The Rise of the Iron Ladies:
Female Leadership in Democracies (1960-2015)

Caroline Johnson
Department of Government and Politics, University of Maryland

Thesis Advisor:
Dr. Kathleen Gallagher Cunningham

Defense Committee:
Dr. Kanisha Bond
Dr. Sarah Croco
Dr. Kathleen Gallagher Cunningham
Abstract

Since Sirimavo Bandaranaike became the first female prime minister in 1960, there has been a gradual increase in the number of women entering top political office. In 2013, there was a peak of 14 women leading democracies. However, most previous research used case studies and did not focus specifically on female leaders coming to power in democracies. This thesis investigates two aspects of female leadership in democracies: first, what common characteristics can be identified in the countries where women enter top office, and second, what do female leaders look like compared to their male counterparts? The data indicates that female leaders are more likely to achieve power in democracies in which women have had the right to vote for a longer period of time and in which the executive is a powerful presidency. Female leaders are also more likely to be in power in countries with lower female enrollment in secondary education, where women have had the right to vote for longer a longer period, where there was a recent conflict, in which there is a dual executive, and in which the executive is a powerful presidency. This presents an interesting difference between women coming to power and staying in power. Compared to similar male leaders, the women who come to power are less likely to have children and more likely to have family ties to power. Compared to subsequent female leaders, first female leaders tend to have less prior political experience and are less likely to have experience at lower levels of government. The results have positive implications for the emergence of female leadership in democracies.
Part 1: Background

Introduction

Since Sirimavo Bandaranaike became Prime Minister of Sri Lanka in 1960, a total of 40 democracies and 7 non-democracies have had female leaders. This is only a small percent of the world’s 193 states. From 1960 to 2015, there have been only 47 female leaders of democracies, compared to 676 male leaders; this translates to a paltry seven percent. This lack of representation in the highest level of government is very concerning. It is far less than the “half of the sky” women deserve and is far from equal representation. There can be numerous arguments made about the benefits of having female political leaders, from empowering young women (Wolbrech & Campbell, 2007), to promoting family- and minority-friendly policies (National Democratic Institute, 2012), to building more collaborative and open governments (Morris, 2016). However, female leadership should not be encouraged simply because of the tangible benefits it can bring to a state and its population. These female political leaders are fundamentally important because women deserve equal access to all parts of society, including to top political office. Although there is a significant body of literature on female leaders, much of it is more than a decade old. Female leaders have made huge strides in the last ten to fifteen years, so an updated analysis of female leadership is needed. Furthermore, little of this research focuses specifically on democratic leaders. Instead, it tends to look at heads of government and states in all countries or on female representation in legislative bodies. Thus, this thesis aims to address a gap in the literature on female executives in democracies.

This question of female leadership was motivated by the 2016 US election, which brought to the forefront questions of what it takes for a woman to be elected president in the United States, one of the most consistently democratic states in the world. Hillary Clinton was an
extremely experienced candidate, serving as First Lady at both the state and federal level, as a federal senator, and as the Secretary of State. In contrast, Donald Trump had no political experience, although he had significant business experience and public name recognition. The leadership styles and campaign promises of the two candidates were also very different. Trump adopted a confrontational style with aggressive policy proposals, while Clinton projected a calm demeanor and leveraged her extensive political experience to propose reasonable solutions to the major political issues. There were allegations that sexism played a role in Clinton’s defeat and in her ability to connect to voters, including from the former Secretary of State herself (Maxwell & Shields, 2016; Walters, 2017). Although many other factors contributed to Clinton’s loss, it can be said that she was judged more harshly and treated differently as a candidate because of her gender.

