

## Where Do Women Run? A Case for the Study of “Women Friendly Districts” in State Legislative Primaries

Nathan K. Mitchell<sup>1</sup> & Billy Monroe<sup>2</sup>

### Abstract

---

This study explores the political, institutional, and socio-demographic factors that contribute to the entry of women candidates in state legislative primaries. Using a dataset constructed from 49 partisan state legislative primary elections from 2001-2010, a binary time series cross-sectional logistic model is used to determine which factors are independently related to the probability of a woman candidate running for office. Women candidates run in districts that have a higher income, more professional people, are typically in cities with a higher urban population. Women candidates typically do not run in states with more professionalized legislatures, but are more likely to run in districts that are in session longer. Women are more likely to be present in districts where there is a lot of competition for a seat, i.e. multimember districts. The electoral environment that women face is different than men.

---

**Keywords:** subnational elections, candidate emergence, and women candidates.

### 1.1. Introduction

The election of 2012, marked the 20<sup>th</sup> anniversary of the “Year of the Woman”. It was in 1992, that a record number of women entered the United States Congress. Since that year, the representation of women candidates has increased across the many levels of government. The Center for American Women in Politics (CAWP) reports that women have increased their representation in Congress from 10 percent in 1992 to about 16 percent in 2014.

---

<sup>1</sup>Division of Social Work, Behavioral and Political Sciences, Prairie View A&M University, PO BOX 519 MS-2203, Prairie View, Texas 77446. Phone: 936-261-3209, Fax: 936-261-3229, Email: [nkmitchell@pvamu.edu](mailto:nkmitchell@pvamu.edu)

<sup>2</sup>Prairie View A&M University.

In state executive offices, women have increased their representation from 18 percent in 1992 to about 22 percent in 2014. One area where women have done increasingly well has been in state legislative races. In 1992, women held about 18 percent of the seats in state legislatures and in 2014, they hold about 24 percent of the seats (Center for American Women in Politics, 2014). Women have consistently held about 24 percent of the seats in state legislatures since 2001 and there has not been a great deal of improvement in their levels of representation.

Though women have performed better in state legislative elections than in other areas of politics, women have yet to reach parity with men in terms of representation in most states. A particular concern is that women are well represented in some states and not others. For example in 2014, women comprised 13 percent of the legislature in South Carolina and Louisiana, whereas women legislators comprise 41 percent in states like Colorado (CAWP, 2014). This variation between states is puzzling, because the consensus in the literature is that women compete about as well as men do in their elections, especially in open seat elections. Typically, scholars have found that women raise comparable amounts of money, win a sizable vote share, and many times win the general election outright (Darcy, Welch, & Clark, 1987; Burrell, 1994; 1996). If women can and frequently do win their elections, why is there still a disparity in some states?

To answer this question, we propose and test the hypothesis that there are some legislative districts that are likely to produce more women candidates than other districts. The reason some states do a better job of electing women candidates is that they have more districts that are more “friendly” or have more resources to support women candidates. These districts have resources, a constituency that is ready to elect a woman candidate, and few barriers for entry (Palmer & Simon 2006). Many studies focus on the individual preferences of candidates, but this study focuses on *resources* that are available to field successful campaigns. The implicit assumption in this study is that the districts that are supportive of the candidacies of women are not randomly distributed across the states or within states.

## **2.1. Why Women (Don't) Run**

Scholars have identified a lack of women candidates running for office as the primary reason that women have lower levels of representation in Congress and in state legislatures.

The basic argument is that women tend to do rather well in the general election, but do not run for office (legislative or otherwise) in large numbers or even “opt out” of politics all together (Belkin, 2003; Lawless & Fox, 2010; Niven, 1998, 2006; Palmer & Simon, 2006; Sanbonmatsu, 2006). It is not that women are unable to compete in elections; it is that individuals in the pool of eligible candidates are not running. This phenomenon is very common in state legislative elections. In many districts, women simply choose not to run for office or choose to participate in other ways politically. If women tend to perform as well as men do in the general election when they do run, then the number of seats held by women should be closer to the percentages of men running for office. This is not the case, because the average level of representation across the states is about 24 percent (CAWP, 2014). The literature has identified structural, situational, and personal factors that influence the decision calculus of women running for office.

One of the structural theories deals with the “political pipeline.” Women have not been active in the traditional professions that lead to political office (Clark, 1994; Darcy, Welch, & Clark, 1994; Duerst-Lahti, 1998). The argument presented is that the careers of law or business give candidates access to resources, skills, and a social network to help them mount a successful campaign. Women are not well represented in those careers, thus may not run for office or even see themselves as potential candidates. This trend has been changing in recent years. In 2007, a study conducted by the Bureau of Labor Statistics cited that women are graduating college at higher rates than men and entering law school and other professional schools at higher rates (2007). Palmer & Simon (2006) find that often urban districts with higher levels of professional people are likely to lead to more women candidates being present. Urban districts offer the opportunity to cultivate skills, social networks, and resources for a successful candidacy and women that do not have access to these resources may not be able to field successful candidacies. Women in rural districts may not run, because they do not have access to certain resources. Incumbency also tends to be a large structural barrier for the entry of women candidates. Often there are few challengers in the general election and women receive little support when attempting to run against challengers (Niven, 2006).

