-standing democracy, the United States political culture has allowed informal participation of women and has a significantly longer time of having women's suffrage and political rights. In comparison to both, the political context of Mexico follows most closely that of India, which bring me to believe the gender of a candidate is influential in political participation. Broockman (2014) concludes the gender of a candidate has greater effects in contexts where political participation remains highly unequal. Thus, I conclude that despite the persisting gender gap, a woman candidate increases the participation rates of women poll workers.

4 Research Design

My research aims to observe the participation of women in elections in Mexico, specifically looking at the rates of participation of women as poll workers when a woman is a candidate for gubernatorial election. The participation of women as a gubernatorial candidate are observed as either being present or absent in the election. While observing the rate of change between men and women poll workers over the three consecutive gubernatorial elections corresponding to the state in order to conclude whether the presence of a female candidate correlates with an increase in female poll worker participation.

I analyze across the 32 states of Mexico including the Distrito Federal, the federal district- Mexico City, through the 1997 to 2012 election cycles, how the presence of a women as a candidate affects the subsequent participation of women as poll workers. As an observational study, I take a quantitative approach to measure the rates of change from the participation of candidates and poll workers, for each individually and then combined through the difference in difference. Nonetheless a true natural experiment cannot be conducted given the inability to control the selection and allocation of female gubernatorial candidates as the treatment. The random selection of poll workers controls for possible confounding variables that may affect participation as the Instituto Nacional Electoral (INE) samples the population randomly and thus everyone receives an equal chance. Although the selection of poll workers occurs at random the choice of participation does not as some groups of the population participate at higher rates than others. After initially being selected at random, workers must be deemed competent, meet the pre-established criteria, and choose to participate. Inadvertently by establishing a minimum threshold, individuals are excluded such as those who are illiterate, who migrate and do not have

a stable address, those who work and cannot take time off and most of all those with an education.

The analysis conducted through a Difference in Difference (DID) design, uses the presence or absence of a female candidate to compare the participation rates of male and female poll workers. Since not all states nor all elections have female candidates their presence or absence serves as a treatment to the poll workers. The Parallel Trend Assumption in a DID assumes that both groups- the control and treatment have experienced a constant behavior or trend prior to the implementation of the treatment. Once given the treatment the parallel trends would deviate with the control group remaining on a consistent trajectory while the treatment group changing as a result. If the groups would remain without treatment, then no change would cause the deviation, and both comparisons would remain parallel to each other.

Subsequently to determine whether the effects of a candidate can be immediately observed or over an election cycle to increase the female rate of participation as poll workers. The focus is on observing the choice of participating as a poll worker based on states who have solely male candidates and to those with both female and male candidates. The DID design allows the treatment to be compared across states, thus allowing any one of the 32 Mexican states to be observed with the presence or absence of a female candidate in multiple gubernatorial elections. In addition to comparisons in the participation rates of females and males as gubernatorial candidates and poll workers. The selection of a DID design over other regression models occurs from the natural division of the treatment and control groups and the ability to view both from an initial point and compare deviations.

5 Data Description

The data compiled for candidates originates from the Instituto Nacional Electoral (INE) of Mexico who manages all electoral activity of parties, participants, and citizens. However, a limited amount of data is found at the national level and thus the majority of information is sourced from a state's electoral institute. The information regarding gubernatorial candidates can be found through three official sources, the states Memoria Electoral containing the election procedures and results, a data panel of results, or from the Consejo General which is the supervisory board of elections which oversees all party registrations, platforms and activities. An information gaps exist where neither the national or state INE have published a comprehensive list of candidate information, quite often only the winning candidate and the division of votes between parties of the election is known. In many cases the number of parties and the margin of success are shown through a table of results which I am able to conclude the number of participants but not any specific details on a candidate. Given the variation from state to state, not all states, election years, or gubernatorial candidates are included. In order to discover the identities of the other candidates' unofficial electoral sources were consulted such as state newspapers, government websites, internet publications from blogs and miscellaneous news sources and independent information from secondary sources. The lack of overlap in elections diminishes the possibility of finding a comprehensive set of results from all state elections, given gubernatorial elections occur every six years, and state and local offices are held every three. Occasionally elections occur simultaneously while others occur a year(s) apart from one another. Currently, no data sets exist with all candidate data for governors, thus select states and elections are used given their availability and accessibility. The data compilation for governors is formatted first by state and then condensed by year of election (as seen in Figure 1). Each state

