PRIMARY CHALLENGERS: EXAMINING COMPETITION IN U.S. HOUSE
PRIMARY ELECTIONS WITH FEMALE CANDIDATES

by

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A thesis
submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in Political Science
Boise State University

December 2018
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Thesis Title:  Primary Challengers: Examining Competition in U.S. House Primary Elections with Female Candidates

Date of Final Oral Examination:  10 July 2018

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DEDICATION

To my beloved family and friends who have been a constant source of encouragement throughout this journey. Thank you for the unconditional love and support you all have shown me. I would not be where I am today without each of you.
ACKNOWLEDGEMENTS

To my advisory committee: Dr. Jaclyn J. Kettler, Dr. Jeffrey Lyons, and Dr. Stephen Utych, thank you for believing in me throughout my college career. The support you all have shown me has allowed for me to persevere through these years. You have challenged my beliefs and helped me reach far beyond the initial drafts of my thesis; I appreciate all you have done.
ABSTRACT

Previous research has established that voters and political elites hold gendered stereotypes toward female candidates. Additionally, traditional family roles and gendered expectations are found to affect the self-confidence of women and their political ambition. However, little is known about how potential challengers perceive women as candidates. To fill this gap, I examine whether the presence of a woman in a primary election influences the entry of prospective candidates. Are women perceived to be more vulnerable candidates, thus attracting more competition in primary elections?

To answer this, I estimate a negative binomial regression with primary election data for the U.S. House of Representatives from 2002-2012. The results confirm previous findings that women face more primary competition, especially Republican women. However, Democratic incumbents and women who fundraise large amounts of money deter challengers from entering the primary election, suggesting they are viewed as stronger candidates, thus dissuading potential candidates from entering the race. To further examine these results I estimate the propensity score of congressional districts and match a random sample of my population to compare candidate-filing dates. The results suggest women strategically enter a race when there are fewer candidates. Furthermore, I find evidence that challengers are more likely to enter a primary election after a woman declares candidacy.
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<td>DIME</td>
<td>Database on Ideology, Money in Politics, and Elections</td>
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<td>FEC</td>
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INTRODUCTION

Since 1789, women have held approximately 2.6 percent of congressional seats. Out of the 329 Congresswomen, 34 percent are current serving members of Congress (Center for American Women and Politics 2017), these figures suggest a slow and recent progression of women into American politics (Palmer and Simon 2012). With women comprising over half the United States population, it is vital that we learn more about gender and the perception of candidates to understand electoral situations women face during campaigns. Becoming cognizant of the barriers women experience during campaigns can help overcome stereotypes that hinder the advancement of women in politics. Therefore, female candidates can understand the road they may face throughout an election and can position themselves in a way to contest these stereotypes and improve their advancement in the political pipeline.

Studies have consistently found gender-neutral election outcomes when women run for office (Burrell 1994, Carroll 1994; Pearson and McGhee 2013). To understand this phenomenon, scholars have often relied on theories of the incumbency advantage (Prior 2006; Palmer and Simon 2001) and the political pipeline theory (Conway, Steuernagel, and Ahern 1997; Thomas and Wilcox 1998). However, recent studies have shifted focus from political institutions that foster structural barriers to more specific studies of the individual candidates. To understand a woman’s path to candidacy as an individual, factors such as political ambition and socialization have been explored. Theories of socialization suggest traditional family structures impact the way young girls
are socialized, often hindering their aspirations to run for political office as grown women (Fox and Lawless 2014). Additionally, research finds gender stereotypes affect the way women candidates are viewed by voters and political elites (Sanbonmatsu and Dolan 2009). These stereotypes are found to affect a woman’s self-perception of her eligibility and experience to run for office (Fox and Lawless 2003; Huddy and Terkildsen 1993).

Despite the abundance of research on congressional elections, there is much we do not know regarding gender and politics (Cox and Katz 1996; Milyo and Schosberg 2000; Palmer and Simon 2012). The overwhelming focus on general elections has inhibited scholars from gaining a deeper understanding of a candidate’s initial decision to run for office. Thus far, only a handful of studies have focused on primary elections, yet these studies have uncovered gender differences in the electoral arena. Bucchaineri (2017) finds a gap in support by political elites for men and women candidates. Additionally, primary elections in which a woman candidate is running are found to have more candidates (Lawless and Pearson 2008; Milyo and Schosberg 2000). By continuing to study primary elections, scholars will potentially uncover individual patterns and phenomenon that every candidate must endure. With recent advancement in primary election data, we can understand difficulties that arise in the low information election and how characteristics of the race affect candidate emergence. If female candidates are perceived to be weak, studies of primary elections will be best to capture the initial perception of all challengers with the political ambition to declare candidacy. This will advance studies of gender and politics by including a large population of candidates who hold political ambition to run for office but did not advance to the general election.
To build on recent findings, I conduct two studies and investigate how prospective challengers evaluate women candidates in congressional primary races. Are women faced with more primary competition due to an inherent perception that they are more vulnerable candidates? Through the use of Bonica’s (2016) Database on Ideology, Money in Politics and Elections (DIME) dataset, I examine U.S. House of Representatives primary elections from 2002-2012. In Study 1, I estimate a negative binomial regression and, confirming previous literature, find that gender is a significant predictor of the number of challengers in primary elections. It appears that Republican women attract the highest number of challengers, while Democratic incumbent women deter challengers. Additionally, the effect of gender is not present for female candidates who raise a large amount; therefore, they are statistically not likely to have more challengers in the primary election than male candidates. In Study 2, I examine candidate emergence using a propensity score matching technique by looking at filing dates for elections with and without women. The results suggest women are strategic when declaring candidacy by entering in races with fewer challengers. Finally, I find evidence that gender affects candidate emergence due to the narrow differences of means between challengers in races with and without a woman after a woman declares candidacy.

The basic structure of this paper begins with an overview of the current state of gender and politics literature, outlining prominent theories in the field. Furthermore, I discuss how voters and political elites perceive women. I then provide an overview of my data and methodology. Finally, I review and analyze results from both studies and conclude with a discussion of the results, limitations to my studies, and make recommendations for future work.
GENDER AND POLITICS

Running for public office is a courageous task involving an extensive amount of time, money, and vulnerability (Fox and Lawless 2005). Prospective candidates must weigh the intrinsic costs and benefits associated with running and holding office such as publicity, status of holding higher office, the financial costs of campaigning, and one’s own ambition (Maestas et al. 2006). Although women have begun to advance into the professional realm, and thus become more viable candidates, survey data conducted by Fox and Lawless (2004) find women are still less likely to express political aspiration and interest in holding high-level office than men. Once in the electoral arena, research has found voters and political elites hold gendered-stereotypes that may affect the electoral performance of women (Huddy and Terkildsen 1993; Preece and Stoddard 2015). In this paper, I propose these stereotypes lead to more challengers entering a race with a woman, contributing to their underrepresentation.