In her concession speech, Clinton stated “I know we have still not shattered that highest and hardest glass ceiling, but someday, someone will” (Keneally, 2016). Clinton’s “highest and hardest” glass ceiling has not yet been broken in the United States, but it has been in 40 democracies around the world. In this thesis, I am interested in understanding what it takes to break this glass ceiling. Are there certain aspects of a society or political system that increase the likelihood of a woman entering top political office? Are there significant differences between female heads of governments and their male counterparts, or between the first female leaders and their female successors? The overarching question I am investigating is as follows: what does it take for a woman to overcome the bias of her society and become the leader of her country?
**Current Trends**

In this thesis, the trend of female executives in democracies will be studied. The Archigos dataset will be used to identify the executives; the authors of the dataset focused on the “actual effective ruler[s]” of each state. In parliamentary systems, this is the prime minister; in presidential systems, this is the president; for systems with a dual executive, the effective ruler depended on the individual state (Goemans, Gleditsch, & Chiozza, 2016). I am interested in studying executives identified by Archigos because these positions are the most politically important; they are the ones that matter in terms of governing. Other positions, such as figurehead presidencies or premierships in a system dominated by the president, may be less involved with true governing. Only those executives ruling in democracies will be considered; democracies are defined as countries with a Polity score of six or greater in the year being considered.

In general, there have been an increasing number of female executives since Bandaranaike entered office in 1960. Figure 1 displays the onset of female leaders in democracies from 1960 to 2015. Although the trend is towards an increase in the onset of female leaders over time, in most years, only one female leader enters office. There was a peak in 2010 in which five female leaders entered power: Kamla Persad-Bissessar in Trinidad and Tobago, Laura Chinchilla in Costa Rica, Doris Leuthard in Switzerland, Iveta Radicova in Slovenia, and Julia Gillard in Australia. It is a positive sign that at least one female leader has entered power in every year since 2004. Between 1960 and 2004, there were 32 years in which no female leaders entered power. Figure 2 displays the incidence of female leaders in democracies from 1960 to 2015. The trend in the number of women in office is stronger than the number of women entering office. There is a steady increase over time, with a peak of 14 female leaders in power in 2013.
The following two maps display the geographic distribution of female leaders in democracies. In both maps, non-democracies are excluded and coded as white. Figure 3 shows the spatial distribution of the onset of female leadership; most democracies have not had a
female leader, while one country (Switzerland) has had more than four female leaders. Some clustering in Western Europe and Southwest Asia is evident. Figure 4 maps the incidence of female leaders in democracies. Many of the democracies have never been led by a female executive; several have been led by a woman for more than twelve years. Again, clustering can be seen in Western Europe and Southwest Asia.

Figure 3
Questions to ask and answer

I am interested in female executives specifically in democracies. I believe that looking at these female leaders in the context of democracy will be especially interesting because of the influence of the public and their importance in elections. In autocracies, leaders can come to power via elections, but there are other routes which may be exclusionary to women, such as military coups or strongman politics. However, in democracies, the path to power is through the electoral process. The election of the executive can be direct, such as in presidential democracies where the president is elected by the people. In other situations, the election of the executive is indirect, as is the case in parliamentary democracies where the leader of the majority party becomes prime minister, but that individual is only directly elected by their relatively small constituency.
Overall, in this thesis I am seeking to answer three questions. First, are there certain characteristics of democracies that increase the likelihood that a female executive will come into power? Second, what do female executives look like in comparison to their male counterparts? Finally, how do the first female leaders compare to subsequent female leaders? The overarching question revolves around what characteristics, if any, allow these female executives to overcome the barriers faced by other female politicians and enter the highest office in their country.

I am interested in the type of societies that elect female leaders and the type of women who become those leaders not just from a theoretical standpoint or from a desire to see politics in the international system move towards equality. Literature has shown that there are benefits to female leadership. Having more women in the legislature increases the likelihood that teenage girls and adult women will talk about politics and participate or intend to participate in politics as adults (Wolbrech & Campbell, 2007). This representation addresses one aspect of the supply problem: women need to put themselves forward for consideration. Women seeing other women in positions of political leadership is encouraging and promotes changes in the way that young people are politically socialized. Having women in top office is also important in terms of policy. Female leaders help advance certain types of policy, especially those that improve quality of life and help families, women, and minorities (National Democratic Institute, 2012). Having these policies can further improve diversity in government. For example, women who may have otherwise been excluded from government because of family obligations could enter office because of family-friendly policies like mandatory paid maternity leave. Finally, female leaders tend to form more collaborative and open governments. They are more likely to work across party lines and promote diversity and inclusion (National Democratic Institute, 2012; Morris, 2016). Creating these types of governments leads to better policies and increases the likelihood
of improved representation in the future. Thus, this thesis will examine the characteristics of
countries where female leaders come to power and how those female leaders compare to their
male counterparts.
Part 2: Theoretical Background

Literature Review

There is a substantial body of literature related to female representation in the government, focusing both on the executive and the legislature. This literature review can be divided into several subcategories: barriers to the entry of female leaders, female stereotypes and societal views of women in power, and the traits of female political leaders.

