

Ballot Access Rules and the Entry of Women Candidates in State Legislative Primaries

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Abstract

This study uses a novel set of data from the National Institute for Money in State Politics to understand the impact that ballot access rules have on the emergence of women candidates the state legislative primary elections from 2001-2010. Most studies examine the candidacy decision of women by studying their individual motivations and ambitious, but ignore institutional arrangements which produce potential opportunity costs and organizational costs. The data in this study clearly show that ballot access rules like signature requirements and filing fees pose undue costs on women candidates and decrease their likelihood of running for state legislative office. A binary cross sectional time series model with fixed effects is used to test hypotheses across 49 states and over 37,000 primary races.

Keywords: Ballot access, candidate emergence, gender gap, women and politics

1.1. Introduction

Multiple studies have documented the incumbency advantage in United States congressional elections. The Center for Responsive Politics reported that in 2012, 90 percent of the members of the US House of Representatives and 91 percent of the US Senate members were reelected. Part of the reason for this trend is that so few candidates are running against the sitting incumbent. One study found that in 2004, 43 percent of the winning candidates faced either no competition from a major party or won by at least 40 percentage points (Abramowitz, Alexander, & Gunning, 2006).

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This finding at the congressional level is echoed by “vanishing marginals” in state elections, which shows that the incumbency advantage is an entrenched element in all levels of American politics (Weber, Tucker, & Brace, 1991). One understudied element of the incumbency advantage is that states and state parties impose legal barriers to candidate entry. These rules impose real costs on candidates to even be included on the ballot and limit overall levels of competition. Current research on congressional and state legislative races suggests that these rules, particularly filing fees are far too stringent and decrease competition more than they need to (Ansolabehere & Green, 1996; Stratman, 2005).

Though overall competition is decreased as a result of ballot access rules, one interesting avenue of research that has not been explored is how these rules may influence the entry of women candidates. The conventional wisdom is that when women run, they usually fair about as well as men do in the general election, but have challenges in the primary or even deciding to enter the race (Burrell, 1992). Usually, the biggest impediment for women candidates in running for office seems to be a lack of open seats (Kirkpatrick, 1974; Darcy, Welch, and Clark, 1987; Burrell, 1992; 1994). The extant research on ballot access rules suggest that they promote incumbency and decrease the likelihood of new candidates entering. If these rules tend to decrease open seats or deter challengers, then their effect may negatively impact women candidates though the laws do not treat women differently than men. Women face unique challenges as candidates and increasing barriers will further depress the representation of women across the 50 states.

Using state legislative primary data from 2001 - 2010, this study argues that strict ballot access rules decrease the likelihood of women candidates entering or being present in the primary election. Though these laws do not treat women and men differently, there may be a situation in which the unique experiences of women candidates cause them to be impacted negatively as a result of the presence of these laws. The primary election is important to study, because this is the gateway to the general election and a necessary step for most candidates. The primary process is already considered “gendered”; women candidates are already seen as vulnerable and garner more challengers (Lawless & Person, 2008). As women face more challenges and often more challengers than men, when running for office, states with more stringent ballot access rules may decrease the likelihood of women candidates running for office.

1.2. Women as Candidates and Challengers

The gap in women's representation in the fifty states is well documented. The Center for American Women in Politics (CAWP) records the historical trends of women's representation at all levels of government. In 1971, when CAWP started tracking women in the states, only 4.5 percent of all legislators were women. In 2014, this percentage has grown to 24.2 percent (CAWP, 2014). Women have accomplished much in this regard, but there are still many discrepancies. Since 2000, the percentage of women in state legislatures has remained almost stagnant with only a two percent increase (CAWP, 2014). In addition to these statistics, there are vast differences between the states. In 2014, the state with the best track record in electing women was Colorado with 41 percent and the state with the worst track record was Louisiana with 12.5 percent (CAWP, 2014). There are many reasons that these discrepancies exist and most center on the fact that women are not running for office in large numbers.

In a study of age eligible voters conducted by the Pew Research Center, 71 percent of respondents reported that candidate gender "would not matter" in regards to their vote choice (Pew Research, 2014). Party elites are supportive of women candidates in the abstract and women tend to perform as well as men when they are running in open seat elections (Lawless & Fox, 2010; Carroll & Sanbonmatsu, 2013). The problem is that more women could be running, but are not (Carroll & Sanbonmatsu, 2013). Much of this is due to the unique electoral environment that women face in state elections.

Women candidates face a very different environment than men do when deciding to run for office. Typically they need a lot more encouragement to run for office, reporting the need to feel "twice" as good as their male counterparts (Lawless & Fox, 2005; 2010). They face some implicit bias from party elites and may face negative recruitment (Sanbonmatsu, 2006b, Niven, 2006). They deal with difficulties in getting the media to take their campaigns seriously, which leads to trouble raising funds early (Farrar-Myers, 2003). Women also have concerns about the difficulty of raising funds which causes them to forgo running for office (Jenkins, 2007). Women candidates also have some situational and life choices to deal with in taking care of their families (Welch 1977; Nechemias, 1985; Carroll & Sanbonmatsu 2013).

In studies of the gender gap, many scholars point to these unique experiences of women candidates as a reason why more women are not running for office, however the decision to run for office is more complex than pointing to the factors listed above.