Political scientists have long examined two major theories to explain the lack of women in Congress focusing on structural and institutional barriers that inhibit the advancement of women into higher office. Most notably is the incumbency advantage, which primarily benefits the large number of men holding political office. This theory suggests incumbents have much higher success rates by entering the election with name recognition, having a voting record, larger donor pool, and press coverage (Butler and Preece 2016; Palmer and Simon 2012). However, recent studies find women candidates also benefit from the incumbency advantage. Through examination of U.S. House
elections from 1956-2012, Palmer and Simon (2012) find women incumbents win by larger margins than men; this holds true even with women being opposed by more challengers in the primary election. Although studies find gender-neutral victory rates, there are still fewer Congresswomen in office.

The second leading theory, the political pipeline theory, suggests as more women enter the eligibility pool and run for lower level offices such as state and local positions, they eventually “spill over” into Congress (Palmer and Simon 2012). Education level, careers in the business and law realm, and holding professional positions are found to be contributing factors for individuals to advance into the eligibility pool (Fox and Lawless 2003). Although data suggests more women have entered into the pipeline, there has not been a major increase in candidates, suggesting there are more factors related to the lack of female candidates.

Even though much has been learned from these theories, the underrepresentation of women is still not fully understood. The human element such as individual characteristics has largely gone unnoticed until recently, as scholars have begun to focus on stereotypes and socialization as potential factors at play in the electoral arena. The effect of these factors on the perception of women are established through research on voters and political elites, yet I argue these stereotypes also play a role in candidate emergence in which women are perceived to be more vulnerable candidates, therefore attracting more challengers in the primary election. The following section will introduce the gendered-stereotype theory that appears to affect the electability and advancement of women in politics.
Socialization

As previous research has established, women must overcome institutional and structural hurdles to advance their political careers to higher office. However, scholars have recently started to examine the experience of candidates on an individual level, even before their political career. In doing so they find women are not socialized for politics the same way in which men are (Lawless and Pearson 2008).

Studies find traditional family structures and socialized gender roles that boys and girls are taught in childhood are also experienced in adulthood, which hinder women’s aspirations to hold office. For example, in America, traditional family structures encourage gendered roles such as women being the primary caretaker of the family. Conway, Steuernagel, and Aheren (1997) argue this expectation often leads to female candidates and officials feeling obligated to consider their families, resulting in their decision not to run.

Fox and Lawless (2014) test theories of socialization by conducting a survey of high school and college students to explore political ambition. Using early life experiences and socializing agents as a gauge of political ambition, they uncover a stark gap between young male and female students, showing young women are less likely to have political ambition. Specifically, the girls studied were less likely to report having experiences in a political environment, participation in competitive activities, and self-confidence, while being more likely to be taught traditional gender roles. Given that women and men hold different experiences while being socialized into adult members of society, these findings uncover a pattern of early socialization that is linked to political
ambition even before reaching adulthood. It is not far-fetched to expect that these gender stereotypes and expectations affect perceptions of candidates.

**Perception of Voters**

According to social role theory, gender stereotypes are derived from socialization and observation of people in traditional gender social roles. Therefore, the gendered socialization carries over into adulthood in which beliefs about gender are tied with attributes and characteristics of men and women (Eagly and Karau 2002). Political scientists find gender stereotypes held by the public do not dissipate when they reach the ballot box. Using survey data, Dolan and Sanbonmatsu (2009) find evidence that people hold policy and trait stereotypes about women and men. These stereotypes are then used to evaluate the appropriate role for women in office, which in return, can affect their judgment of a woman’s eligibility for office. The majority of respondents, 60 percent, reported preference for men in the government, while 40 percent indicated preference for women. Additionally, 39 percent of respondents reported desire for a majority-male government, while only 9 percent preferred a majority-female government.1 This suggests voters prefer stereotypical traits of men to represent them in office. Thus, gender stereotypes do affect the public’s perception of women as candidates, which is a view that is then carried over to the ballot box.

To understand the lack of women in politics despite experiencing similar victory rates as men, scholars examine heuristics driving voter’s behavior. In low information

1 Dolan warns readers that the survey is unable to account for whether respondents are expressing a desire to appear egalitarian through their responses or not.
races, voters typically follow partisan cues when casting their ballot (McDermot 1997). However, several studies find voters hold gendered-stereotypes when evaluating men and women candidates (Huddy and Terkildsen 1993; Sanbonmatsu and Dolan 2009). Through an experimental study, Ditonto, Hamilton, and Redlawsk (2014) discover that subjects seeking information online about made-up presidential candidates change their web search patterns depending on the candidate’s gender. Subjects sought competence-related information and information related to “compassion issues” while researching women candidates but not for men. Furthermore, the study finds the presence of a woman in a race alone sparked more searches related to compassion. This suggests voters expect women candidates to embody these stereotypical issues.

Additionally, scholars find evidence for gender-trait stereotyping in which traits such as warmth, sensitivity, and compassion are reported by respondents to be key qualifications for women candidates (Huddy and Terkildsen 1993; Alexander and Anderson 1993). Therefore, women are believed to be experts on education as well as health and welfare issues. On the other hand, men are labeled as competent, rational, and instrumental, thus better suited for economic and foreign policy (Huddy and Terkildsen 1993; Crespin and Deitz 2010). Sanbonmatsu and Dolan (2009) find that the effects of gender-trait stereotyping are stronger than partisan ties. Through an analysis of survey data, the authors conclude gender stereotypes do in fact transcend party. Women of both major parties are viewed to be more liberal, which can especially harm the electability of Republican women (Koch 2000; Kitchens and Sewers 2016; Huddy and Terkildsen 1993). The authors conclude that men and women candidates running for political office are “viewed through multiple lenses” on a range of stereotypes.
As previously mentioned, a majority of Americans view the leadership of men as more favorable than the leadership styles of women. Women candidates are intertwined with preconceived ideas about their values and the policy areas they will be competent to handle, often with a liberal note. Although these findings do not speak for all Americans, there is a sizeable amount who hold and spread these beliefs. For candidates in primary elections, such beliefs can be either beneficial or detrimental to their electoral success because voters must rely on cues other than a candidate’s party affiliation.

**Perception of Political Elites**

As with voters and the public, political elites also perceive men and women candidates differently (Crowder-Meyer 2013; Fox and Lawless 2004; Preece and Stoddard 2015; Sanbonmatsu 2006; Thomsen 2015). The perceptions of elites are important for the electoral process because political elites often act as gatekeepers, allowing or barring candidates into the political arena. Furthermore, support from political leaders is crucial for fundraising, to serve as a cue for voters, donors, and fellow elites, as well as for candidates to gain traction during an election, especially in low-information primary elections (Kitchens and Swers 2016).