Situational factors provide explanation for the lack of women candidates running for political office. Situational factors are often personal. Traditionally, women have been in the home and are the primary care givers of children and other family members. Women report feeling the "tug" and responsibility of the home and family (Carroll & Strimling, 1983; Elder, 2004). If women run for political office it tends to be later in their lives. Situational factors often also influence the types of office women run for. Women tend to focus their earlier careers on state and local races then move on to other offices (Nechemais, 1985; Fulton et. al., 2006).

"Ambition" plays an important role in the candidacy decisions of women candidates. Fox & Lawless (2005) have documented in numerous studies that women report less "office seeking" behavior than men. These findings are attributed to socialization and situational issues relating to the traditional roles that women have played in society. Hypotheses derived from this assumption, suggest that that women candidates have different goals and objectives in politics due to differences in their socialization and areas of interest (Costantini, 1990; Lawless & Fox, 2010). Lawless & Fox (2010) found support for this hypothesis. In their study, they show that when career, education, and other background factors were held constant, women were still less likely than men to report the desire to run for office. Women also reported feeling the need to be "twice as good" as men to get a seat (Lawless & Fox, 2010). This lack of "expressive" ambition leads many to suggest women do not care about political office or would rather put their time and energy into other political activities (Fox & Lawless, 2005). Instead of suggesting that women do not care about political office, a likely scenario is that women are just more risk adverse when running for office.

Another reason that women do not run for office is that they are not asked to run (Fox & Lawless, 2010; Carroll & Sanbonmatsu, 2013). Lawless & Fox (2005; 2010) found that very few women are asked by parties or interest groups to run for office. Though party elites are very supportive of women candidates in the abstract (see Darcy, Welch, & Clark 1994; Sanbonmatsu, 2006), current research suggests that women do not receive the support that men do in their races unless they get the nomination (Werner, 1993; Burrell, 1994; Niven, 1998; 2006; Sanbonmatsu 2006).

Niven's study of candidates in Florida state legislative races, found that women tend to run in districts where they could not win or where their party is the weakest electorally (2006). Niven also found that female candidates had higher dropout rates in districts where their parties had a stronger level of organization or were even discouraged from running to begin with (2006). Sanbonmatsu (2006) confirms these findings in a study of party elites and finds that party workers tend to suggest one gender may have the advantage over another in some races. Some state party systems may not be amiable to women candidates and may perform a gate-keeping function.

## 2.2. A Case for "Women Friendly" Districts

Each of the above reasons is important in understanding the challenges that women candidates face. The literature paints a profile of a woman candidate that does not receive as much party support, has far more competition in the races, is averse to running and may lack monetary and social support (Niven, 2006; 2008; Sanbonmatsu, 2006; Palmer & Simon, 2006). Candidates are strategic when they run for office. They wait until the political climate is right and the costs of running are lower. Each state has a different sociodemographic, institutional, political and cultural environment and these proxy the costs and benefits of running for office. These costs and benefits structure the competition and determine how likely it is that a candidate may win. Within each state, there are also political concerns that make certain districts more attractive than others. Some districts may have cultural attributes that make it more amiable for women to run and win. For example, there may be districts that are lean heavily for the Democratic Party or there may be a population with attributes that make a women candidate more winnable. As such, there are two hypotheses that can be drawn from these assumptions.

## 2.3. Hypotheses

Women run in districts very different from their male counterparts. As the discussion above suggests, there are many political, geographic, cultural, and institutional factors that influence the candidacy choices of women candidates. Some districts may have more resources available to women candidates and others may have increased barriers.

It is important to determine what these factors are and how they are related to the candidacies of women. The following hypothesis will be tested in this study.

*H1:* State legislative districts with more factors that are beneficial to women candidates will increase the likelihood of a woman running in that district.

To test this hypothesis, we will replicate the procedure outlined in Palmer & Simon's (2006) study of women in Congressional elections using state primary elections to create an index of "women friendliness".

### 3.1. Data and Methods

To understand which factors influence the entry of women candidates into state legislative primaries, we examine elections data from all of the primary races from 2001-2010. Primary elections data are presented from 49 states and over 6500 districts<sup>3</sup>. There were a total of 48492 primary races election contests over a 9 year period included in this data. The dataset was constructed from candidate summaries provided by the National Institute for Money in State Politics and then augmented with information collected from state elections websites.<sup>4</sup> The Institute collects information on all of the candidates that filed campaign finance paperwork to compete in the primary elections and the general elections. In addition to candidate data, socio-demographic data broken down by state legislative districts and institutional data taken from various years of the *Book of the States* were used.<sup>5</sup>

---

<sup>3</sup>The unit of analysis is the state legislative primary. We include all candidates that filed and collected information on incumbency status, the winning candidate of the primary, and the winning candidate of the general election data. We do not break out specifics in runoff elections versus other primary elections, though the institutional complexities in those districts would be interesting to study. Only states with partisan structures are used. Nebraska has a nonpartisan system, thus it would be difficult to determine an organized party system.