has the year of gubernatorial election, the gender of the candidate, the name of the candidate and finally the party affiliation. The gubernatorial election occurs for each state at every six years however not all occur simultaneously, thus some states elections do overlap, and others do not. The following column defines the gender by a coded numerical system which places gender with a corresponding number of women-1 and males-2. The number assigned is derived from the candidate's name found from the Memoria Electoral, the electoral account of the given election, or from another official electoral source such as the corresponding website of the election and table of winning results. The names and parties follow the original order listed where found, and written as first name, middle name, first last name, and second last name. The following column provides the party affiliation of each candidate, abbreviated by the initials of the party name or its given abbreviation. Most candidates belong to national parties and or their coalitions with the occasion exception of state parties and independent candidates.

Figure 1

Colima, 1996-2015 Gubernatorial Candidates

	A	B	C	D	E	F	G	H	I
1									
2			F-1/M-2/U-3	CANDIDATE	PARTY				
3		1996-97		2 ENRIQUE MICHEL RUIZ	PAN				
4				2 FERNANDO MORENO PENA	PRI				
5				2 GONZALO CASTANEDA BAZAVILVAZO	PRD				
6				1 ALICIA ABUNDIZ VALENCIA	PC				
7				2 RICARDO MANUEL ANTE VILLALOBOS	PT				
8				2 ARMANDO BRICENO AVALOS	PVEM				
9				2 JOSE RAMON VARGAS VALLE	PPS				
10				2 MANUEL GONZALEZ CHACON	PPS				
11									
12		2002-2003		2 ENRIQUE MICHEL RUIZ	PAN				
13				2 GUSTAVO ALBERTO VAZQUEZ MONTES	PRI				
14				2 J. JESUS OROZCO ALFARO	PRD				
15				2 GUSTAVO CEBALLOS LLERENAS	PT				
16				1 MARIA DELIA CAMPOS VARGAS	PSN				
17				2 CARLOS LUIS VAZQUEZ OLDENBOURG	ADCPPE				
18				1 EVANGELIA BANUELOS RODRIGUEZ	PMP				
19				2 LEONEL RAMIREZ FARIAS	PFC				
20									
21		2009-2010		2 GABRIEL SALGADO AGUILAR	PC				
22				2 ALBERTO CARLOS OCHOA MANZUR	PRD-PSD				
23				1 MARTHA LETICIA SOSA GOVEA	PAN				
24				2 MARIO ANGUIANO MORENO	PRI-PNA				
25									
26		2014-2015		2 JORGE LUIS PRECIADO RODRIGUEZ	PAN				
27				2 JOSE IGNACIO PERALTA SANCHEZ	PRI-PNA-PVEM				
28				1 MARTHA MARIA ZEPEDA DEL TORO	PRD				
29				2 DAVID MUNRO GONZALEZ	PT				
30				2 LEONIDO ALFONSO MORAN SANCHEZ	PNC				
31				2 JOSE FRANCISCO GALLARDO RODRIGUEZ	PM				
32				2 GERARDO GALVAN PINTO	PES				
33				2 CARLOS BARBAZAN MARTINEZ	PH				
34									
35									
36									
37									
38									

Note-Elections are held every 6 years. The

In some gubernatorial elections, names may appear several times as a candidate can have multiple attempts to win until having served a term in office. Those who have not won an election and held office may participate as long as the party supports their candidacy or running as an independent candidate.