Women often view their political options through the lens of others. Carroll & Sanbonmatsu (2013) propose a “relational model” of candidate in their most recent work. The authors surveyed around 2600 men and women sitting legislators to talk about their paths to office. They found that women have to “vet” their candidacy decisions through their families and spouses before they run for office. Of particular concern are the thoughts of children, spouses, and social networks. Women need to be asked several times before considering a run for office. Around 56 percent of women in their study said that they had “not seriously thought about running until someone else had suggested it” whereas 30 percent of men had that experience. Men typically need less encouragement and are usually more “self-starting” (Carroll & Sanbonmatsu, 2013). These issues highlight that women candidates are very careful and strategic when they decide to run for office. Women are very strategic, only after very careful consideration do women decide to run.

2.1. Strategic Politician Model

Black (1972) highlights a strategic candidacy model. This model highlights the costs and benefits of running for office. In the basic form, the theory assumes that candidates weigh the costs of running for office with the benefits of getting the office. If a candidate's utility structure weighs the benefits of office higher than the perceived “costs” then he or she will decide to run for that office. Given this idea, mixed with the growing body of research on the incumbency advantage suggested above, scholars suggest that the choice to run for political office is strategic. Candidates will run for office when the time is right for them (Black, 1972; Jacobson & Kernell, 1981; Palmer & Simon, 2008). Dowling expanded and updated this model. He suggests that there is far too much attention paid to the situational/personal concerns that candidates have to deal with. There is very little known about how institutions or structural barriers influence the decision calculus of candidates (2008). Dowling's (2008) updated model to describe candidate / challenger emergence is pictured below.

$$u(O) = P(B) - (C_{inst} + C_{pers})$$

Here, the utility of the office (or value) is equal to the probability of gaining the benefits office ($P(B)$) discounted by the sum of the personal or situational cost (C_{pers}) for running for office and the institutional or opportunity costs (C_{inst}) for running for office.

This model is a very interesting heuristic for describing why women would decide to run for political office. Most theories lump the personal or situational (C_{pers}) costs of running for office and neglect the structural or institutional costs (C_{inst}) that may have their own independent or systematic effect on the decision to run for office. As discussed in the section above, women have many different personal costs associated with running for office that men do not have to pay. Usually men do not have to battle the negative media bias, political elite bias, are usually more likely to consider a political career, and do not feel the immediate connection to family responsibilities that women do. Though it is generally understood that women candidates face different personal/situational costs than men, very little is known about how institutional factors influence the decision to run or how personal costs interact with institutional factors. Most of the research on the gap in the representation of women has focused on the personal or situational costs of candidates running for office, with very little reference to other factors. If scholars are going to flesh out reasons why women candidates choose to run, more research needs to explore these institutional factors.

One of the reasons that scholars have not explored the effect that institutional costs have on the emergence of women candidates/challengers is that studies of the gender gap use national samples and institutions. A state level approach reveals much more institutional variation and could reveal much more about whether or not political institutions influence the decisions to run for office. There are a several studies that explore how institutional factors, like electoral system or district type, influence candidate emergence by influencing the ability of women to win, this study will focus on the case of ballot access rules (See Moncrief & Thompson, 1992; Matland & Brown, 1992; King, 2002). The case of ballot access rules is very interesting because these policies impose direct costs on the decision to run for office, whereas many studies of institutional effects structure the implied or opportunity cost associated with running for office.

2.2. The Case of Ballot Access Rules in the 50 States

There has not been a great deal of research on the effects ballot access rules and filing fees. In their seminal study on the effects of ballot access rules in Congressional elections, Ansolabehere & Gerber (1996) find that filing fees and signature requirements had a significant impact on levels of competition as measured by vote share, whether or not candidates retired, and whether or not the seat was uncontested. All of these variables measure similar aspects of competition or emergence. The logic that Ansolabehere & Gerber (1996) utilize suggests that these access rules amount to entry costs. If they are extremely high, then this may deter candidates from entering the race at all.

At the state legislative level, the effects of these rules are somewhat unknown. Stratman (2005) studies the effects at the state level and found similar findings as Ansolabehere and Gerber (1996) at the district level. Essentially, Stratman (2005) finds that filing fees matter more for candidate entry and competition levels. This logic fits. Filing fees have a direct impact on who can run for office, given that some states require anywhere between one percent and five percent of the salary of the office, the fees could be quite substantial. The signature requirements are potentially designed to help those that could not pay the fees to have a feasible way to access their party's nomination, however both Ansolabehere and Gerber (1996) and Stratman (2005) find that signature requirements still pose a significant barrier.

Table 1, below, highlights the state of ballot access rules in the upper chamber of the 50 states. The data were gleaned from state election websites and state party websites¹. Often laws are written to be flexible standards based off of the percentage of a position's salary or of the vote achieved in a district, so the numbers presented in the tables are examples of "real" estimates of dollars or signatures needed. This study concerns itself with only the candidates running and not the emergence of third party candidates. Usually the requirements for third party candidates and independents are very onerous and difficult to overcome.

Currently every state but Connecticut uses some form of ballot access rules for state legislative races. Connecticut has adopted a convention system in which it is up to the political parties to nominate. Seven states utilize both filing fees and signature requirements. These are Hawaii, Idaho, Nevada, New Mexico, Ohio, Pennsylvania, and Virginia.