<sup>4</sup> Data can be downloaded from the API database of the National Institute for Money in State Politics. This information is available <http://www.followthemoney.org/services/> or at <http://transparencydata.com/>.

The National Association for State Elections Directors maintains a current list of state agencies responsible for dealing with elections information. The website is located at: <http://www.nased.org/>.

<sup>5</sup>Demographic data was taken from the *Almanac of State Legislative Elections* (2008) and the 2000 Census State Legislative District Summary File, which was updated in 2005 to include new boundaries from redistricting. The Census data is available at <http://factfinder.census.gov/servlet/DatasetMainPageServlet>. Detailed data, including income and career information, will not be available to the public until 2013. The 2000 Census provides the most updated district level information for the 2001-2010 decade. Various years of the Council of State

Much of the research that used an institutional approach with regard to candidate recruitment has examined the general election and how candidates perform in the campaign or what factors influence candidate entry. Few studies have approached the candidacy process by examining the nomination process except to discuss the growing lack of competition for the election.

Data on primary elections is a virtually untapped resource for studying the “supply” problem of candidates. Burrell (1992) suggests that one of the reasons that women tend to do about as well as men do in the general election is that they have party resources and the party label. Further study of candidate entry is needed to decide whether or not primaries are a barrier for women. Very few studies have examined primary elections at the state level and little is known how candidates fare. The other benefit of examining primary elections is that scholars can examine competition within the primary to see if women do as well as men or as well as they do in the general election. One possibility is that women may be running at the state level, but just are not winning the nomination. To understand the issues surrounding the entry of women candidates, a research design that examines candidate entry into primaries is a necessary first step that this study takes.

As discussed above, the main dependent variable presented in this study is the presence or absence of a woman candidate in the primary race.<sup>6</sup> Within the dataset 13,624 primary races out of the 48,492 total races had at least one woman present. Table 1 highlights some of the descriptive trends within the data across the 49 states in this study. On average, 29 percent of the primary races in each state had at least one woman candidate running between 2001-2010. The three lowest ranked states were Kentucky, South Carolina, and Virginia and each state recorded a woman present in 18 percent of their primary races held between 2001-2010. The state with the best record of women running for office was New Hampshire and 58 percent of the primary races between 2001-2010 had at least one woman candidate run.

---

Government's *Book of The States* were used for institutional data. These data are further explained later in the article.

<sup>6</sup>Candidate names were coded for each of the candidates in the dataset. Feminine sounding names were coded as a woman candidate. Names that were ambiguous in origin were researched using available sources to ascertain sex. The U.S. Census Bureau has a list of most likely women's names. Inter-coder reliability was conducted at a level of agreement of 0.95 and all instances of disagreement over gender were resolved.

Alaska	24	Montana	27
Alabama	19	North Carolina	25
Arkansas	25	North Dakota	32
Arizona	45	New Hampshire	58
California	33	New Jersey	38
Colorado	33	New Mexico	35
Connecticut	28	Nevada	32
Delaware	28	New York	24
Florida	30	Ohio	25
Georgia	26	Oklahoma	19
Hawaii	35	Oregon	29
Iowa	23	Pennsylvania	19
Idaho	34	Rhode Island	23
Illinois	29	South Carolina	18
Indiana	19	South Dakota	33
Kansas	31	Tennessee	20
Kentucky	18	Texas	24
Louisiana	22	Utah	27
Massachusetts	26	Virginia	18
Maryland	43	Vermont	43
Maine	32	Washington	44
Michigan	33	Wisconsin	24
Minnesota	29	West Virginia	30
Missouri	26	Wyoming	24
Mississippi	19		

### 3.2. Structural Factors

Palmer & Simon (2006) utilize several socio-demographic factors within Congressional districts as explanatory factors in determining the likelihood of a woman candidate running in that district. The United States Census Bureau updated its data in 2005 to reflect state lower and upper house districts, which allows researchers and politicians the ability to capture district level factors in those districts. For the purposes of this study, we utilize the percent of Hispanic/Latinos, percent African American/Black, percent Caucasian/White, and the percent Asian/Pacific Islander. In addition to ethnicity concerns, we also determine the urbanization of a district with the percent of the population living in urban areas as designated by the US Census Bureau. Median income was also included as a factor.



Palmer & Simon (2006) include the percent of professional workers in a district to account for the pool of potential candidates. We opt to use the percentage of women in professional jobs, as defined by the US Census Bureau to more narrowly tailor the measure towards our goal of determining a “women friendly” district. In addition to the variable measuring professional work force participation of women, the percentage of women who are 25 and older with a bachelor’s degree were included to account for districts with women who have better education are going to be more likely to produce a candidate.

### 3.3. Institutional Factors

As mentioned above, the characteristics of political institutions and electoral rules structure what type of race that candidates will have to run. Institutions proxy the actual costs, perceived costs, and the perceived benefits or value of winning an office. As mentioned before, often women do not run in professional legislatures, to proxy levels of legislative professionalism, we include a measure of legislative salary (\$1000’s), the number of calendar days a legislature meets, and the number of staff that a legislature has to assist legislators.<sup>7</sup>In addition to office characteristics, we include data relating to the number of seats available in a legislature, the presence of term limits in a state, and the types of laws governing a primary run. Primary type was included to proxy the types of constituencies in which candidates run. Closed primaries focus only within a party and usually extreme partisans run in those races. In open primaries, the median voter tends to approximate what it is like in the general election. Women would do worse in closed primaries. As mentioned above, eight states use some form of multimember district. The literature suggests that women candidates are more likely to run and win in these districts, because the threshold of inclusion is lower.