The information of poll workers originates from the Instituto Nacional Electoral organized by Cantu and Ley (2017) of over one million objects of poll worker qualities. Given the focus of gender and participation, the data extracted pertains to the number of acceptances and the total number of poll workers all together from the unrestricted and restricted pool. The merged data set of gubernatorial candidates and poll workers of the state, dates of election, number of people in the pool worker pools, number of candidates, and further specified by gender when applicable. The numerical order of states corresponds to the alphabetical order and may have multiple rows for the elections pertaining to the 1997 to 2012 elections. First the dates of election are matched from those of the local and national election, which respectively pertain to the gubernatorial and then the senatorial and legislative positions. The local and national elections typically do not overlap with one another and are matched by proximity with a one to three years difference. Thus, every gubernatorial election has been matched to a local election in order to observe whether the presence or absence of a female gubernatorial candidate has made an impact on the participation of female poll workers in following elections. As listed the total number of poll workers notified from the unrestricted and restricted pool followed by the number of workers by gender, and finally those who accepted the position. In the following column the number of candidates by gender for the gubernatorial election. Concluding with the number of years between the local-gubernatorial election and the national- senatorial and legislative elections which can range from zero to three years apart.

Poll Worker Selection

The process of assigning poll workers to an election post or polling place for many countries occurs through voluntary self-selection while for countries like Mexico the assignment occurs through random selection like a lottery. The term “insaculacion” translates to sortition, the process of selecting poll workers or political actors from a large group of the population to smaller groups through a process of sorting based on pre-determined criteria. The insaculacion of Mexico works as a 3 part-2 sortition process where first- selection and notification occur, and second the training, subdivision for diversity, and final acceptance or rejection. Prior to any sorting of potential poll workers, a month(s) out of the year and a letter from the alphabet are selected from a random draw. The first sortition, “la Primera insaculacion” occurs over three parts, beginning with sorting all eligible voters whose birth month corresponds to the designated month and whose paternal last name begins with the designated letter for a final total of 13% of potential poll workers (INE, 2018). The second part consists of the notification of the selected poll-workers occurring through a home visit by the “Capacitador-Asistente Electoral (CAE),” the assistant-trainer/moderator of elections. After notification the “Junta Distrital,” the district board makes final evaluations of eligible workers which includes revising who qualifies and is competent to fit the role. In the third part selected workers may oppose the offer from an inability to notified and found, from the inability to preform basic functions of the role, or simply refuse to participate. The second sortition, “la Segundo insaculacion” begins the training of workers for the polling process of set-up, receiving and counting votes, documentation, results process, and closing of the place. The second part ensures the staffing of each poll place characterizes the diverse demographics of all citizens and results in the participation of minority or marginalized groups. As the final step before opening the polling place, workers are able to decline further

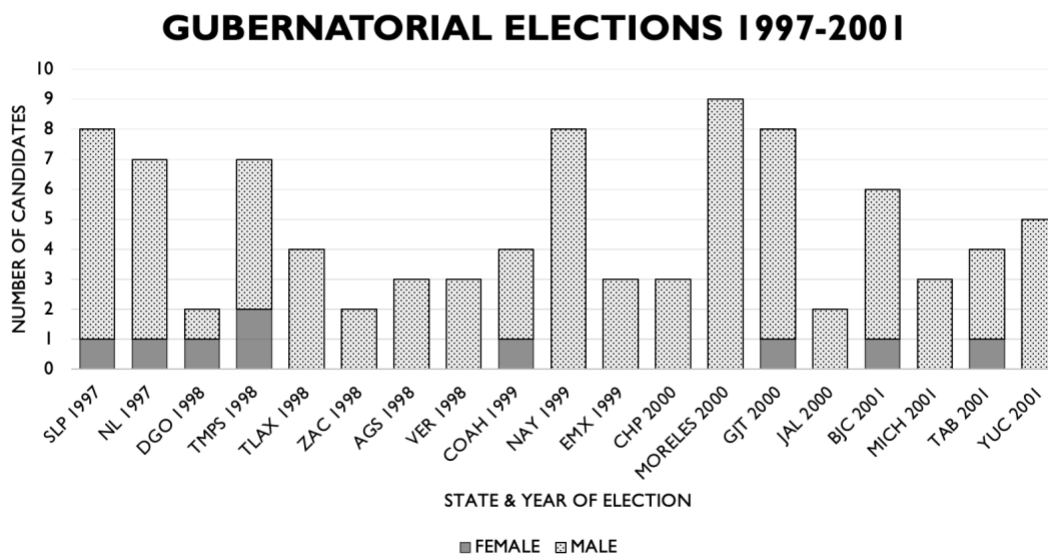
participation and may be replaced. The vacancy is filled by a substitute worker, who trained and accepts the role so that the polling place may open as scheduled on election day. For each