By surveying state legislators, Sanbonmatsu (2006) finds party elites report that men have an electoral advantage and value their political leadership more than a woman’s leadership style. Furthermore, Butler and Preece (2016) find women are less likely to be recruited by elites and party leaders. Together these results suggest gender stereotypes held by voters expand to how elites perceive women, resulting in less support and encouragement for women. Preece and Stoddard (2016) test how men and women respond to recruitment and find men’s level of self-reported political ambition increased
following elite recruitment, more than women’s. The authors stress a woman’s self-confidence in her own qualifications and abilities to hold office make it more difficult for elites to recruit women, furthering the gender gap in politics.

Moreover, women self-report their political ambitions as significantly lower than men, even after being recruited by an elite (Fox and Lawless 2003; Lawless and Pearson 2008). When women are encouraged to run for office, survey data finds they are more hesitant to accept mentorships because they believe the offerings are not full promises to help with campaign obstacles or sharing their past experiences (Butler and Preece 2016). The perception that women are weaker candidates is potentially strengthened with women still lacking self-confidence after being recruited by political elites as well as reporting less political ambition than men.

Additional studies find there is a clear partisan divide for support of women candidates. For example, Democratic Party leaders are more likely to support and encourage women to run for election than Republican Party leaders (Crowder-Meyer 2013; Thomsen 2015). Republican women report experiencing disadvantageous circumstances compared to their male counterparts due to lack of support by party leaders (Pearson and McGhee 2013). Furthermore, Pearson and McGhee (2013) find the Democratic Party and its network are more likely to fund women than the Republican Party, which is important to ensure the success of a candidate. These findings conclude that Republican women experience a different electoral world than Democratic women.

We are left to ask if the socialization of women and traditional stereotypes impacted how voters, elites, and in return potential candidates evaluate women entering
the political arena? If so, I expect candidates in the primary election to experience the brunt of this phenomenon, resulting in more competition.
THE PERCEPTION OF CHALLENGERS IN PRIMARY ELECTIONS

Previous research has established a clear connection between traditional family structures and socialized gender roles that children are taught and experience in adulthood, which hinders a woman’s aspiration to hold political office (Conway, Steuernagel, and Aheren 1997). Gender stereotypes find that women are sensitive and compassionate, and men are believed to be rational and instrumental (Alexander and Anderson 1993; Huddy and Terkildsen 1993). These beliefs are associated with ideological views in which women are viewed to be more liberal than men, ultimately harming the electability of Republican women (Koch 2000; Kitchens and Swers 2016). Research has established these beliefs to be held not only by voters, but political elites as well. Party leaders are found to be skeptic of the leadership capability of female candidates, which results in less support and encouragement of female candidates (Crowder-Meyer 2013; Sanbonmatsu 2006; Preece and Stoddard 2016).

Scholars find political gatekeepers are hesitant to encourage women to run for office citing gender stereotypes and expected leadership styles as reasons for lack of encouragement (Crowder-Meyer 2013; Sanbonmatsu 2006; Thomsen 2015). Therefore, forces working against women stemming from their childhood have hindered their self-confidence and views of their qualifications to run for office. With the advancement of available data, scholars started to shift focus to the beginning stage of the electoral process, primary elections. Lawless and Pearson (2008) find gender-neutral victory rates, women candidates face more primary competition in U.S. House of Representative
primary elections from 1958-2004. Given the time period of the study in which
traditional family structure is apparent yet declining in American culture (Popenoe 1993),
the finding further supports theories of socialization and gendered stereotypes. However,
we are left to ask if women are perceived to be more vulnerable candidates, thus
attracting more competition in primary elections?

This study fills the gap in literature by first examining if women are attracting
more challengers in congressional primary elections from 2002-2012. Due to gender
stereotypes and evidenced by less elite support, I argue potential challengers believe
women lack the characteristics and qualities required to hold political office.
Furthermore, challengers perceive female candidates lean liberal due to stereotypes of
women being more compassionate and suited for policies aligned with the Democratic
Party, which becomes a much bigger issue for Republican women. Additionally, women
may be viewed as more vulnerable candidates since they receive less support from elites.
If potential candidates do hold such perceptions, they will likely view women as weaker
candidates, which would make them an easier candidate to face in the primary election.
Therefore, potential candidates are more likely to enter a race with a woman candidate
due to the perception that they will be easier to beat in the election.

Boatright (2014) argues since the early 2000’s America’s political system has
experienced an era of “primarying,” where political activists use primary elections to
challenge incumbents in an effort to spark political and social change. This study furthers
existing research by focusing on the effect of gender in primary competition during a
time of increased “primarying.” Furthermore, it looks deeper into the data to discover
whether challengers are entering the race because a woman has declared candidacy, or
whether a woman is statistically more likely to be in a race with more challengers. Although this project cannot uncover the direct causality for the number of challengers within a race, it is an initial step to understand the trends of challengers to test whether there is an inherent perception that women are weaker candidates, thus causing more challengers to enter the primary election.

If current gender stereotypes and socialization practices cause women to be viewed as weaker candidates, I expect to see elections with a woman to have more challengers in the primary. Moreover, there should be a partisan divide, in which Republican women will experience more crowded fields than Republican men and Democrats. Due to the support Democratic women receive from the party and liberal leaning stereotypes of women, I expect challengers to view Democratic women as stronger candidates and decide not to enter the race. Lastly, I expect to see more challengers declare candidacy after a woman enters a primary election due to perceived notion that women will not hold a high vote share.

**Primary Elections**

Until recently, primary elections have been treated as “low-visibility” affairs. Boatright (2014) compares primary elections to a gangster movie genre in which “a prominent gang member is suspected of secretly consorting with a rival gang or with the police” and those within the gang look to oust him to make an example out of him and keep others in line, possibly strengthening their own position in the gang (3). From this viewpoint, activists are gang members seeking to oust incumbents and increase their presence in politics. Yet, without much media attention on primary elections, typically only the politically engaged participate. Therefore, those who vote in the primary election
are often more passionate and hold extreme ideological views (Hall 2015). With this, primary elections foster a unique political environment for activists whom declare candidacy in hopes of sparking social and political change (Boatright 2014) that is not present in the general election, especially if the candidates are perceived to be more vulnerable.