Female leaders face certain barriers to entry in the political system that are not experienced by male leaders. Three factors tend to be identified as explanations for why there are fewer women in political office. These include political socialization, structural factors, and discrimination against women (Genovese, 1993). Individuals in most societies are socialized to view politics as a “man’s world.” This is a cyclical problem. Women are less likely to run for office because of the lack of representation of women and minorities in public office (Bourque & Grossholtz, 1974). Those in power shape societal expectations; if the president of a country has always been a man, society will continue to expect a man to be elected. This socialization presents a barrier to diversity in political leadership and contributes to one side of the supply issue. Women need to be able to see themselves as political leaders in order to put themselves forward for consideration.

Structural factors in democracies also act as barriers to female leadership; these factors are present on both the supply and demand sides of the electoral equation. First, as previously mentioned, women are less likely to put themselves forward for political office. Second, women may be disadvantaged by the process during which political gatekeepers evaluate candidates. It is difficult for women to break into politics in the traditional party system, making it hard to get experience in electoral politics. They are often put into fundraising or clerical roles, which reduces their ability to gain the type of experience that helps one get elected (Jensen, 2008).
Developing an area of expertise (for example, economics) or entering the civil service can help overcome this barrier by circumventing the party structures. However, women should have equal access to participation in electoral politics. Traditional political party structures often fail to initially support female candidacy; there is a pattern of popular support preceding traditional party support (Adler, 1996). Parties may underestimate the strength of a woman’s candidacy and be proven wrong by the electorate. When parties do run female candidates, they tend to send them to risky districts, allowing male candidates to contest safe seats (Rasmussen, 1981). Female candidates are more expendable to traditional party establishments. Parties may fail to support female candidates not because of a lack of qualification, but because of a fear that the electorate will not support the candidate (Jensen, 2008). Thus, a structural issue emerges when party gatekeepers lag behind the public and reduce the demand for female candidates, even if those female candidates present themselves.

Another important structural feature that affects female representation is the type of electoral system. More women are elected in proportional systems than in single-member district plurality systems (Norris & Inglehart, 2001; Jalalzai & Krook, 2010). Using proportional representation as the baseline, first-past-the-post and block vote systems result in a statistically significant depression of the percent of women in the legislature (Reynolds, 1999). In first-past-the-post systems, the election rides on the appeal of the candidate, allowing any bias on the party of the voters to have a large effect. In proportional representation, the party plays a much larger role. It could be true that parties are more willing to have women on their party lists instead of their sole representative in elections. Furthermore, having intraparty preference votes can also disadvantage female candidates. Valdini (2012) found that voters themselves act as political gatekeepers during these votes, in which they are required to indicate their preferred candidate.
among several candidates of the same party. In societies with traditional gender norms, when voters select candidates from a list to be the candidates, there will be fewer female candidates in the general election. In places without traditional gender norms, the type of proportional representation does not affect the number.

It is also important to consider whether the executive is elected directly or indirectly. This has a significant impact on the size of the constituency that the leader has to win over. For example, in 1959 Margaret Thatcher was elected as the Member of Parliament for Finchley, a constituency in north London (Margaret Thatcher Foundation, 2017). It was only in 1979, when the Conservative Party won the majority under her leadership, that she also became the first female prime minister. In 1979, the size of the Finchley constituency was only 55,683 people, while the UK had a total population of 56 million in that same year (“UK General Election results”, 2012; Office of National Statistics, 2016). In comparison, Laura Chinchilla was directly elected as the first female president of Costa Rica in 2010, where the total population was approximately 4.5 million (Seligson, 2011). A woman running for president must overcome the bias of a country; technically, a woman who becomes prime minister needs only to overcome the bias of her constituency (along with that of her party) in order to become the leader. It is also important to consider that there is significant variation in parliamentary democracies, and among political parties within these democracies, regarding how party leaders, and thus, how future prime ministers, are chosen. In a presidential democracy, the electorate votes for their preferred candidate. In a parliamentary system, the leader of the majority party becomes the prime minister. This leader may be voted upon by all members of their party, by a certain selection of members, or by the party’s MPs.
In electoral politics, the electorate may be influenced by various values they hold, which influences their choice of candidate. In post-industrial societies, egalitarian attitudes towards women in political office tend to be more widespread. In 2011, a Gallup poll found that 95% of respondents in the United States answered that they would vote for a woman for president if their party nominated her and she were qualified for the job (Roper Center, 2016). However, it is possible that this number is inflated due to the social desirability effect, in which respondents answer falsely to conform to social norms. In this case, they may say they would vote for the female candidate, even though they would not, in order to avoid being perceived as sexist.