Gubernatorial Elections

The gubernatorial data describes qualitative aspects of each candidate from their gender, name, and party, these however can be summarized through a quantitative analysis. The quantitative analysis shows the number of candidates per election and the male to female ratio of participation. These preliminary graphics demonstrate the overall trends of female and male gubernatorial candidates; however, these are not all inclusive given only found and verified data are used. The time period is limited to five years to capture all state elections before turnover with a new governor and group of candidates. Given the lack of data not all states and corresponding elections are included. The inability to confirm candidate information has resulted in a reduced number of elections being observed. The states and elections selected and omitted occur at random, solely dependent on the information available of gubernatorial candidates. The vertical axis for each figure is labelled from zero to ten and no limit or minimum exists to the number of candidates who can run for governor. Along the horizontal axis the state and year of election are labelled beginning with the earliest election of the period and its corresponding state. The order of states has no significance and likewise the placement of the bar are not intended to emphasize a pattern and must be analyzed individually. Each bar potentially contains one or two colors, the solid grey color notes the number of women candidates for the given state and election while the patterned grey bar corresponds with the number of male candidates in the given state and election.

Figure 2

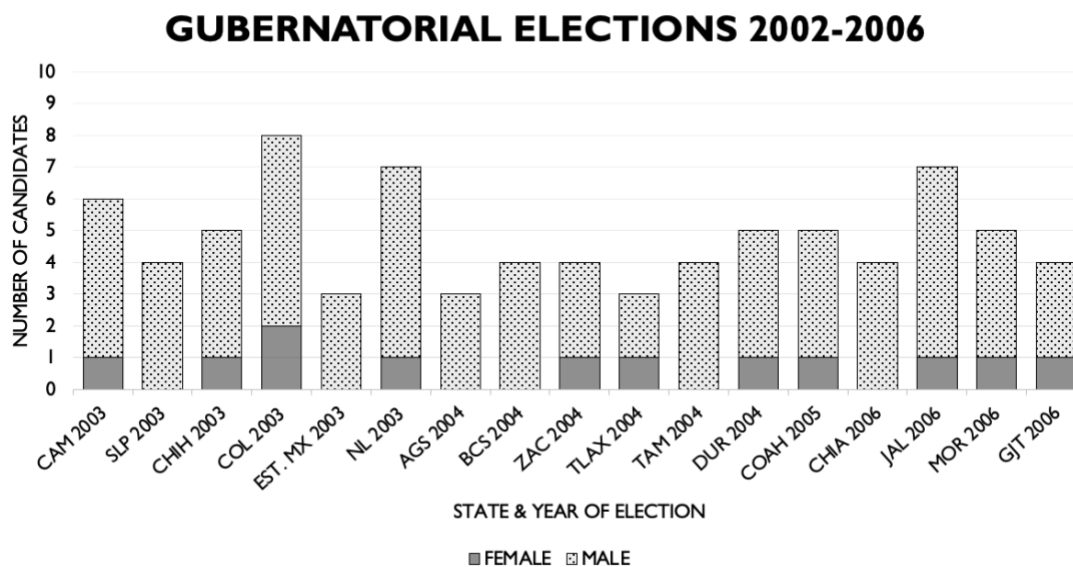
Gubernatorial Elections of Mexico, Period 1: 1997-2000.