### 3.4. Political Factors

There are several political factors that must be included in an analysis of elections. The type of political party is important. More often than not, women are going to be present in the Democratic primary and election.

---

<sup>7</sup>Data were obtained from various years of the *Book of the States* produced by the Council of State Governments and the staff and salary estimates were taken from the National Conference of State Legislatures and are available at <http://www.ncsl.org/default.aspx?tabid=14843>.

Women are also more likely to win in the democratic primary. In addition to political party, we include a measure of the number of candidates that are running for office in the primary. The variable ranges from zero, where a party fielded no candidates to a maximum of nine. Districts with more candidates were more likely to be in multimember districts. Competition is an important factor in terms on women candidates running. The expectation would be that fewer women would run in competitive races. In addition to party and competition, we include a measure of incumbency. If there was an incumbent present in the race, women should be less likely to run in races or districts with an incumbent running.

The National Institute on Money in State politics classifies individuals with any political experience as an incumbent in their data. We also include a variable measuring whether or not a state was "southern," using the US Census Bureau's classification of region to determine if a state was a southern state. The expectation for this variable would be that women are less likely to run in traditional states like southern states. Gender roles are more traditional and voters would be less likely to demand women candidates. Women would be more likely to participate in other ways. We also included a constructed measure of ideology to get a more fine grained measure of how liberal a state was using the ideology scores constructed by Pacheco (2011). District measures of ideology and partisanship were hard to determine and state scores provided the closest approximation.

### **3.5. Methods**

To test the above hypothesis, two analyses will be performed. The first component of the analysis will be to construct an index of "women friendliness" similar to that proposed by Palmer & Simon (2006). Palmer & Simon (2006) utilize expectations in the literature to develop their procedure; however state elections have some unique properties for women candidates as discussed above. There are different costs, incentives to run for office, and constituency groups. Particularly, districts that are supportive of women candidates are going to be in districts that are likely to support Democratic candidates, with low entry costs, and with a higher number of professional women.

The second component of the analysis will be to test which of the hypothesized factors from the literature are related to women candidates running in the primary.

As the dependent variable is binary and the data is cross-sectional time series, certain modeling procedures need to be utilized to take into account for the fact that the dataset included different years, states, and districts. The data are clustered around certain groups and a model that does not account for this will produce standard errors that are reduced in size, leading to the possibility of type II errors (Beck, Katz, & Tucker, 1998). In addition to testing each of the factors independently, we will use the index of “friendliness” as a covariate in the model.

#### **4.1. Constructing an Index of Women Friendliness**

Based on the expectations in the literature, we construct an additive index of the presence or absence of certain factors relating to the election of women candidates. The procedure is very similar to the additive index constructed by Palmer & Simon (2006) for congressional districts in which they construct an index to measure the likelihood of a Democratic candidate winning the election. The logic of winning can be adapted for candidate emergence, because women tend to be risk adverse and only run when they think they have a good shot. If the district has one of the factors that should lead to a positive or friendly environment for women it is given a score of “1” and the factors are added together. The index ranges from 0-18 where high values indicate districts that are more “friendly” for women candidates. Following the general themes in the literature, women are going to run where the Democratic Party has the best chance of winning. These districts are going to be more urban/working class with more ethnic minorities like African Americans and Latinos. Women candidates are also going to do better in areas where the eligible pool of voters is better. Districts where higher percentages of women have a college education and more professional careers will be friendlier for women candidates. Women are also going to run where the costs are minimal and the access fees are nominal. Women candidates are also less likely to run in districts that are more professionalized, because of the competition for those districts.

A score of “1” was given to a district that had a value above the median value for: percent African American population, percent Latino population, percent urban population, percent of women in a district with a “professional” job as described by the US Census, an above average percentage of a school age population, and if their median income was above the average for the state. A score of “1” was also given to districts that were below the state median percentage of white or Asian population.

In addition to socio-demographic factors, a score of "1" was given to districts that had an above average proportion of people reporting to be "liberal".

Electoral institutions are also important. Districts that were considered "multimember" were also given a "1" and added in with the index. Twelve chambers across the 50 states have multimember districts. Maryland, Vermont and West Virginia's upper chamber has multimember districts. Arizona, Maryland, New Hampshire, New Jersey, North Dakota, South Dakota, Vermont, Washington, and West Virginia's lower house have multimember districts. Primary rules are important. Districts without closed primaries were given a score of "1" because women candidates perform better in more open constituencies and areas where the party organizations are not as strong (Niven 1998; 2006).