Primaries are a nationwide phenomenon, yet the laws vary from state to state. Although many laws are not daunting if the candidate has the qualifications, funds, and required signatures to enter the race, the laws are vastly different. For example, in Indiana there is no filing fee while candidates in Florida must pay one thousand dollars to enter the primary election. Similarly, the required number of signatures varies from zero to one thousand across states (Boatright 2014). Primary elections are also unique in which states decide who can vote by holding an open or closed primary, or combination of the two. Kanthak and Morton (2001) differentiate between the two. In open primaries, all registered voters may vote in the election regardless if they are registered as a member of the party or not. In closed elections, voters are limited to their affiliated party. However, California, Nebraska, and Washington have a “jungle primary” or “blanket primary” in which all candidates run in the same primary and the top two candidates advance to the general election (Boatright 2014). Knowing the differences in state laws is important because it may cause variation in the number of challengers who are able to enter the arena. This current study is unable to control for state differences, but I recommend future research to include metrics for differing primary laws.

Lastly, the organizational structure of congressional primaries fosters a candidate-centric process in which party organizers do not directly choose the nominee (Galderisi et
Candidates must rely on their own persona and narrative to attract endorsements, donors, and the public’s support (Kitchens and Swers 2016; Lawless and Pearson 2008). Therefore, if there is an inherent perception that women are weaker candidates by voters and potential candidates, we will see strong evidence of women being disadvantaged in primary elections. Additionally, the nature of primary elections is for multiple candidates to run for the same party. Without a partisan cue to cast their ballot, voters may look elsewhere such as the candidate’s gender (Sanbonmatsu and Dolan 2009).

Primary elections capture a candidate’s initial decision to run for political office. Previous literature that focused on general elections was limited to the “cream of the crop” effect, where only victorious candidates in the primary election advance to the general. In return, this excludes many candidates who had the intent to run for office, but did not win the election. If potential challengers enter a primary because they perceive a woman to be a weaker candidate, it is possible the challenger is weak themselves.

In a candidate-centric race, a woman’s qualifications and persona are likely key factors for a voter’s decision, as opposed to political party affiliation or elite endorsements. My research not only explores whether races with female candidates have more primary competition, but also begins to examine when candidates emerge. This allows me to establish whether challengers are more apt to enter a race after a woman enters or if candidates emerge at equal rates regardless of a woman’s declaration.
DATA AND METHODOLOGY

My analysis focuses on primary election candidates for the U.S. House of Representatives from 2002-2012. For data on congressional candidates, I used the Database on Ideology, Money in Politics, and Election (DIME) compiled by Adam Bonica (2016). This is the most appropriate dataset for the study because it includes data on all individuals who declared candidacy with the Federal Elections Commission (FEC) in their given election cycle, has election results for the primary and general election, includes candidate gender, campaign finance data, and congressional district characteristics. However, I came across numerous candidates labeled under the wrong election year within the dataset. Therefore, I cross-referenced the candidates in the DIME dataset to data from the FEC by merging the two datasets together. After deleting all of the unmatched observations, my population is comprised of 6,132 observations.

Challengers. My dependent variable is the number of challengers in a primary election. Therefore, I created a variable for the number of challengers in a district per cycle, aggregating the number of candidates in the Republican and Democratic primary elections. I did not separate the number of challengers by party in order to account for challengers who enter the other party’s primary election with the expectation that they will campaign against a woman in the general election (Lawless and Pearson 2008). The

2 A total of 2,337 observations were dropped from the dataset due to inconsistencies between the DIME and FEC datasets.
mean number of challengers is comparable for men and women with 4.82 and 4.75 respectively. On average, Republican candidates have slightly more challengers with a mean of 5.13 compared to Democrats with an average of 4.45 challengers. With the number of challengers as the dependent variable, I am able to estimate the effect the presence of a female candidate has on a potential candidate’s decision to enter the race while controlling for various factors that may contribute to the number of challengers in a race. With this, my research can potentially test whether a woman in the primary election attracts more challengers.

Female. My independent variable is the candidate’s gender to test how gender affects the number of challengers in primary elections. Data for candidate’s gender was collected from reports by the U.S. Census Bureau and use of gender-specific titles reported in the FEC contribution records, and is coded 1 for female and 0 for male candidates. Across the six election cycles in my dataset, 5,023 candidates are men and 1,109 are women. Additionally, 65 percent of the women in my dataset are Democratic while only approximately 35 percent of the women are Republicans. These figures provide initial evidence that there is a partisan divide for support of female candidates by political elites due to there being nearly twice as many Democratic women in the primary elections.

Democrat. This study only includes major-party candidates, coded 1 for Democrats and 0 for Republicans. To date, approximately two thirds of women elected into Congress are Democratic (Palmer and Simon 2012). Controlling for partisanship is important because this unambiguous difference in representation as well as the reported challenges Republican women face from voters and political elites (Kitchens and Swers
With the DIME dataset there are more Republican candidates compared to Democratic candidates with 3,058 and 2,841 respectively. Yet, there are over twice the number of Democratic female candidates (702) than Republican female candidates (376), providing some evidence for the theory that the Democratic Party is more favorable toward women than the Republican Party.

Contributions. As a proxy control for candidate quality, I include the natural log of total amount of money fundraised per candidate in an election cycle. The expectation being campaign contributors are “rational investors,” in which they are more likely to invest in expectedly successful campaigns (Jacobson 1978). In other words, raising more money reflects the strength of a candidate and potentially signals they are of higher quality and more experienced, which will deter prospective challengers from entering the race. However, a limit to this variable is the total contribution amount including money fundraised by candidates in the primary and general election. This skews the data in which candidates who won the primary election have a significantly higher contribution amount due to fundraising in both the primary and general election. This is concerning because it inflates their strength in the primary, but it provides some indication of their strength as a candidate.

Female X Contribution. In my model I include an interaction for candidate’s gender and the amount of money fundraised. Being that candidates who are more

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3 I use the natural log of total contribution amount to equalize the effect of wide variation that is associated with monetary amounts raised in an election.
successful at fundraising are associated with being stronger and more qualified, this variable is a proxy for the quality of a female candidate (Jacobson 1978).

**Number of Donors.** The numbers of individual donors are included to control whether the candidate is receiving many small donations or a handful of large donations. Stronger and well-liked candidates are more likely to be supported by donors, which will discourage weaker potential candidates from entering the race (Desmarias et al. 2015).

**Seat Status.** Controlling for the seat status of an election is vital because incumbents dominate the electoral arena by experiencing less competition and higher victory rates. On the other hand, open races attract numerous hopeful candidates due to the lack of an incumbency advantage (Carson et al. 2007). Seat status is controlled for by the inclusion of two dummy variables. *Incumbent,* which is coded 1 for incumbents and 0 otherwise. *Open* is coded 1 for candidates running for an open seat, 0 for candidates that are either an incumbent or challenger. The variable for challengers is left out of the data to be used as a reference category.