From 1997 to 2001 (Figure 2), nineteen elections are observed with 8 out of 19 having the presence of a woman as a candidate and the remaining eleven elections with all male candidates. Altogether from the 9-woman candidates and the total number candidates 91, the rate of female participation approximates 10%. The prevailing trend is of male dominated gubernatorial elections with the 1998 election in Durango being the only state to have parity. The outlier of Durango must be examined in further detail to understand the context behind the number of participating candidates and their selection. Overwhelmingly the elections with woman tend to have a significantly greater number of candidates than states with all male competitors. The greater the number of candidates the harder for women to achieve parity.

Figure 3

Gubernatorial Elections of Mexico, Period 2: 2002-2006.

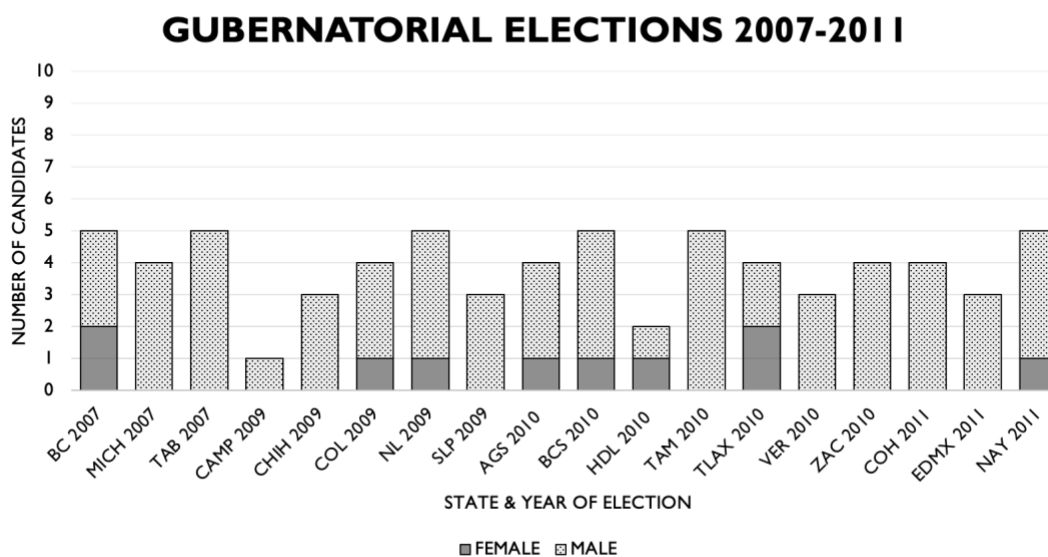


From 2002 to 2006 (Figure 2), the seventeen total observed elections demonstrate the continuation of male dominance as six elections had solely male candidates. The remaining ten elections have the presence of one female candidate and one election with the presence of two female candidates. The reduction of elections with solely male candidates from eleven to six is a significant decline at almost half, further inquiry must be made to understand the context behind the decrease. In comparison to the previous election cycle less candidates have competed, but regardless the presence of a female candidate has not increased significantly. From 83 candidates and 12 female participants the rate of participation approximates 14%, but it must be noted less elections and candidates are observed. Although small the 4% increase signifies the participation of 3 more women as candidates, and another step toward equality and parity of gender. During the 2nd period no state achieved parity with the exception being the state of Tlaxcalteca with the smallest ratio of

men to women at two men per one woman candidate. The previous trend of male dominated candidacy remains and continuous to prevail with women making slight progress.