The average filing fee is \$174.00 for the states using that as an access requirement. The average signature requirement was 207 signatures. Twenty six states require candidates to pay filing fees and fifteen states require candidates to utilize signatures. The requirements vary by a large margin. Utah only requires a very small percentage of the state salary, thus only costs around \$79.80 to run for the upper chamber, whereas Delaware sets a fee of \$1590.00 to run for upper house races. Maryland just requires candidates to pay a \$50.00 filing fee. Signature requirements range from a low of 25 signatures in Maine to a high of 2,100 signatures in Illinois for upper house elections. Table 1, below highlights the fees and signatures for the upper chambers of state legislatures. Many states require a percentage of the vote for signatures or a percentage of the salary of a position. These items were estimated in "real" dollars and signatures.

<i>State</i>	<i>Signatures (#)</i>	<i>Filing Fees (\$)</i>	<i>State</i>	<i>Signatures (#)</i>	<i>Filing Fees (\$)</i>
Alabama	0	1100	Montana	0	15
Alaska	0	100	Nebraska	0	120
Arizona	1100	0	Nevada	0	100
Arkansas	0	4500	New Hampshire	20	10
California	3000	952	New Jersey	1000	0
Colorado	1000	0	New Mexico	750	50
Connecticut	2000	0	New York	1000	0
Delaware	0	0	North Carolina	0	207
Florida	0	1782	North Dakota	300	0
Georgia	0	400	Ohio	50	85
Hawaii	15	250	Oklahoma	0	200
Idaho	50	30	Oregon	500	25
Illinois	1500	0	Pennsylvania	500	100
Indiana	1000	0	Rhode Island	100	0
Iowa	100	0	South Carolina	0	416
Kansas	130	130	South Dakota	50	0
Kentucky	0	200	Tennessee	25	0
Louisiana	500	600	Texas	5000	750
Maine	150	0	Utah	0	79.8
Maryland	0	50	Vermont	100	0
Massachusetts	300	0	Virginia	250	0
Michigan	600	100	Washington	421.06	421.06
Minnesota	0	100	West Virginia	0	200
Mississippi	0	300	Wisconsin	800	0
Missouri	0	100	Wyoming	0	0

Ballot access rules impact women candidates in two ways. The first is that these laws increase the incumbency advantage for candidates and decrease open seats. The second is that they add additional organizational challenges to secure funds or signatures. As women tend to weight the costs of running for office more than men, these policies could have a differential impact on women. The laws do not treat women candidates any different from men, but their outcomes may have desperate impacts. This study will determine if women candidates are negatively impacted by these rules.

2.3. Hypotheses and Expectations

Given the unique experiences of women in running for office mentioned above and the known effects of ballot access rules, one can draw several conclusions about how ballot access rules might influence the likelihood of women candidates running for office.

H1: Women candidates are less likely to run in districts with filing fee requirements.

H2: Women candidates are more likely to run in districts with petition or signature requirements.

As filing fees increase, the likelihood of a women candidates running in a district should decrease. As women are seen as having a difficult time securing funding for the early campaign, women would be less likely to run if the fees are too high (Uhlender&Schlozman, 1986; Farrar-Meyers, 2003). The literature on ballot access rules has come out in favor of signature/petition requirements in the place of filing fees. The logic is that signature requirements would be an easier hurdle for most candidates to overcome. So, the expectation is that signature or petition requirements would be more amiable for women candidates in considering a run for office, since they allow candidates without a lot of money or organization resources the ability to gain access to the ballot. Alternatively, these institutions could also be problematic. A barrier to access is still a barrier to access.

H3: Women candidates are less likely to run in districts with both filing fees and petition/signature requirements.

Ansolahehere and Gerber (1996) suggest that all candidates will have a difficult time choosing to run for office in states with both filing fees and signature requirements. Because organizational and financial resources are scarce in the states, women candidates are going to be less likely to run in districts with such stringent requirements. Women candidates would have to organize a more robust campaign organization. Given that women are less likely to be “self-starters”, this may be one of the biggest hurdles.

3.1. Methods and Data

To test the above hypothesis, a dataset was constructed from the candidate summaries and metadata from the National Institute for Money in State Politics, a nonpartisan 501(c)(3) organization that catalogs state and local campaign finance information. The organization is funded from private charities, charitable donations, and contract work associated with its databases. All data from the Institute is publically available through its website’s application programming interface (API) system or from bulk download from the Sunlight Foundation’s “Influence Explorer”ⁱⁱ. In addition to candidate information, the Institute collects information on which candidates won their races, the party membership of the candidates, the incumbency status of the candidates, and how many candidates ran in the race. This data includes all states with a partisan election system and all primary elections from 2001-2010. Nebraska was not included because there are no partisan races.

This data source is interesting for studying the emergence of candidates, because it includes all of the candidates who actually filed, whether or not they actually competed in a primary. Using primary data in this fashion may overestimate the number of quality challengers/candidates in an election, but it is a realistic picture of the potential candidate pool and the universe of candidates who were at least ambitious enough to file paperwork to run for political office. Often studies focus on just the general election or the primary election and miss candidates that dropped out or were deterred in earlier stages of the process, this dataset corrects for the problem.

Previous studies examined the effects of fee requirements and petition/signature requirements for congressional competition. Instead of examining general levels of competition in a district, this study examines the likelihood of a woman candidate being present in the primary.