In addition to socio-demographics and election rules, incentives to run for office are important. We include measures of salary, staff, and time in office. Districts residing in states which had a salary and staff level below the national median received a "1" on the index. Districts residing in states with a days in session above the national median, received a "1" on the index. Women candidates tend to care more about policy and social aspects of political office. Women run for office for different reasons than men. As such, women candidates tend to not run in professionalized legislatures. States with higher level of staff and salary tend to not elect women. Competition or the perception of competition for these valuable seats would be a deterrent for women candidates. In addition, we include an indicator of whether or not a state had term limits. As term limits would create open seats and decrease the value of the office for male candidates, women would be more likely to run in those districts. Districts residing in states with term limits received a "1" on the index. In addition to things like salary and term limits, the office type matters. Women tend to run in lower chambers more than the upper houses. If a district was a lower chamber, we marked it as a "1".

Though important factors to consider in a model of "friendliness," incumbency, party type, and the number of people running in a primary were not included in the scale. They are important control variables to consider in determining whether or not a woman candidate will run for office, but are not characteristics of the district. They are characteristics of the political race for that district. These factors change and are not consistent over time. We do not include a measure of which party ran the primary in the index.

Though women are far more likely to run in the primaries of the Democratic Party, the party running the primary is not a characteristic of the district. This remains an important control in the model.

### **5.1. The Effect of “Women Friendly” Districts**

The average level of women friendliness across the 49 states and 10 years in presented in this study is 10, with a standard deviation of 2.45. The index of “women friendliness” does correlate with the presence of woman candidates. The gamma correlation between the index and the variable indicating the presence or absence of a woman candidate is 0.118 with an ASE of .006. This indicated a weak to moderate relationship. A  $\chi^2$  test was also performed to determine if the differences between the districts with at least one woman candidate were statistically different from the districts without any women candidates, with regards to the level of “friendliness” and the  $\chi^2$  statistic was 377.196. With a degree of freedom of 13, this indicates that the observed differences were statistically significant at the 0.01 level. So, districts with a higher number of factors that are “friendly” to women candidates is related to women candidates running for office.

The second component of the analysis is to conduct a multivariate analysis highlighting the effect that the new index has. Table 2 highlights the multivariate findings. The first model is a fully specified model, in which all factors are included as covariates and second model is a restricted model in which the index of women friendliness was used. Both models utilize a random effects logistic model. As discussed above, certain methodological procedures need to be utilized in order to account for clustering around years, states, offices, and districts. The coefficients reported in the tables represent the change in the likelihood of observing a woman candidate in a primary race.

The first model, highlighted in Table 2, provides some interesting insights into the factors that are related to the emergence of women candidates. Consistent with the literature on the “political pipeline”, state legislative districts with a higher median incomes and with a higher percentage of women with professional jobs are more likely to have a woman candidate present in the primary. In addition to these findings, districts with a higher percentage of the population classified to be an “urban” population are more likely to have women present in the primary.

These districts offer more political and networking opportunities for women candidates. One surprising finding is with school age population.

Palmer & Simon (2006) suggest that a higher percentage of school age population would lead to a district being less “friendly”, because women would be more likely to want to stay out of politics and focus on their families, as women tend to be the primary caregiver for children. The data showed a different story. As the percentage of school age population increased, the likelihood of a women candidate being present in the primary also increased. This finding could be an indicator of the fact that women often start their political careers in state and local governments, because of their connections to their children. As the percentage of a population who were Latino increased, the likelihood of a woman candidate being present in the primary increased as well. Women candidates were also less likely to be present in primaries ran in districts with a higher population.

In addition to the demographics factors, political and institutional factors also played a role in the full model. As the liberalism score increased, a woman candidate was more likely to be present in the primary. As expected, a woman candidate was more likely to be present in the primaries of the Democratic Party. A woman candidate was less likely to run as an independent or in a third party. In terms of primary rules, women were less likely to be present in primaries held in states with a closed primary system, but were likely to be present in the primaries held in multimember districts.

<b>Table 2: Women Friendly Districts and the Presence of Women Candidates</b>		
	Model 1	Model 2
District Median Income (\$1,000)	0.007** (0.003)	
District Urban Population (%)	0.009** (0.001)	
District Women with Professional Job (%)	0.020** (0.006)	
District African American Population (%)	0.008 (0.005)	
District Latino Population (%)	0.010** (0.004)	
District White Population (%)	-0.002 (0.005)	
District Asian Population (%)	0.008 (0.009)	
District School Population (%)	0.006(a) (0.003)	
Liberalization Score	0.038** (0.007)	
Democratic Party Primary (1,0)	1.136** (0.055)	1.192** (0.055)
Independent / Third Party Primary (1,0)	-0.284** (0.088)	-0.197* (0.088)
Closed Primary System (1,0)	-0.214** (0.068)	
Multimember District (1,0)	0.922** (0.095)	
District Population (10,000)	-0.011** (0.003)	
House Race (1,0)	-0.036 (0.067)	
Incumbent Present (1,0)	-0.144** (0.044)	-0.127** (0.043)
Number of Candidates in Primary (#)	1.132** (0.028)	1.165** (0.027)
Legislative Salary (\$1000)	-0.005** (0.002)	
Legislative Staff Resources (#100's)	0.001 (0.007)	
Calendar Days in Session (1,0)	0.004** (0.000)	
Presence of any Term Limits (1,0)	0.272** (0.065)	
Index of "Women Friendliness"		0.124** (0.010)
Constant	-6.805** (0.585)	-5.389** (0.135)
Observations	48492	48492
Panel Groups (Primary Race)	24908	24908
Wald Chi <sup>2</sup>		
Note: Standard errors in parentheses. (a) significant at 10%; * significant at 5%; ** significant at 1%		

Incumbency remained a barrier for women candidates. Women were less likely to be present in primaries if there was an incumbent of either party present. This is expected given the risk adverse nature of women candidates. The one unexpected finding was that as the level of competition increased, in terms of the number of candidates running, women were far more likely to be present in the primary. This may be an artifact that many of the contested races were held in multimember districts.