Figure 4

Gubernatorial Elections of Mexico, Period 3: 2007-2012



From 2007 to 2011 (Figure 4), a total of eighteen elections occurred with the presence of women in eight elections. Although 72 candidates participated only 10 of those were female candidates resulting in a participation rate of approximately 14%. In comparison to the previous period, the rate of participation has increased slightly as the number of candidates has declined and the number of women candidates constant. However, the patterns of male dominance in gubernatorial elections fluctuates from eleven states to six states and finally once again 11 states having solely male candidates. The inconsistency of decline or rise demonstrates the difficulty of maintaining a downward trend in the political environment of Mexico. The election in Hidalgo in 2010, and Tlaxcalteca in 2010 show total parity with the number of men and women candidates however the number of candidates pertaining is relatively small in comparison.

Overall, from the three periods of elections observed only the state of Nuevo Leon maintained a female candidate in all three elections. With no other state maintaining this consistent trend, Nuevo Leon must be examined to understand if and any thresholds changed due to policy, parties, or a third factor not observed in the other states. The most common trend shows that 11 out of the 27 gubernatorial elections had one women representative present from 1997 to 2011. The differences in gender participation for gubernatorial candidates remains inconsistent across elections and show unpredictable trends with the inability to generalize if women will be present or absent in elections. Thus, each state should be examined individually to evaluate the context of changes in candidacy including thresholds, access of entry, party and or federal policy, and the selection criteria of parties. In addition, the number of candidates in each election must be categorized based on party or coalition to describe the trends across parties to identify the cause of large or small numbers of candidates.

6 Results

Prior to conducting Difference-In-Difference analysis a threshold of participation must be examined to understand the effects potentially caused by the presence or absence of a female gubernatorial candidate. The gubernatorial elections and local elections for legislatures and municipal positions do not always overlap thus the observations of poll worker participation can be from one to three years after a gubernatorial election. The rate of participation is calculated by the sortition and the gender of the poll workers for a total of four different rates of participation. The INE data of poll workers has provided the number of women and men who accepted, and the total numbers of potential poll workers from the restricted and unrestricted pool over the 2000 to 2012 election periods. The rate of acceptance can be apportioned by the number of acceptances over the “Primera y Segunda Insaculacion,” the unrestricted and restricted pool of potential poll workers. The different population sizes of each state and the times of election are averaged and serve as an overall estimate of participation. Each rate can be viewed to the lowest aggregate level, however with the focus on gubernatorial elections the measures is of female and male participation in the state overall.

Figure 5

Female and Male Poll Worker Rates of Participation, 2000-2012.

$$\text{Rate of Participation 1} = \frac{\text{total \# of acceptances}}{\text{total \# of eligible voters from unrestricted pool}}$$

$$\text{Rate of Participation 2} = \frac{\text{total \# of acceptances}}{\text{total \# of eligible voters from restricted pool}}$$

The rates of participation are calculated (Figure 5) from the total number of acceptances, individually for men and women, by the number of eligible voters of the unrestricted and restricted pool for each state and then those are averaged together for the totals. The results (Table 1) show the rate of participation 1 has females participate at an average rate of 13.80% while on average males at a rate of 11.42% with a difference of approximately 2.38%. The higher rate of participation by women can be attributed to a variety of sociocultural, political, and economic factors that range from a women's role in the home from rearing children, the lack of employment, the level of education that can increase the ability to accept or be qualified for a position. While for males their lack of participation can be explained from the same context but in opposition, where they are the main income providers, who work outside the home, who less active and involved with their community who do not have the free time to participate. Even though a two-percent difference seems minimal, a states unrestricted pool can range from a minimum of one hundred and twenty-six thousand for women to one hundred and thirty-three thousand for men which is the difference of approximately twenty-five hundred poll workers. The additional workers, with seven needed to open a polling station results in another three hundred and fifty-seven polling stations allowing greater access to vote and to be involved politically for all men and women. If taken from the maximum of the unrestricted pool, four hundred and eighty-eight thousand and five hundred and thirty thousand at two percent equals approximately ten thousand poll workers. Although a small percentage, the size of the pool in the hundreds of thousands makes even the most minimal amounts result in significant number of additional poll workers and stations. The increase in poll workers and stations can also result in positive outcomes for the electoral process such as greater accessibility for voters in rural communities and efficiency in the voting process of receiving and counting votes. Overall, the

rate of participation 1, demonstrates that women accept to be poll workers at a higher rate than before disqualification or denial.