This is indicated with a dichotomous variable measuring the presence or absence of a woman candidate in a race. Candidate sex was coded by examining publically available information initially and then using the “Frequently Occurring Names List” from the US Census to determine sex by the first name of the candidateⁱⁱⁱ. Two coders were used to code the gender. The intercoder reliability was 0.90. Any differences between the two coders were resolved in the final cleaning of the data.

There are two independent variables of interest^{iv}. The first is the average signature requirement for an office. Many states require a two or three percent of the party’s district vote in the previous year’s election to qualify for the ballot. To account for this, an average for the state was used. The second variable is the amount of filing fees. Filing fees are measured in real dollars. Like rules regarding signatures, some states require just a percentage of the salary of the office being sought, so the actual amount for the office is used in measuring the fees. Some states require both filing fees and signatures, so a variable measuring the interaction was also included into the model.

Many scholars use legislative professionalism as an indicator of the value of the office. Legislative professionalism is an aggregate indicator of the capacity of the office to engage in policymaking. Squire breaks this down into staff, salary, and time in office (Squire, 2007). A highly professionalized legislature is closer to the US Congress in terms of its capacity, thus more desirable for candidates. To proxy legislative professionalism and value, this study uses the salary of the office which is taken from various years of the *Book of the States*. Staff and time in office are highly correlated with salary, thus are not used in this context. The type of office being sought was also included as a control. Since the value of the office is different for Republicans and Democrats, party type was included in the model (Sanbonmatsu, 2002).

The literature has standard variables to include when examining women running for office. These variables highlight what is known as an “eligible” pool of candidates. To account for some of these factors, this study includes measures of percent urban population and percent of women with a professional job or with a professional degree. Both of these measures are from the US Census and measured at the district level. According to the literature and work by Palmer & Simon (2008), these measures should be positively related to women running for office.

I also control for the percent of women in the legislature in the previous election to account for the electorate's willingness to accept women candidates and to control for the idea that many women who are in the legislature in the previous year might run in the current year. Palmer & Simon (2008) found that districts that were more diverse were also likely to elect more women, so district level measures of African American population and Latino/Hispanic population were included as covariates.

To account for political differences within the states, variables measuring historical competition, size of the legislature, and political ideology were included. Given that some states are going to always be Republican and some will always be Democrat, these historical trends need to be accounted for in the analysis. I chose to use Holbrook & Van Dunk's (1993) measure of historic competition. The higher values of this measure mean a greater level of competition. To measure the political ideology of a state, I use the Berry et. al. (1998) measure of "citizen" ideology. The index of citizen ideology measures the ideology of an "active" electorate by using interest group ratings of members of Congress. Higher values indicate a more liberal electorate. To account for the large variance in the population of states, the natural log of the state was included as a standard control variable.

3.2. Findings

To test the above hypotheses, a multivariate logistic regression was used. The dependent variable is a binary measure indicating whether or not a woman candidate was present in a specific primary election. Studying candidate data in this way introduces some concerns. The candidate data presented in this study are nested by state, district, and partisan primary. When multilevel data like this are used in statistical modeling, standard errors of coefficients tend to be smaller and overstate their statistical significance leading to type I errors (Primo, Jacobsmeier & Milyo, 2007). To correct for this, the model was run with "clustered" standard errors by primary election. A second issue with this project is that the data are also clustered by time. To account for year to year effects, fixed year effects variables were included (Beck & Katz, 1995).

Four statistical models were run and are presented below in Table 2. The first model includes all of the partisan races from 2001-2010.

The second model only includes open seat races where an incumbent was not present. The literature is clear that filing fees and signature requirements are more of a deterrent for challengers, so it is important to account for this possibility for women in state elections. A second concern deals with the political parties. Sanbonmatsu (2002) suggests that Democrats and Republicans emerge from different candidate pools, because the parties serve constituents from different cultures and economic backgrounds and Democrats are likely to see public service as a career option. To account for these insights, Models 3 and 4 disaggregate the races by political party to further test the hypotheses.

The crux of the analysis is an interaction term between signature requirements and filing fees. Some states require both signatures and filing fees to gain access to the ballot and some states only require fees or signatures. In Table 2, the variable measuring the impact of filing fees gives the effect of the policy when signature requirements are zero. The variable measuring the impact of signatures gives the effect of the policy when the fees are zero. The interaction term measures the impact when both policies increase at the same time. A positive or negative coefficient indicates the direction of the effect and whether or not it increases or decreases the likelihood of observing a woman candidate in the primary.

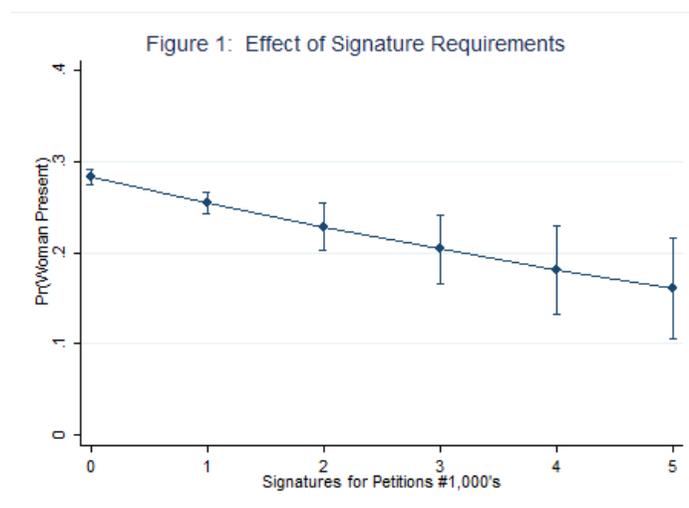
The first hypothesis had limited support across the three models. In the first two models, the variable measuring the effect of filing fees was not statistically significant, though the overall effect was negative. In the third model, which highlights only Democratic primaries, filing fees were statistically significant and in the negative direction. The coefficients for a logistic regression are not directly interpretable, so predicted values/probabilities should be generated to help determine the substantive effects of the variables. To accomplish this for all of the variables of interest in the model, the variable of interest is allowed to vary by a given amount and the rest of the covariates are held at their central tendency. In the case of filing fees, this means that as filing fees increase by \$1,000, the probability of a woman running in the Democratic primary decreases by 2.0 percent. If the variable is allowed to vary by its full range from \$200 to \$4,500, there is a 10 percent decrease in the probability of a woman running in the primary. Filing fees were not significant in the last model, which highlights only Republican primaries.