The variables measuring the professionalization of a legislature had some expected results. Salary was negatively related to the presence of women candidates. This is expected. Several scholars have noted that women tend to not be represented in states with highly professional legislatures. Because the benefits of the office are attractive to many people, competition for the office would be greater. Women may not want to run or there may not be open seats for women candidates. Tenure tends to be higher in more professional legislatures. The level of staff resources was not statistically significant. Time on the job was statistically related to the presence of women candidates in the primaries. As the days in session increases, women were more likely to be present in the primaries. There are two reasons for this finding. Kurtz et. al. (2006) finds that women often spend more time in their legislative duties, because they care about constituent service. The second reason is that the more time spent in session may take away the attractiveness of the position for other candidates, particularly if they are not well compensated for the task. The presence of term limits was also correlated with the presence of term limits. Primaries ran in states with any type of term limits were more likely to have at least one woman in the primary.

The interesting findings came in terms of the costs or barriers to entry. Several scholars found that women had a harder time fundraising and organizing early in the campaign (Burrell, 1994; Farrar-Meyers, 2003). The variables indicating the fee requirements or states with both signatures and fees were not statistically significant. This means that cost was not a prohibitive factor for women candidates. This may be because of the proliferation of women's interest and donor networks focusing on electing women at the state level (CAWP, 2014).

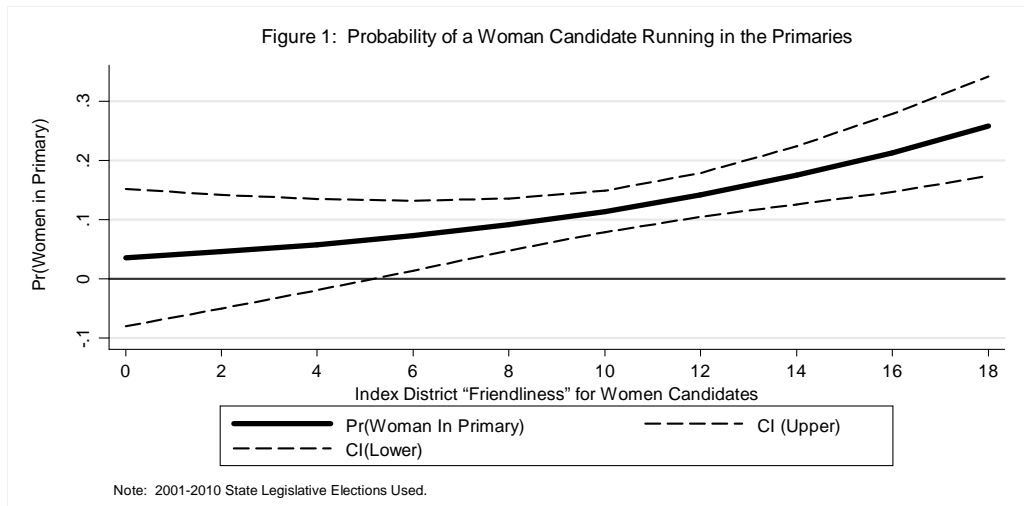


The second model highlighted the index of women friendliness. As with the full model, we utilized a random effects logit with some control variables. In addition to the index of friendliness, we included party type, the level of competition, and the presence of an incumbent or previous office holder in the model<sup>8</sup>. As discussed above, the main variable of interest was a constructed index of many factors ranging from 0 – 18 highlighting a summation of items that are likely to be related to a “winning” environment for women. The model shows that this index performs as expected. As the index of “friendliness” increases the likelihood of a woman candidate being present in the primary also increases. Even with controls, the index performs well. With all variables in the second model held at their central tendency, the probability of observing a woman candidate in a primary is 0.118. If the index of “friendliness” is increased by a standard deviation from the mean of 10.25 to 12.75, the probability of observing a woman candidate in a primary is 0.154. The control variables behaved as expected and had a similar effect as presented in Model 1.

Figure 1 highlights the effects of the index of women friendly district factors. We used the second model to predict the probability of a woman being present in a primary at each level of the index. All other factors in the model were held constant at their central tendencies. The figure shows that a district with no factors that are supportive of women candidates the probability that a woman will run in the district is near zero. At the highest value of the index, 18 factors, a woman candidate had a probability of 0.30 of being present in the primary. Though any increase in the index of “friendliness” towards women increased the likelihood of women running, the index had a statistically significant increase the probability of observing a woman candidate at a score of six or above. As showing in Figure 1, the confidence intervals do not cross zero anywhere above this score.