Table 1

Descriptive Statistics of Participation Rates

Variable	Observations	Mean	Std. Dev.	Min	Max
Male Citizens					
Unrestricted Pool	87	109076.30	90236.20	13334.00	488303.00
Restricted Pool	87	74033.95	59141.37	7355.00	318550.00
Total # of Acceptances	87	12248.34	9559.76	1716.00	48600.00
Rate of Participation 1	87	11.42	0.87	9.95	14.34
Rate of Participation 2	87	16.96	2.80	11.57	24.74
Female Citizens					
Unrestricted Pool	87	116914.20	99124.32	12668.00	533170.00
Restricted Pool	87	83759.00	68481.19	7156.00	370614.00
Total # of Acceptances	87	15989.21	13361.94	1793.00	71477.00
Rate of Participation 1	87	13.80	0.92	10.43	15.78
Rate of Participation 2	87	19.39	3.04	14.12	26.90

Alike the participation rates taken from the unrestricted pool, the restricted pool shows the same pattern of woman's participation with on average participating at a higher rate than males as poll workers. For women the average rate of participation is 19.39% and males at 16.96% with the difference of 2.43%, even greater than that of the unrestricted pool. If taken from the minimums of the restricted pool the range can be from seventy-three thousand women and seventy-one thousand men eligible to be poll workers for the difference of seventeen hundred poll workers. Thus, the possibility to open or close another two hundred and forty-four fully staffed polling stations. If the difference is taken from the maximum of the restricted pool of women at three hundred and seventy thousand and males at three hundred and eighteen

thousand equaling an additional eight thousand, one hundred and eighty-seven poll workers and over one thousand more polling stations. Although these differences are an average between men and women it can also be taken individually for either men or women of additional hundreds or thousands of poll workers. The participation rates of women are substantially higher than those of males thus resulting in any addition or reduction to be significant for the participation of women as poll workers. The following difference in difference analysis will compare how these participation rates are affected by the presence or absence of a female gubernatorial candidate.

Difference-In-Difference Analysis

The initial rates of participation allow observations on the trends of female and male poll workers, now the trends are observed in correlation to the presence or absence of a female gubernatorial candidate. If there is a female gubernatorial candidate present in an election, then more women will participate as poll workers. I assume a positive correlation exists because the presence of women in politics as a political actor tends to support a change in practices and policy in a beneficial way for other women. Through a Difference-In-Difference analysis (Table 2) with clustering for states, the results show a statistically significant correlation between the presence of female candidates and the increase in female poll workers. Although the participation rates of women are generally higher than of male participation, the presence of a female gubernatorial candidate increases the difference all the more. However, the participation rate of men declines in the presence of a female gubernatorial candidate and do not increase or surpass women in gubernatorial elections with all males.

Table 2*Difference in Difference Results*

	Rate of Participation 1		
	Male Citizens	Female Citizens	Difference Female-Male
No Female Candidate	11.618 (0.184)	13.746 (0.193)	2.128*** (0.321)
At Least One Female Candidate	11.212 (0.127)	13.860 (0.158)	2.648*** (0.301)
			Diff-in-Diff
			0.520** (0.242)

R-square: 0.65

Means and Standard Errors are estimated by linear regression

Clustered Std. Errors by State

Inference: *** p<0.01; ** p<0.05; * p<0.1

	Rate of Participation 2		
	Male Citizens	Female Citizens	Difference Female-Male
No Female Candidate	16.981 (0.478)	19.035 (0.523)	2.055*** (0.449)
At Least One Female Candidate	16.946 (0.479)	19.775 (0.501)	2.829*** (0.301)
			Diff-in-Diff
			0.774** (0.342)