Another study which tried to circumvent this effect by using a list experiment found that about 26% of Americans are upset about the prospect of a female president (Streb et al., 2008). This presents a much different view of the attitudes of the public towards female political leaders.

These studies focus solely on the United States, but present an interesting case about how women are perceived as political leaders. These attitudes revealed in the studies play a part in the supply and demand sides of the equation; if party gatekeepers believe the public will not support a female candidate, they will not run her in an election. If a potential female candidate feels she will never be an electoral success, she will not put herself forward. Finally, the presence of gender quotas in party candidate-selection rules can increase demand and make it easier for women to get by political gatekeepers (Norris & Inglehart, 2011). This is a potential structural solution to increase female representation.

Reynolds (1999) considered several aspects of society and their influence on female representation. First, the best predictor of female cabinet ministers was female representation in the legislature. He also found that the population, level of democracy, and level of urbanization were insignificant to predicting female cabinet ministers and percent of women in the legislature.
The legislatures in Buddhist, Eastern Orthodox Christian, and Muslim countries tend to have a lower percentage of women in the legislature when using Catholic countries as the baseline.

Interestingly, Stockemer (2009) did not find a significant difference in the representation of women in democracies and non-democracies after controlling for the type of electoral system, quotas, workforce participation, corruption, and GDP. This demonstrates that issues with female representation are not limited to non-democracies or less developed countries. However, the path to power in a democracy is very different from a non-democracy. Thus, there are different challenges to female candidates in democracies. For example, the path to power in Africa can be exclusionary to women; there is a history of forceful seizures of power and political participation which is often organized around specific leaders, making it difficult for women to obtain political power (Jalalzai, 2008). Focusing on democracies allows an analysis on the role of the public in increasing female representation.

Female leaders and candidates for leadership face stereotypes about their gender and must contend with societal views of women in power. Eagly and Karau (2002) proposed a role congruity theory of prejudice towards female leaders, which stems from society holding stereotypes about women and believing that these stereotypes are incongruent with the characteristics needed to succeed in political leadership. Women are often assigned communal characteristics, such as affectionate, sensitive, nurturing, and gentle; in contrast, men are assigned agentic characteristics, such as assertive, confident, independent, and dominant. The effect of these assumptions manifests in two ways for female leaders. First, women are seen as having less potential for leadership because political leadership is associated with stereotypically male characteristics. Second, female leaders who violate the expectations of their gender can experience negative reactions as a result. These successful women are viewed as hostile or
selfish; there are many female leaders who have been assigned nicknames like “Iron Lady” or “Dragon Lady.” These nicknames specifically highlight the contrast between femininity and toughness, suggesting that a woman who earns the epithet deviates from the expectations of her gender.

Huddy & Terkildsen (1993) also found a preference for “male” personality traits in candidates for national political office. There exists a bias against candidates without masculine traits, which suggests that women who show voters that they possess these traits could be more successful in bids for national office. This can be seen in the tendency for female candidates to adopt combative policy stances and language to fight gender stereotypes. For example, Margaret Thatcher refused to compromise her conservatism and advocated for a strong defense; she was more than willing to fight for her beliefs and policies (Moore, 2011). She was not viewed as having typically feminine characteristics. Furthermore, men also are seen as more competent regarding issues of national security and military crises (Lawless, 2004). This attitude is more prevalent among individuals with aggressive attitudes towards foreign and defense policy; “hawks” are 30% more likely than “doves” to believe that men are better able to handle military crises than women. Even when women break into the executive, such as being appointed to a cabinet position, they tend to be given “soft” portfolios, such as social affairs, health, or environment, instead of “strong” portfolios like foreign affairs or finance (Hoogensen & Solheim, 2006). This reduces their influence on major policy areas and reduces the likelihood that they will move to top political office. Most voters would prefer a candidate with experience as a foreign or finance minister over one who was an environmental minister.