---

<sup>8</sup>The control variables were not included in the index as they are not characteristics of the district, but characteristics of the political environment.



## 6.1. Conclusions

The first thing to note in this analysis is that political geography does influence where women candidates are likely to run. The analysis shows that there are particular districts in which women are likely to run for office and these tend to be districts with a great deal of resources and with a population that is ready to support a woman candidate with resources. This finding supports previous work that suggests similar findings from Congress.

Other than highlighting that women run in very different districts than men, this analysis also helps to answer the original puzzle posed by this study relating to why women are better represented in some states than in others. There were 13,624 races which had a "women friendliness" score of six or higher. Many states have more districts with these factors than others. As mentioned above, New Hampshire has about 38 percent women in its legislature and over 257 districts that were "friendly" to women candidates. South Carolina posted about 10 percent women's representation and they had about 179 districts that had characteristics that were "friendly" to women candidates.

The relationship between districts that are "friendly" to women candidates and their legislative representation is not perfect. There are some states with a great deal of potential, but the politics has not been in favor of women candidates. In a recent study by Sanbonmatsu & Carroll (2013), the authors suggest that there is a lot more room for women to run for office.

Many are not running because of personal reasons or are not recruited by parties. This study shows that the solid foundation is present and that if women decided to run, they would have a good chance to win the primary and even the nomination.

## References

- Beck, N. and Katz, J. (1995). What to do (and not to do) with time-series cross-section data. *The American Political Science Review*, 89(3), 634-645
- Belkin, L. (2003). The opt out revolution. *New York Times Magazine*, Oct. 23, 2003, 42-54.
- Biersack, R., Herrnsen, P.S., & Wilcox, C. (1993). Seeds for success: Early money in Congressional elections. *Legislative Studies Quarterly*, 18(4), 535-551.
- Black, G. S. (1972). A theory of political ambition: Career choices and the role of structural incentives. *The American Political Science Review*, 66(1), 144-159.
- Breaux, D. & Jewell, M. (1992). Winning big: The incumbency advantage in state legislative races. In G.F. Moncreif & J.A. Thompson (Eds). *Changing patterns in state legislative careers*. Ann Arbor, MI: University of Michigan Press.
- Bureau of Labor Statistics (2007, September). *Women in the labor force: A databook. Report 1002.* Bureau of Labor Statistics, U.S. Department of Labor. [Online] Available: <http://www.bls.gov/cps/wlf-databook-2007.pdf>. (June 10, 2008)
- Burrell, B. (1992). Women candidates in open-seat primaries for the U.S. house: 1968-1990. *Legislative Studies Quarterly*, 17(4), 493-508.
- Burrell, B. (1994). *A woman's place is in the House: Campaigning for congress in the feminist era*. Ann Arbor: University of Michigan Press.
- Carroll, S. (2001). *Women as candidates in American politics*. 2nd ed. Bloomington: Indiana University Press.
- Carroll, S. J. & Sanbonmatsu, K. (2013). *More women can run: Gender and pathways to the state legislatures*. New York, NY: Oxford University Press.
- Carroll, S. J., & Strimling, Wendy S. (1983). *Women's routes to public office: A comparison with men's*. New Brunswick, NJ: Center for the American Woman and Politics.
- Center for the American Woman and Politics. (2014, May). *Women in elective office fact sheet*. [Online] Available: [http://www.cawp.rutgers.edu/fast\\_facts/index.php](http://www.cawp.rutgers.edu/fast_facts/index.php). (December 10, 2014).
- Constantini, E. (1990). Political women and political ambition: Closing the gender gap. *American Journal of Political Science*, 34(3), 741-770.
- Council of State Governments. (Various Years). *Book of the States*. Lexington, KY: Council of State Governments.
- Darcy, R. & Schramm, S.S. (1977). When women run against men. *Public Opinion Quarterly*, 41, 1-12.
- Darcy, R., Welch, S. & Clark, J. (1987). *Women, elections, and representation*. New York: Longman Press.
- Delli – Carpin, MX & Fuchs, E. R., (1993). The year of the woman? Candidates, voters, and the 1992 elections. *Political Science Quarterly*, 108(1), 29-36.