Table 2: Impact of Filing Fees on Likelihood of Woman Candidate Running (Logistic Regression)				
VARIABLES:	<i>Full Model</i>	<i>Open Seat</i>	<i>Democrat</i>	<i>Republican</i>
Filing Fee Requirements \$1,000's	-0.0348 (0.028)	-0.0312 (0.032)	-0.0989** (0.037)	0.0481 (0.042)
Signatures for Petitions #1,000's	-0.1446** (0.046)	-0.2534** (0.054)	-0.2419** (0.068)	-0.0312 (0.062)
Filing Fees X Signatures	0.1834** (0.057)	0.2366** (0.068)	0.3523** (0.085)	0.0008 (0.078)
Legislative Salary (\$1,000's)	0.0044** (0.001)	0.0042** (0.001)	0.0061** (0.001)	0.0029** (0.001)
Lower Chamber Race (1,0)	0.0572 (0.038)	0.0655 (0.045)	-0.0174 (0.054)	0.1374** (0.053)
Democratic Party Primary (1,0)	0.5797** (0.028)	0.6526** (0.033)		
District Urban Population (%)	0.0039** (0.001)	0.0026** (0.001)	0.0054** (0.001)	0.0025** (0.001)
Women With Bachelor's Degree or Higher (%)	0.0165** (0.002)	0.0110** (0.003)	0.0228** (0.004)	0.0098** (0.003)
Women in Legislature (%)	0.0521** (0.002)	0.0400** (0.003)	0.0617** (0.004)	0.0414** (0.004)
African Americans in District (%)	0.0084** (0.001)	0.0086** (0.001)	0.0129** (0.001)	0.0008 (0.002)
Hispanic/Latino in District (%)	0.0015 (0.001)	0.0044** (0.002)	0.0019 (0.002)	0.0011 (0.002)
Holbrook and Van Dunk Competition Index (%)	-0.0032* (0.002)	-0.0041* (0.002)	-0.0042+ (0.002)	-0.0014 (0.002)
Citizen Ideology (0 - 100)	-0.0104** (0.001)	-0.0087** (0.001)	-0.0114** (0.002)	-0.0096** (0.002)
District Population (LN)	-0.0786** (0.019)	-0.0526* (0.023)	-0.1239** (0.028)	-0.0366 (0.027)
Seats in Legislature (#Total)	-0.0014** (0.000)	-0.0008* (0.000)	-0.0026** (0.000)	-0.0003 (0.000)
2001 Election†	0.8361** (0.132)	0.6835** (0.171)	1.1510** (0.188)	0.5638** (0.189)
2003 Election†	0.5187** (0.107)	0.4259** (0.134)	0.5362** (0.153)	0.5051** (0.149)
2009 Election†	0.5328** (0.155)	0.2314 (0.211)	0.7099** (0.222)	0.4137+ (0.214)
Constant	-1.7943** (0.243)	-1.5708** (0.287)	-0.9843** (0.351)	-1.9708** (0.339)
Panels/Groups (Districts)	23,316	16,402	10,110	13,206
Observations	37,306	21,033	16,925	20,381
Wald Chi ²	1,143.64**	675.36**	619.59**	227.69**
Correctly Classified (%)	72.6	71.3	66.7	77.4

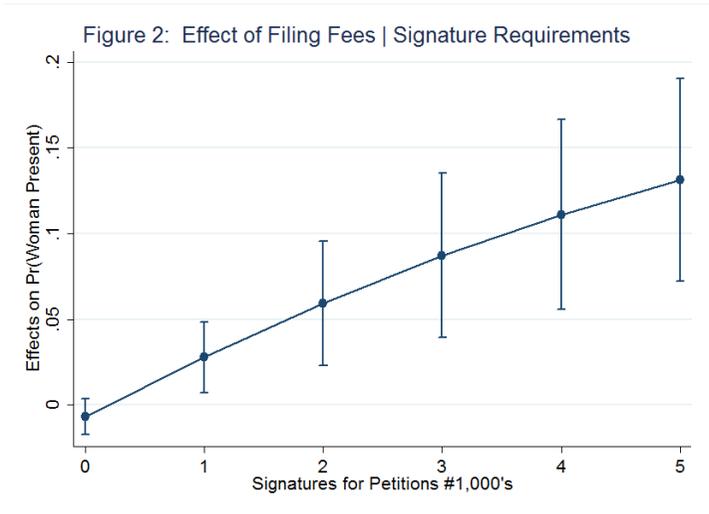
Robust standard errors in parentheses ** p<0.01, * p<0.05, + p<0.1. †All fixed year effects were included as covariates, but only the significant variables are presented.