**Competitiveness.** I include a control for the electoral competition of the district due to the larger threat candidates experience in a solidly partisan congressional district (Lawless and Pearson 2008). The presidential vote share for the previous election is included to measure the level of competitiveness in each congressional district. For this variable, I collapsed the vote share and created a variable ranging from 0 – 0.5, in which the higher the number the more competitive the race is.

With this data, I conduct two studies- one an aggregate study of primary elections and a second that delves deeper into candidate emergence. I begin with a multivariate analysis using primary election data to test whether female candidates experience a more
crowded electoral arena than male candidates. Following Study 1, I delve deeper into candidate emergence by collecting filing dates to test whether prospective candidates enter the primary election before or after a woman declares candidacy (Study 2).
ANALYSIS AND DISCUSSION

Study 1: Number of Primary Challengers

Prior to analyzing the results, I will briefly overview the descriptive statistics of the dataset. As to be expected, Table 1 shows that on average incumbent candidates in U.S. House primary elections from 2002-2012 have two fewer challengers than non-incumbents. However, men incumbents on average have slightly more competition than women candidates. As for non-incumbents, women have slightly more challengers. These statistics suggest there are differences in the number of challengers between women and men candidates that are especially apparent depending on seat status.

Further supporting the incumbency advantage theory, on average incumbents have two fewer challengers in the primary election compared to non-incumbents which include challengers and open seats. Female incumbents have the least amount of challengers, which suggests they are viewed as stronger candidates, thus preventing weak challengers from entering the race. On the other hand, female non-incumbents must campaign against the highest number of challengers.
Table 1. Average Number of Challengers for Incumbents and Non-Incumbents in U.S. House Primary Elections from 2002-2012

<table>
<thead>
<tr>
<th></th>
<th>Mean Number of Challengers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men Incumbent</td>
<td>3.24</td>
</tr>
<tr>
<td>Women Incumbent</td>
<td>3.04</td>
</tr>
<tr>
<td>Men Non-Incumbent</td>
<td>5.24</td>
</tr>
<tr>
<td>Women Non-Incumbent</td>
<td>5.31</td>
</tr>
</tbody>
</table>

SOURCE: DIME Dataset (Bonica 2016)

To further look into the data, Table 2 displays the number of challengers by candidate gender and partisanship. From 2002-2012, Republicans had more challengers than Democrats, with Republican women having the highest number of challengers. This offers support for a partisan difference for women candidates. Within the Democratic Party, men and women experience a similar number of challengers. The difference between number of challengers for male and female candidates are also dependent on the seat status and partisanship, which offers support that potential challengers are selective in the races they enter. Since incumbent women in Table 1 and Democratic women in Table 2 have the least number of challengers, it appears that Democratic incumbent women are perceived to be strong candidates, discouraging potential challengers from entering the election.
Table 2. Average Number of Challengers Between Partisanship and Gender in U.S. House Primary Elections from 2002-2012

<table>
<thead>
<tr>
<th></th>
<th>Mean Number of Challengers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republican Men</td>
<td>5.10</td>
</tr>
<tr>
<td>Republican Women</td>
<td>5.33</td>
</tr>
<tr>
<td>Democratic Men</td>
<td>4.45</td>
</tr>
<tr>
<td>Democratic Women</td>
<td>4.43</td>
</tr>
</tbody>
</table>

SOURCE: DIME Dataset (Bonica 2016)

To test my argument that primary elections with a woman candidate will attract more challengers than a race without a woman, I estimate a negative binomial regression. Due to the nature of the dependent variable being a count variable and not continuous, number of challengers violates basic assumptions of OLS Regressions. Moreover, with the over dispersion of the number of challengers, having high variance and a binomial independent variable, using a negative binomial regression is the most appropriate model to estimate results in Study 1 (Hoffmann 2004). My model includes number of challengers as the dependent variable and candidate’s gender as the independent variable of interest. I then control for partisanship, an interaction between gender and contribution, seat status, district competition, number of donors, and whether the candidate won the primary election.

The regression results presented in Table 3 show that gender is a significant, positive predictor of the number of challengers in a race at the 99 percent confidence level. This suggests the presence of a woman in a congressional primary election increases the number of challengers in the race. Additionally, as candidates raise more
money, they are expected to have more primary competition. The interaction term for women and the amount of money fundraised is statistically significant at the 99 percent confidence level. With a negative coefficient, this suggests women who raise more money will deter challengers from entering the race. I further explain this finding in the following section. As to be expected from the descriptive statistics listed earlier, Democrats and incumbents are estimated to have fewer primary challengers, while open seats attract significantly more challengers.

The competitiveness of the congressional district has a positive and statistically significant effect on the number of challengers. This could be explained by candidates from both political parties entering the election compared to safe congressional districts in which only one party’s primary election is competitive. Finally, candidates who won the primary experienced significantly fewer challengers in the election suggesting that stronger candidates who are likely to win deter challengers. Taken as a whole, these results find support for the literature and my hypothesis. However, the coefficients of negative binomial regressions only allow us to interpret the significance and direction of the expected outcome. To examine the substantive effects, I estimate the predicted probabilities in Table 4.
Table 3. Number of Challengers in U.S. House Primary Elections from 2002-2012

<table>
<thead>
<tr>
<th></th>
<th>Number of Challengers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Female</strong></td>
<td><strong>.289</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.085)</em></td>
</tr>
<tr>
<td>Contributions</td>
<td><strong>.035</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.003)</em></td>
</tr>
<tr>
<td>Female X Contributions</td>
<td><strong>-.022</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.007)</em></td>
</tr>
<tr>
<td>Democrat</td>
<td><strong>-.071</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.012)</em></td>
</tr>
<tr>
<td>Competition</td>
<td><strong>.572</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.075)</em></td>
</tr>
<tr>
<td>Incumbent</td>
<td><strong>-.204</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.02)</em></td>
</tr>
<tr>
<td>Open</td>
<td><strong>.466</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.014)</em></td>
</tr>
<tr>
<td>Number of Givers</td>
<td><strong>.000</strong></td>
</tr>
<tr>
<td></td>
<td><em>(9.26e)</em></td>
</tr>
<tr>
<td>Won Primary</td>
<td><strong>-.417</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.014)</em></td>
</tr>
<tr>
<td>Constant</td>
<td><strong>1.039</strong></td>
</tr>
<tr>
<td></td>
<td><em>(.05)</em></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>5,780</td>
</tr>
<tr>
<td><strong>Pseudo R^2</strong></td>
<td>.115</td>
</tr>
</tbody>
</table>

**SOURCE:** DIME Dataset (Bonica 2016)

Table entries are negative binomial regression output with standard errors in parentheses

+ p<0.10, * p<0.05, ** p<0.01

As previously mentioned, voters use partisan cues in low-information races. Furthermore, the district seat status is found to have a large effect on the number of challengers who enter a primary election. Table 4 addresses both phenomena in relation to gender by predicting the number of challengers for men and women using the margins command, while holding party identification and incumbency constant. I find support for
my hypothesis and previous research that women are predicted to have more challengers than men at the 99 percent confidence level. This finding remains true regardless of party identification and seat status. The substantial differences are greatest for open seats of both parties. Yet, the predicted number of challengers between men and women candidates is small and within the margins of error for Democratic incumbents. We know that Democratic women receive more support from the party and activists (Crowder-Meyer 2013), perhaps from being viewed as more liberal candidates. Moreover, this suggests challengers view women Democratic incumbents as stronger candidates, thus deterring them from entering the race.