- Duerst-Lahti, G. (1998). the bottleneck: Women becoming candidates. In S. Thomas & C. Wilcox (eds). *Women and elective office: Past, present, and future*. New York: Oxford University Press.
- Farrar-Myers, V. (2003). A war chest full of Susan B. Anthony dollars: Fund-raising issues for Female Presidential Candidates. In R.P. Watson & A. Gordon (eds). *Anticipating Madam President*. Boulder, CO: Lynne Rienner Publishers.
- Fowler, L. & McClure, R. D. (1989). *Political ambition: Who decides to run for Congress*, New Haven, CT: Yale University Press.
- Fox, R. (2004). Entering the arena? Gender and the decision to run for office. *American Journal of Political Science*, 48(2), 246-280.
- Fox, R. & Lawless, J. L. (2005). To run or not to run for office: Explaining nascent political ambition. *American Journal of Political Science*, 49(3), 642-659.
- Fulton, S., Maestas, C.A., Maisel, S., & Stone, W. 2006. The sense of a woman: Gender, ambition, and the decision to run for Congress. *Political Research Quarterly*. 59(2): 235-248.
- Jacobson, G.C. & Kernell, S. (1983). *Strategy and Choice in Congressional Elections*. New Haven, CT: Yale University Press.
- Jenkins, S. (2007). A woman's work is never done? Fund-raising perception and effort among female state legislative candidates. *Political Research Quarterly*, 60(2), 230-239.
- Kurtz, K.T., Moncrief, G., Niemi, R., & Powell, L. (2006). Full -time, part-time, and Real-time: Explaining state legislators' perceptions of time on the job. *State Politics and Policy Quarterly*. 6(3), 322-338.
- Lawless, J.L. & Fox, R. (2005). *It Takes a Candidate: Why Women Don't Run for Office*. New York, NY: Cambridge University Press.
- Lawless, J.L. & Fox, R. (2010). *It Still Takes a Candidate: Why Women Don't Run for Office*. New York, NY: Cambridge University Press
- Lawless, J.L. & Fox, R. (2010). If only they'd ask: gender, recruitment, and political ambition. *Journal of Politics*., 72(2), 310-326.
- Lilly, W., Defranco, L.J., Bernstein, M.F. & Ramsby, K.L. (2007). *Almanac of state legislative elections (3rd Edition)*. Washington, DC. CQ Press.
- Lovenduski, J. & Norris, P. (1993). *Gender and Party Politics*. London: Sage Publications.
- Maisel, L. S. & Stone, W. (1997). Determinates of candidate emergence in U.S. House elections: An exploratory study. *Legislative Studies Quarterly*, 22:79-96.
- Moncrief, G.F. (1999). Recruitment and Retention in U.S. State Legislatures. *Legislative Studies Quarterly*, 24(2), 173-208.
- Moncrief, G. F. & Thompson, J.A. (1992). *Changing Patterns in State Legislative Careers*. Ann Arbor: University of Michigan Press
- Nechemias, C. (1985). Geographic mobility and women's access to U.S. legislative seats. *Western Political Quarterly*, 38(2), 119-131.
- National Institute for Money in State Politics. (2014, May). "Contributor Summaries." December 10. <http://www.followthemoney.org/>.
- Niven, D. (1998). *The Missing Majority: The Recruitment of Women as State Legislative Candidates*. Westport CT: Praeger.
- Niven, D. (1998). "Party Elites and Women Candidates: The Shape of Bias." *Women & Politics*. 19:57-80
- Niven, D. (2006). Throwing your hat out of the ring: Negative recruitment and the gender imbalance in state legislative candidacy. *Politics and Gender*, 2, 473-489.

- Norrander, B., & Wilcox, C. (1998). The geography of gender power: Women in state legislatures." In S. Thomas & C. Wilcox. *Women and elective office: Past, present, and future*. New York: Oxford University Press.
- Pacheco, J. (2011). Using national surveys to measure dynamic U.S. state public opinion: A guideline for scholars and an application. *State Politics & Policy Quarterly* 11(4): 415-539.
- Palmer, B. & Simon, D. (2003). Political ambition and women in the US House of Representatives, *Political Research Quarterly*, 56(2), 127-138.
- Palmer, B. & Simon, D. (2006). *Breaking the political glass ceiling: Women and congressional elections*. New York: Routledge.
- O'Conner, K. (2001). *Women and congress: Running, winning, and ruling*. New York: Hawthorn Press.
- Sanbonmatsu, K. (2002). Political parties and the recruitment of women to state legislatures. *The Journal of Politics*, 64(3), 791-809.
- Sanbonmatsu, K. (2006). Do parties know 'That women win'? Party leader beliefs about women's electoral chances. *Politics & Gender*, 2, 431-450
- Sanbonmatsu, K. (2006). *Where Women Run: Gender and Party in the American States*. Ann Arbor, MI: University of Michigan Press.
- Thomas, S. & Welch, S. (1990). the Impact of Gender on Activities and Priorities of State Legislators. *The Western Political Quarterly*, 445-456.
- United States Census. (April 10, 2010). *Genealogy Data: Frequently Occurring Surnames from Census 1990 – Names Files*. Retrieved, [http://www.census.gov/genealogy/www/data/1990surnames/names\\_files.html](http://www.census.gov/genealogy/www/data/1990surnames/names_files.html)
- United States Census. (March 12, 2014.) *2010 Census Data and Resources [P.L. 94-171 Summary Files.]* Retrieved, [https://www.census.gov/rdo/data/2010\\_census.html](https://www.census.gov/rdo/data/2010_census.html).
- Welch, S. & D. T. Studlar. (1990). Multi-Member Districts and the Representation of Women: Evidence from Britain and the United States. *The Journal of Politics*, 52(2). 391-412.
- Welch, S. & D. T. Studlar. (1996). The Opportunity Structure for Women's Candidacies and Electability in Britain and the United States." *Political Research Quarterly*, 49(4), 861-874.
- Werner, B. (1993). *Bias in the Electoral Process: Mass and Elite Attitudes and Female State Legislative Candidates, 1982-1990*. (Unpublished Doctoral Dissertation.) Washington University, St. Louis.