The second hypothesis was not supported by the data and the models showed surprising results. The literature had suggested that signature requirements were seen as an alternative to filing fees and would be preferable institutional arrangements for women running for political office. This does not seem to be the case. The variable measuring signature requirements was statistically significant and in the negative direction for the first, second, and third model. In the fourth model it was not statistically significant. In the full model, if the amount of signatures/petitions required increased by 1,000 and all other factors were held at their central tendency, women were 4 percent less likely to run in that state's primary election. The maximum effect, where signatures were allowed to vary from 5 to 5,000, reduced the probability of women running in that state's primary by almost 15 percent if other factors were held constant. Higher signature requirements had the greatest negative impact for challengers, as shown in Model 2. The maximum impact of the variable in this model was that women were 20 percent less likely to be present in the primary in situations where states had a large signature requirements.

To provide more clarification as to the impact of this variable, I have graphed predicted probabilities by allowing the signature requirements to vary across its full range, while keeping other covariates at their central tendency. Figure 1 shows the results from the full dataset in Model 1. At a signature requirement of zero, the probability of observing a woman candidate is around 30 percent if other factors are held constant. Each additional 1,000 signatures decreases the likelihood even further.



The third hypothesis suggesting that in states with both filing fees and signature requirements, women candidates would be less likely to run for political office was not supported. The data showed the opposite effect. In the first, second, and third models, women candidates were more likely to be present in the primaries of states with both primary elections and filing fees. In the fourth model the interaction was not statistically significant. Because interaction terms are harder to interpret in a multiple regression model, I have produced a graph of predicted values derived from the values in Model 1. Figure 2, below shows the marginal impact of filing fees with respect to each level of signatures on the probability of a woman candidate being present in the primary. All other covariates were held at their central tendency. At the maximum amount, women candidates almost have a 15 percent higher probability of being present in primaries where filing fees and signatures are present. This finding is due to the fact that some states like Idaho only have a requirement of 50 signatures and \$30.00 for a filing fee. Many of the requirements are not onerous for states that required both signatures and fees.



In terms of the control variables, the relationships were as expected. Salary, as a benefit to office, was statistically significant and positively related to the presence of women candidates in the first three models. In the fourth model, salary was not statistically significant for Republican candidates. The type of office was not statistically significant for the first three models, but was statistically significant for the fourth. Republican women were more likely to be present in the primary races for the upper chamber than the lower chamber.

These findings indicate that the professionalism of the legislature was significant predictor for the entry of most women into the primaries, though the office prestige was only important for the Republicans.

In terms of the variables measuring the impact of an eligibility pool in a district, all of the variables were statistically significant and positive across all models. District urbanization, women with a college degree in a legislative district, and the percentage of women in the legislature were all positively related to the presence of women candidates in the primary. In terms of the diversity variables highlighted by Palmer & Simon (2008), the variable measuring the percentage of African Americans in a district were statistically significant for the first three models, but not in the fourth. This was expected, as higher percentages of African Americans are not likely to matter in Republican primaries. The variables measuring the percentage of Latinos/Hispanics in a district was only significant in the second model measuring the open seat primaries.

The variables measuring the political environment of the state produced results that were mostly expected. The index of competition was statistically significant and negatively related to the presence of women candidates in the first three models but was not statistically significant in the fourth. So, in the full model, open seat model, Democrat model, women were less likely to be present in states that were more competitive. Across all four models, citizen ideology was negatively related and statistically significant. This means that women were less likely to be present in states with a historically liberal electorate, which is probably due to increased competition with Democratic males. Women were also less likely to be present in states with larger populations or more seats in the electorate. The only year variables that were statistically significant were 2001, 2003, and 2009 and this is due to only a few states running elections in those time periods.

4.1. Conclusion

The data presented in this paper show that ballot access rules do matter, but not as expected. Both filing fees and signature requirements reduced the likelihood of women candidates being present in the primary. Filing fees only mattered in the Democratic primary model. Though the coefficients were negative across all of the models, the variable was not statistically significant. For most situations, women were just as likely to appear in states with higher filing fees as states with lower fees.

The interesting finding was that the signature requirements seemed to have a more chilling effect for women candidates, which is contrary to expectations from the literature. Because women often have a more difficult time deciding to start their campaign than men do, they may not have the organizational capacity to pull together enough signatures early on to run for office. State elections tend to be harder for “self” starting candidates, because there is little interest in candidates until they win the primary (Burrell, 1992; Kazee & Thornberry, 1990).

Though the filing fees can get expensive to run for state legislative office, many candidates can probably foot the bill themselves. This expectation is somewhat different compared to the findings from Congressional elections, where fees are seen to be the greater problem and hurt new candidates. For example, the fees paid to run for congressional office can be quite high. To run for US House of Representatives in Florida, a potential candidate has to pay \$10,440, but to run for State Representative, a potential candidate has to pay \$1,781 (Florida Division of Elections, 2013). This type of difference in offices is very similar across all of the states that use fees.