Table 4. Predicted Number of Challengers by Seat Status In U.S. House Primary Elections from 2002-2012

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republican Challenger</td>
<td>4.551** (0.048)</td>
<td>4.668** (0.082)</td>
</tr>
<tr>
<td>Republican Open</td>
<td>8.011** (0.098)</td>
<td>8.217** (0.152)</td>
</tr>
<tr>
<td>Republican Incumbent</td>
<td>3.330** (0.060)</td>
<td>3.420** (0.078)</td>
</tr>
<tr>
<td>Democratic Challenger</td>
<td>4.106** (0.049)</td>
<td>4.212** (0.070)</td>
</tr>
<tr>
<td>Democratic Open</td>
<td>7.227** (0.098)</td>
<td>7.413** (0.132)</td>
</tr>
<tr>
<td>Democratic Incumbent</td>
<td>3.008** (0.054)</td>
<td>3.085** (0.067)</td>
</tr>
</tbody>
</table>

SOURCE: DIME Dataset (Bonica 2016)
Table entries are marginal estimates with standard errors in parentheses
+p<0.10, * p<0.05, ** p<0.01

Republican men and women are predicted to have significantly more challengers than Democrats regardless of seat status. As shown in Table 4, Republican candidates
have a larger difference in number of challengers between men and women compared to Democratic candidates. This may be due to the liberal stereotype often applied to women candidates, encouraging more challengers to enter races with Republican women (who also tend to fundraise less). The partisan differences in number of challengers could also be a result of the “primarying” era this study examines. For example, within the six election cycles studied, the Republican Party has experienced many factions such as the rise of the activist Tea Party group; which, as Boatright (2014) suggests, is using primary elections as a tool to challenge current members of Congress for social change.

To summarize the results in Study 1, I find female candidates do attract more primary competition than male candidates. Partisanship also has a significant impact on the number of challengers, with Democratic candidates having fewer challengers than Republicans, and Republican women facing the most primary competition. As to be expected, the seat status of each election has a significant effect on the number of challengers willing to enter the race. Finally, candidates who raise large amounts of money are more likely to deter challengers from declaring candidacy. Taken together, these results support my hypothesis that women experience more crowded primary elections.

Additionally, Study 1 finds initial support for my theory stating challengers hold beliefs that women are weaker candidates. It is apparent that Republican and Democratic women experience different electoral arenas. Democratic female candidates fare better in fundraising, reap more benefits from the incumbency advantage, and have less crowded fields (Palmer and Simon 2001). As a result, it appears that political elites and voters support Democratic women, increasing their strength as a candidate and ultimately
deterring challengers from entering the race. On the other hand, Republican women are likely to have the highest number of challengers regardless of their seat status. This may be because women are viewed as more liberal (Kitchens and Swers 2016), requiring Republican women to battle gender and ideology when being evaluated by voters, political elites, and challengers

**Gender and Fundraising**

Donors are selective about which candidate they make a contribution to in hopes of contributing to the stronger candidate (Jacobson 1978). Yet, research finds no significant difference in campaign finance between men and women (Milyo and Schosberg 2000). Therefore, as a proxy measure for candidate quality,4 I include an interaction variable for gender and contribution amount received by candidates. Adding this interaction to my negative binomial regression raised the p-value of all variables in the model to reach statistical significance at the 99 percent confidence level.

As shown in Figure 1, women are predicted to face more primary competition than men, until a particular threshold5 is met, when the number of challengers is left at its mean.6 At that threshold, the effect of being a woman on the number of challengers disappears. In other words, women who raise a large amount of money are not likely to

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4 Extensive literature has questioned the most efficient measure of candidate quality such as previous office-holding experience (Jacobson 1978), opinion of district observer (Fulton 2012), and endorsement by major political party (Milyo and Schosberg 2000), etc.

5 Approximately the natural log of 13.

6 Averaging the election results allow for a quick understanding of the trends women candidates experience in regards to number of challengers.
experience an influx of challengers due to their gender. While women raising less money have more challengers than men raising similar amounts. This suggests women who do not raise much money are perceived as weak candidates, thus attracting more challengers. It appears that meeting the monetary threshold signals to potential challengers the strength of female candidates, which deters additional challengers from entering the race.
Figure 1. Probability of Attracting Challengers Based on Gender and Fundraising

It is important to note once again, the contribution data within this study includes money fundraised in both the primary and general election. It is possible this limitation is skewing the results in which candidates who win the primary are found to fundraise more, therefore, viewed as even stronger candidates within this study. I recommend future research to solely look at money fundraised in the primary election.

To help control for the amount of money fundraised between the primary and general election, Figure 2 and 3 examines the number of challengers for candidates who
won the primary\textsuperscript{7} and lost the primary,\textsuperscript{8} respectively. Both figures follow a similar trend in which women candidates are predicted to have more challengers than men, and once candidates meet a monetary threshold, the effect of being a woman disappears. However, as you can see in Figure 2, there is not a large discrepancy between men and women candidates who won the primary election, and therefore advance to the general election. The overlapping margin of errors suggests the number of challengers is virtually the same for male and female candidates. It appears that men and women who won the primary election experienced the same number of challengers, which does not support my hypothesis. This may be explained by women receiving contributions, particularly seed money, from women’s PACs such as EMILY’s List and Susan B. Anthony List that focus on electing women to Congress by funneling campaign donations to women. Typically, PACs wait to support a candidate until they are a viable candidate and will be advancing to the general election (Crespin and Deitz 2010; Hannagan et al. 2010). Therefore, the difference in number of challengers based on money fundraised could be a result of PACs increasing their contributions to strong women candidates, who then continue their campaign for the general election.

\textsuperscript{7} Contribution amounts for candidates who won the primary will include money fundraised in the general election.