R-square: 0.16

Means and Standard Errors are estimated by linear regression

Clustered Std. Errors by State

Inference: *** p<0.01; ** p<0.05; * p<0.1

The results of the Rate of Participation 1 at the 0.05 level are statistically significant concluding that the presence of a female gubernatorial candidate does correlate with an increase in female poll worker participation. Thus, proving that the increase in women's participation does not occur at random but as a result of having a female gubernatorial candidate in a local election. Also revealing that men participate less as poll workers when a female gubernatorial candidate has been present in previous elections, a decline not occurring as a coincidence. The difference in participation rates as previously noted although a small percentage yields of 0.520

is a notable difference of tens, hundreds, or even thousands of poll workers and polling stations. The difference of half a percentage point depending on the size of the states unrestricted pool can be potentially additional women and fewer men participating. Likewise, the results of the Rate of Participation 2 are statistically significant at the 0.05 level proving a correlation exists between the presence of a female candidate and the increase participation of female poll workers and again demonstrating a decline in men's participation rate. However, the difference is more pronounced at 0.774 and results in a greater number of poll workers and polling stations potentially extra and or missing. This difference is more significant because of the selection from the restricted pool of poll workers results in qualified and competent workers who are able and accepting but ultimately do not participate. The Poll Worker Dataset of 2000-2012, describes in further detail the causes for the personal reasons for declining to participate but do not go into the political contexts behind their choices. The results highlight an important correlation exists between the gender of a gubernatorial candidate and the participation rates of men and women as poll workers, but further research must be done to observe how these changes impact other areas of political activity.

Overall, the Difference in Difference results of the Rate of Participation 1 and 2, show women have a higher participation as poll workers than men and continue to increase in the presence of a female gubernatorial candidate. While for men participation rates are lower the presence of a female gubernatorial candidate deters their participation as poll workers. These findings are significant because they contradict the general assumption of a growing gender gap in Latin America and show that not all areas are experiencing a decline but perhaps, they have gone unmeasured.

7 Conclusion

As descriptive representation increases especially in positions never before occupied by a female, such as that of a governor, more women are increasingly accepting to be poll workers. Although female gubernatorial candidates and governors occur infrequently their mere presence affects female constituents supporting the findings of Chattopadhyay and Duflo (2004) and Beaman et al. (2012) that women are changing policy and changing perception. Thus, raising the level of representation from descriptive to symbolic, where women are not only increasing in number in politics but changing the practice and policy to be more inclusive of women and their own needs. In addition, the results also support the conclusion of Broockman (2014) that in countries with a significant gender gap, as opposed to a substantive degree of parity, the presence of a female candidate can affect voter turnout and candidacy of women in subsequent elections. Although the findings measure poll worker participation, the general assumption of women candidacy increasing political activity of women holds. My original hypothesis has been proven and potentially supports the larger theory that women invoke, inspire, and signal political and social change on a women's place in politics.

The Difference in Difference analysis exposes the impact of a candidate's gender on the participation of men and women as poll workers but is insufficient in detailing and controlling for other confounding variables. The continuing studies should focus on the selection of gubernatorial candidates and the qualifications or threshold women must meet in order to gain entry into higher political positions. In addition, controls should be included to mitigate factors that impact one gender to a greater extent and the individual and contextual level differences that may cause these pronounced affects. Further investigation should be made to identify the causes for low men's participation or whether their political participation occurs at a higher frequency in

another form besides candidacy. Are men participating less as poll workers because the majority of poll workers are women? Could the gender gap be reversing or perhaps truly achieving parity, future research should focus on uncovering the change in these trends. The expansion of literature on poll workers and on gubernatorial candidates will increase the understanding of how gender affects participation for both. The presence of woman in politics creates a fluctuating gender gap which needs to be track the progress of descriptive and symbolic representation to ensure women are given an equal place in government.

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