Ballot access rules work as intended in the states. They are expected to ward off “frivolous” candidacies and to protect the power of incumbents. This study has shown that they also negatively impact the likelihood that women candidates will enter the race. Given that women candidates already face some challenges with 1.) deciding to run for office and 2.) developing a campaign organization early in the race, these additional barriers are problematic. This findings are robust across four different tests. Women running in the Democratic Party are more likely to be impacted from filing fees and signatures than women running in the Republican Party. Many states have reduced the requirements to run for state legislative office over the last few years, but several states have increased the requirements, especially for independents and third parties. The signature or petition requirements by many states are probably greater than they need to be.

To counter some of the critiques relating to ballot access, some states are allowing candidates to have options. In Texas, for example, candidates may chose the signatures or to pay a filing fee. In other states, the requirements have dropped down the almost nothing. For example, candidates in New Hampshire can pay as little as \$10.00 to run for the state senate.

One interesting phenomena is that in several states, the parties get to pick the ballot access requirements for their members. Five states allow for this. The Arkansas Republican Party has been in the news recently for almost doubling their filing fee requirements (Lauer, 2014). States with partisan control over ballot access have some of the highest requirements to gain entry into the primary or convention in the country. Women candidates are also less likely to be present in primaries held in states with partisan ballot access control. In the data presented in this study, women were present in 28 percent of the races where the state controlled access to the ballot, but women only were present in 23 percent of the races where the parties controlled access to the ballot. A χ^2 test was run on this data and produced a test statistic of 37.63, which is statistically significant at the 0.01 level.

The take away from this study is that policies that make access to the ballot more difficult need to be examined carefully. There are some unintended consequences. Though these laws do not treat women differently than men, it seems that they do have differing impacts on women candidates. As women are usually less likely to seek office in the first place (See Jenkins, 2007; Carroll & Sanbonmatsu 2013), are somewhat risk adverse, and are less likely to engage in campaign activity on their own behalf, these barriers may be keeping out qualified candidates. Having flexible options on how to qualify for the ballot for candidates is an important first step in remedying this concern. A second step is for the state to set clear guidelines for all candidates. While it is important for parties to control which candidates are allowed on the ballot, their choices may negatively impact women or other political minorities. States that set guidelines for ballot access do a far better job getting women to run than states where the parties control the access.

5.1. Works Cited

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6.1. Appendix: Filing Fees and Signature Requirements for State Legislative Primaries

State	House Signatures	Senate Signatures	House Filing Fees	Senate Filing Fees	Party Control
Alabama	0	0	1100	1100	Yes
Alaska	0	0	100	100	No
Arizona	1100	1100	0	0	No
Arkansas	0	0	3500	4500	Yes
California	1500	3000	952	952	No
Colorado	1000	1000	0	0	No
Connecticut	500	2000	0	0	Yes
Delaware	0	0	0	0	Yes
Florida	0	0	1782	1782	No
Georgia	0	0	400	400	No
Hawaii	15	15	250	250	No
Idaho	50	50	30	30	No
Illinois	1000	1500	0	0	No
Indiana	1000	1000	0	0	No
Iowa	50	100	0	0	No
Kansas	105	130	100	130	No
Kentucky	0	0	200	200	No
Louisiana	400	500	450	600	No
Maine	40	150	0	0	No
Maryland	0	0	50	50	No
Massachusetts	150	300	0	0	No
Michigan	600	600	100	100	No
Minnesota	0	0	100	100	No
Mississippi	0	0	200	300	Yes
Missouri	0	0	200	100	No
Montana	0	0	15	15	No
Nebraska	0	0	120	120	No
Nevada	0	0	100	100	No
New Hampshire	5	20	2	10	No
New Jersey	200	1000	0	0	No
New Mexico	750	750	50	50	No
New York	500	1000	0	0	No
North Carolina	0	0	207	207	No
North Dakota	300	300	0	0	No
Ohio	50	50	85	85	No
Oklahoma	0	0	200	200	No
Oregon	500	500	25	25	No
Pennsylvania	300	500	100	100	No
Rhode Island	50	100	0	0	No
South Carolina	0	0	209	416	No

State	House Signatures	Senate Signatures	House Filing Fees	Senate Filing Fees	Party Control
South Dakota	0	50	0	0	No
Tennessee	25	25	0	0	No
Texas	5000	5000	750	750	No
Utah	0	0	69.5	79.8	No
Vermont	50	100	0	0	No
Virginia	125	250	0	0	No
Washington	421.06	421.06	421.06	421.06	No
West Virginia	0	0	100	200	No
Wisconsin	400	800	0	0	No
Wyoming	0	0	0	0	No