\textsuperscript{8} Only the contribution amount fundraised for the primary election is included in the estimate.
Examining candidates who lost the primary election, Figure 3 offers further support for my hypothesis that women are predicted to experience more primary competition than men. It also only examines fundraising by candidates for the primary election. The predicted number of challengers is approximately the same for women regardless of how much the candidate fundraised. Similar to Figure 1, once a woman meets a particular threshold men are predicted to have more challengers than women. Due to the number of challengers being fairly consistent for primary losers, this graph suggests support that women candidates are viewed as more vulnerable, increasing the number of challengers in the race regardless of monetary support received. However, male candidates continue to attract more challengers as they fundraise more. From these findings, it appears the amount of money fundraised by a candidate can be a signal for
voters- in which men who raise large amounts of money are viewed as trying to compensate, while women who raise large amounts of money may signal their strength as a candidate to challengers. Further research will need to explore these findings.

![Figure 3. Predicted Challengers for U.S. House Primary Election Losers](image)

To examine the challenger’s perception of candidate strength, Figures 4 and 5 show the predicted number of challengers for incumbents and non-incumbents, respectively, with the assumption that incumbents are stronger candidates. It appears in Figure 4 that female incumbents are predicted to have significantly fewer challengers than male incumbents. However, after reaching the contribution threshold, women are expected to attract challengers at a higher rate than men. These findings suggest challengers are discouraged to enter races when they will face a woman incumbent.
Therefore, the incumbency advantage is well supported by Figure 4; in fact, women incumbents are predicted to have fewer challengers than men. This can be explained by the perceived quality female incumbents hold. Once in office, voters and political elites see the work ethic and ability of women (Anzia and Berry 2011), which is taken into account by potential challengers. Yet women who raise large amounts of money have a steep increase of challengers. As Jacobson (1978) finds, the more money incumbents spend, the worse they do. He argues incumbents who raise large amounts of money are reflecting the perceived electoral threat of a challenger. Figures 3 and 4 appear to support this claim, in which fundraising large amounts of money limit the effect of gender, which possibly signals to challengers the candidate is weak, thus increasing the predicted number of challengers.
Figure 4. Predicted Number of Primary Challengers for U.S. House of Representatives Incumbents 2002-2012

Similar to Figures 1-3, Figure 5 depicts that women candidates are faced with more primary competition than men, with a threshold in which the effect of gender disappears. The unambiguous difference in patterns of challengers between incumbents and non-incumbents offer support that women are viewed to be weaker candidates by challengers depending on fundraising and candidate type. Once in office, challengers are discouraged from entering a race with a woman incumbent. However, prior to attaining office women must contest significantly more challengers for a chance to advance to the general election.
Taken as a whole, these findings suggest women candidates tend to experience more crowded primary elections than men. Non-incumbent women are thought to be more vulnerable candidates by challengers until they raise large amounts of money. It is likely that challengers realize women who win the primary election and who are already incumbents have strong support from political elites and voters. Therefore, challengers are discouraged to campaign against strong women candidates. However, it is unclear whether women have more challengers because, statistically, they are more likely to enter a race with more candidates, or if candidates enter the race after a woman declares candidacy. The following study seeks to address this question.


**Study 2: Candidate Filing Dates**

Thus far, this paper has examined patterns and trends of challengers entering the primary election and confirms findings from the previous researchers. Yet, Study 1 cannot speak to candidate emergence nor suggestively examine if the increased number of challengers is due to a woman in the electoral arena. To explore this, I look at candidate filing dates to understand whether challengers enter before or after a woman files.

To date, very few studies have examined filing dates and the effect declaration of candidacy has on an election. Current literature finds differing filing fees and signature requirements impact the number of challengers in an election (Stratmann 2005). Specifically, higher filing fees and more stringent signature requirements lower the number of major party challengers. Furthermore, Carson et al. (2007) finds strategic candidates often wait to beat a strong challenger in the primary, in hopes of a victorious election against an incumbent in the general election. However, to my knowledge, scholars have not examined when a candidate enters a primary election in regards to gender. This study makes a first attempt to understand the timing of candidates entering the primary election as a robustness check for the results in Study 1 to see if gender has a causal effect on number of challengers in a primary election.

To study this, I estimated the propensity score for every congressional district/cycle. I used factors about the race- including district partisanship, the presence of an incumbent, total district contributions and the number of candidates, to predict a propensity score indicating the likelihood of a woman entering the race. I then collected a sample of 5 percent of the election that include a woman candidate (Group A) to create a
new dataset. Next, I matched the propensity score to a statistically similar race without a woman candidate (Group B) to allow me to isolate the causal relationship of the effect of gender on the candidate, resulting in a 10 percent sample of my population. This method allows a comparison of statistically similar elections with the only difference between the races being the presence of a female candidate. Through propensity score techniques, I am able to isolate the factors that predict a woman entering a race, and match these districts where a woman did enter a race with districts that have a similar statistical likelihood of a woman entering a race, where one did not enter.

In total, the sample consists of 260 primary elections from 2002-2012 resulting in 886 observations. For every candidate within the sample, I collected filing dates of when the FEC received the official Statement of Candidacy. If women candidates are perceived to be weaker candidates and foster a sense of a friendlier electoral arena, I expect there to be significantly more challengers entering a race following the declaration of a woman.

In the dataset, I kept all of the matched races (Group A and Group B) paired together and created a binary variable, after female, as a metric for whether the candidate entered before or after the first woman in Group A. The first woman who declared candidacy in Group A is the reference for all candidates within Group A and B for the

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9 The filing dates for amended declarations were not used, focusing on the new statement ensures filing dates for all candidates are when the candidate takes the initial steps to follow their ambition to run for office.
matched races. I then coded *after female* 0 if the candidate entered the race before the first woman, and 1 if the candidate entered the race after the woman.\textsuperscript{10}

Due to the small number of observations in my random sample, a t-test is the most appropriate method to estimate statistical significance by comparing the means of candidate filing dates and elections with women candidates. The results in Table 5 find more candidates enter a race before the first woman declares candidacy. As well as show a close difference between the mean number of challengers who entered a race before and after a woman candidate. However, the p-value of .0675 does not reach standard levels of significance. It is plausible that the number of observations in the sample is not high enough to confidently test for statistical significance.

<table>
<thead>
<tr>
<th>Filing Date</th>
<th>Observations</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Woman Entered</td>
<td>414</td>
<td>.483 (.024)</td>
</tr>
<tr>
<td>After Woman Entered</td>
<td>340</td>
<td>.550 (.027)</td>
</tr>
<tr>
<td>Combined</td>
<td>754</td>
<td>.513 (.018)</td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>-.067 (.037)</td>
</tr>
</tbody>
</table>

\[ t = -1.830 \]
\[ \text{Ha: } \text{diff} \neq 0 \]
\[ \Pr(|T| > |t|) = .0675 \]

\textit{SOURCE:} DIME Dataset (Bonica 2016)

Table entries are two-sample t-test means with standard errors in parentheses.

\textsuperscript{10} The women used as a reference were excluded from the estimates.
To estimate the number of challengers who entered the race before and after a woman for races including woman candidates and those that do not, I estimate two models, as shown in Table 6. The comparison of means for both models reach statistical significance, which suggests candidates are strategic when deciding to declare candidacy. Taken together, Table 5 and 6 tests the timing of candidate emergence. The null hypothesis states candidates will enter the election with a random distribution. In other words, to accept the null hypothesis, I expect to see equal variance for when candidates enter a race before and after a woman declares candidacy.

In Model 1, the candidates who enter before a woman and after a woman should be the same due to the propensity matching accounting for the number of challengers. However, there is a large difference between the number of candidates who enter a race before a woman depending whether a woman enters a race or not. It appears in Model 1 that women are more likely to enter a race with fewer challengers. This may suggest women are strategic in their decision whether to run for office by entering races that have fewer candidates due to the finding that fewer challengers have entered a race prior to a woman declaring candidacy, when a woman is in the race.

In Model 2, the difference between candidate emergence in races with and without women shrinks after a woman enters a race. Before a woman enters a race there is a large difference in between the number of challengers who enter a race with and without a woman. However, the gap shrinks in Model 2 which looks at candidate entry after a woman enters the race. These findings support my theory that gender does play a role in potential challenger’s decision to declare candidacy. Furthermore, after a woman enters the race, Model 2 finds statistical significance for races with women having fewer
challengers than races without a woman. This may be explained by the quality of women entering the race, which deters potential challengers. However, a limit to this technique is the inability to control for candidate quality, future research will need to explore these findings.

Table 6. Comparing Mean Number of Challengers Entering Before or After a Woman in Primary Elections from 2002-2012

<table>
<thead>
<tr>
<th></th>
<th>Model 1: Before</th>
<th>Model 2: After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race Without Woman</td>
<td>2.629** (.111)</td>
<td>2.817* (.179)</td>
</tr>
<tr>
<td>Race With Woman</td>
<td>1.79** (.089)</td>
<td>2.36* (.109)</td>
</tr>
<tr>
<td>Combined</td>
<td>2.18** (.141)</td>
<td>2.57* (.103)</td>
</tr>
<tr>
<td>Difference</td>
<td>.837** (.142)</td>
<td>.457* (.205)</td>
</tr>
<tr>
<td>n = 885</td>
<td>n = 885</td>
<td></td>
</tr>
<tr>
<td>t = 5.8987</td>
<td>t = 2.2289</td>
<td></td>
</tr>
<tr>
<td>Ha: diff != 0</td>
<td>Ha: diff != 0</td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: DIME Dataset (Bonica 2016)

Table entries are two-sample t-test means with standard errors in parentheses +p<0.10, * p<0.05, ** p<0.01

The purpose of Study 2 is to begin to understand why challengers enter a primary election, and whether gender is a factor. Estimating t-tests instead of a multivariate analysis is beneficial in the initial stages; however, variables that also influence a candidate’s decision to run for office cannot be controlled for. Therefore, these t-tests serve as an initial study to understand relationships but will need to be explored further especially using a larger sample size to uncover more definitive results. An additional limitation to this study is not controlling for the filing deadline for each state. The filing deadline could encourage candidates to file earlier in the election cycle. This is a particular concern if the race with a woman has an early deadline and the matched race
has a later deadline that allows for candidates to be laxer regarding when they declare candidacy.

These results warrant encouragement for future scholars exploring whether gender has an effect on the timing of candidate emergence in primary elections. The results do not find candidates enter at a random distribution, but suggestively they are selective with their decision of when to run. Furthermore, once a woman does enter a race, the difference in the number of challengers between races with and without women shrinks, which provides initial evidence that a candidate’s gender affects the emergence of challengers. In other words, the presence of a woman in an election encourages more challengers to enter the race.
DISCUSSION AND CONCLUSION

This research project advances studies on gender and elections by examining if women have a more crowded electoral experience in congressional primaries. My theory suggests the increased number of challengers is due to an inherent perception that women are weaker candidates, stemming from gendered stereotypes and the socialization young girls receive in their childhood and continue to experience throughout adulthood. I find support for my hypothesis that women attract more primary competition, which is especially true for Republican women. Democratic female incumbents experience the least amount of challengers, lending support to the idea that Democratic women benefit from the liberal stereotypes often applied to female candidates and receive more support from party elites. Additionally, the effects of gender on number of challengers disappear for women who raise large amounts of money for their campaign. This suggests women who raise more money are viewed as stronger candidates, thus deterring challengers from entering the race.

Through propensity score matching techniques I compared candidate-filing dates in races with and without women. Results suggest women are strategic and are more likely to enter an election with fewer candidates. Furthermore, I find evidence that after a woman declares candidacy, there are significantly more challengers who enter the race. The findings in Study 2 indicate important trends that warrant further research. However, the modeling is not perfect in that candidates are only matched on district-level variables. Further research should match on the individual-level to control for quality of candidates.
This paper serves as a first step to uncover the trends associated with primary competition. I recommend future scholars to continue both studies while making the following improvements. Researchers need to study more elections in the 20th Century as well as extend deeper into the “primarying” era to improve the generalizability of the results. Second, the measurement for fundraising will need to solely look at primary elections to isolate the effects of contribution amount on the single election. Finally, adding a variable for state filing fees and required number of signatures that will allow researchers to control for state requirements that may deter prospective challengers from entering the race.

After the first step of research is established and confidence in the results whether women face more primary competition due to their gender are established, scholars will want to advance research towards qualitative methods or use a mixed methods approach. Such studies will establish the causality of challengers entering a race through survey data of candidates and the collection of observational data. This will help researchers understand a potential candidate’s decision to run for office and the perception of fellow candidates to test whether women are perceived to be vulnerable candidates due to gendered stereotypes and socialization practices.

Now that theories of the incumbency advantage and eligibility pool have received extensive attention, furthering the exploration of a woman’s path to office has the potential to improve representation in America. Studying perceived candidate strength will allow scholars to improve the direction of future studies and find a solution to decrease the limiting perceptions held by voters, political elites, and potential challengers. Without fully understanding the intersection of gendered stereotypes and how it may
affect the electability of a woman, the advancement of women may become stagnant. Continuing to study primary elections will allow for scholars to explore candidate emergence and political ambition for those who have the intent to run for office. As theories of gender and candidate emergence are established, future scholars will be able to make prescriptive recommendations to women running for office to improve their perceived identity.
REFERENCES