6.2. Appendix: Sources for Information on Filing Fees and Signature Requirements

State	Source
Alabama	http://www.sos.alabama.gov/elections/CandidateRes.aspx
Alaska	http://www.elections.alaska.gov/ci_pg_fof.php
Arizona	http://www.azsos.gov/election/CandidateFilingInformation.htm
Arkansas	http://www.sos.arkansas.gov/elections/Pages/default.aspx
California	http://www.sos.ca.gov/elections/statewide-elections/2014-primary/qualifications.htm
Colorado	http://www.sos.state.co.us/pubs/elections/Candidates/CandidateHome.html
Connecticut	http://www.ct.gov/sots/cwp/view.asp?a=3179&q=533008
Delaware	http://elections.delaware.gov/services/candidate/candidate.shtml
Florida	http://election.dos.state.fl.us/candidate/Qualifying-info.shtml
Georgia	http://sos.ga.gov/index.php/elections/qualifying_information
Hawaii	http://hawaii.gov/elections/candidates/
Idaho	http://www.sos.idaho.gov/elect/candidat/2014cand.htm
Illinois	http://www.elections.il.gov/runningforoffice.aspx
Indiana	http://www.in.gov/sos/elections/2395.htm
Iowa	https://sos.iowa.gov/elections/candidates/faq.html
Kansas	http://www.sos.ks.gov/elections/14elec/2014FilingInfo.pdf
Kentucky	http://app.sos.ky.gov/ElectionsDYC/
Louisiana	http://www.sos.la.gov/ElectionsAndVoting/BecomeACandidate/QualifyForAnElection/Pages/default.aspx
Maine	http://www.maine.gov/sos/cec/elec/2014/guide14.pdf
Maryland	http://www.elections.state.md.us/candidacy/
Massachusetts	http://www.sec.state.ma.us/ele/eleidx.htm
Michigan	http://www.michigan.gov/sos/0,4670,7-127-1633_8721---,00.html
Minnesota	http://www.sos.state.mn.us/index.aspx?page=635
Mississippi	http://www.sos.ms.gov/elections_candidates_lobbyists_center.aspx
Missouri	http://www.sos.mo.gov/candidatesonweb/

6.3. Appendix: Sources for Information on Filing Fees and Signature Requirements

State	Source
Montana	http://sos.mt.gov/ELECTIONS/Filing/index.asp
Nebraska	http://www.sos.ne.gov/elec/candidateinfo.html
Nevada	https://nvsos.gov/Modules/ShowDocument.aspx?documentid=2029
New Hampshire	http://sos.nh.gov/Running_For_Office.aspx
New Jersey	http://www.state.nj.us/state/elections/election-information-archive-2014.html
New Mexico	http://www.sos.state.nm.us/Candidate_And_Pac_Information/default.aspx
New York	http://www.elections.ny.gov/RunningOffice.html
North Carolina	http://www.ncsbe.gov/ncsbe/candidate-filing
North Dakota	https://vip.sos.nd.gov/PortalListDetails.aspx?ptlhPKID=13&ptIPKID=3
Ohio	http://www.sos.state.oh.us/SOS/Upload/publications/election/2014/2014_CRG.pdf
Oklahoma	http://www.ok.gov/elections/Candidate_Info/index.html
Oregon	http://sos.oregon.gov/elections/Pages/runforoffice.aspx
Pennsylvania	http://www.portal.state.pa.us/portal/server.pt/community/running_for_office/12704
Rhode Island	http://sos.ri.gov/elections/candidate/
South Carolina	http://www.scvotes.org/candidate_information
South Dakota	https://sdsos.gov/elections-voting/nominating-petitions/qualifications-office-term-limits.aspx
Tennessee	http://www.tn.gov/sos/election/qualify/qu-overview.pdf
Texas	http://www.sos.state.tx.us/elections/candidates/guide/qualifications.shtml
Utah	http://elections.utah.gov/election-resources/2014-candidate-filings
Vermont	https://www.sec.state.vt.us/elections/candidates.aspx
Virginia	http://sbe.virginia.gov/index.php/candidatepac-info/
Washington	http://www.sos.wa.gov/_assets/elections/How-to-become-a-candidate-2014.pdf
West Virginia	http://www.sos.wv.gov/elections/administrators/Documents/Guides/RFO%20BOOK%202014.pdf
Wisconsin	http://gab.wi.gov/elections-voting/candidates
Wyoming	http://soswy.state.wy.us/elections/Default.aspx

Appendix. 6.4: Summary Statistics

Variable	Central Tendency	Std. Dev.	Min	Max
Woman Present (1,0)	0.000	NA	0.000	1.000
Filing Fees (\$1,000's)	0.251	0.583	0.000	4.500
Signature/Petitions (#1,000's)	0.408	0.944	0.000	5.000
Legislative Salary (\$1,000's)	27.838	24.108	0.200	95.000
Lower Legislative Chamber (1,0)	0.759	0.428	0.000	1.000
Democratic Primary (1,0)	0.458	0.498	0.000	1.000
Urban Population (%)	71.382	31.266	0.000	100.000
Women with Bachelors or Higher (%)	28.600	6.351	7.557	58.223
Women's Legislative Representation (%)	23.482	6.862	7.900	38.800
District African American Population (%)	9.594	15.872	0.000	98.224
District Latino/Hispanic Population (%)	7.701	12.830	0.000	95.479
Hollbrook and Van Dunk Competition Index	38.855	11.584	9.260	56.580
Citizen Ideology	48.789	15.304	8.447	95.847
Total Population (Ln)	10.863	1.009	7.988	13.651
Total Seats In Legislature	157.781	58.697	49.000	424.000

ⁱ Ballot access data were taken from various websites of the State Secretaries of State. Most states have "Candidate Qualifying Handbooks" that are available to understand the rules. The full listing of fees and signature requirements are listed in Appendix 1.

ⁱⁱ Candidate and donor summaries from the Institute for Money in State Politics can be downloaded from their API database, which is available at <http://www.followthemoney.org/services/index.phtml> or the Sunlight Foundation's "Influence Explorer", which is available at <http://data.influenceexplorer.com/>.

ⁱⁱⁱ The list of female first names is available from the US Census at http://www.census.gov/genalogy/www/data/1990surnames/names_files.html.

^{iv} Summary statistics for each variable of interest are present in the appendix.