Some women combat these expectations by embracing them. They may use the familiar language of motherhood and sisterhood to appeal to the electorate; these traditional roles can
positively connect to the people (Adler, 1996). However, it is important not to stereotype women in power. Some women who reach top political office use masculine leadership styles, like the aforementioned Margaret Thatcher. Furthermore, once in office, women may or may not help advance the cause of other female politicians. Many fail to improve the status of women during their time in office (Jalalzai & Krook, 2010). Instead of opening the government to women, they “pull up the ladder.” In fact, one study found that female leaders tend to appoint fewer women to cabinet positions (O’Brien et al., 2015). This presents an interesting situation; female leaders may feel constrained in their ability to appoint other women to powerful positions because of a fear of backlash or accusations of preferential treatment.

Identifying where female leaders are likely to emerge involves understanding what citizens want to see in their leaders. A Pew Research Center survey found that American respondents identified honesty, intelligence, and decisiveness as essential traits for leaders. Women were much more likely than men to believe that compassion was essential in a leader. Of individuals in top political positions, women are seen as more honest and ethical (Parker, Horowitz & Rohal, 2015). However, 47% of women, compared to 29% of men, believe that women seeking high political office are held to higher standards and need to prove themselves more than men. This disparity could also contribute to the supply issue of female representation. Women may be less likely to put themselves forward because they believe the rules are different for male and female politicians. Men are slightly more likely to believe that men make better political leaders, as are older generations; but, the difference is relatively small. Consistent with other literature, respondents believe that men are better at dealing with issues related to national security and defense.
There is a small body of literature about the traits of female executives and the systems in which they emerge. Jalalzai (2008) found that women are more likely to be executives when they share power with men; they are more constrained, which may make the electorate more comfortable with their choice. In these dual systems, women tend to be in the weaker position. Similarly, women are more likely to be prime ministers; this is one way to bypass a biased electorate (Jalalzai & Krook, 2010). Prime ministers are also seen as more collaborative; in unified parliamentary systems, legislature and executive power is joined, making cooperation key. Collaboration is a more stereotypically female quality, so women may be viewed as suitable for the position. In contrast, presidents are expected to be decisive and self-confident and to act independently of the legislature; these traits are considered traditionally masculine. Prime ministers are also more vulnerable than presidents; the former can be ousted not only by elections, but also by votes of no confidence. Having a female prime minister could therefore be considered less threatening than having a female president. Interestingly, lower GDI (lower gender parity) is associated with female executives. Jalazai & Krook (2010) found that female executives have tended to emerge in countries where the educational and economic status of women lags behind men. However, women who rise to power in these countries are highly educated and more privileged than the women in the general population. Their elite status could mitigate the disadvantage of their gender.

Female leaders are also more likely than men to have family ties to power, often through a father or husband. Adler (1996) found that approximately one-third of female leaders had family connections to power; almost all had their father or husband assassinated before they gained power. These ties are especially important in Asia and Latin America. Female leaders who enter power after the death of a husband or father can be seen as symbols of legacy or unity;
these women can build their political vision around these themes. Furthermore, Jalalzai and Krook (2010) found that, at the time of their article, no woman in Asia or Latin American had ever come to power without family ties. These widows and daughters of political leaders (including Sirimavo Bandaranaike of Sri Lanka, Khaleda Zia of Bangladesh, Isabel Peron of Argentina, Indira Gandhi of India, and Benazir Bhutto of Bangladesh) were some of the first female leaders. Having these strong ties to former leaders helped them gain the trust and support of the electorate (Jensen, 2008). Their connection to power was one of the factors that contributed to their ability to break the glass ceiling in their country.

Societies also hold certain expectations regarding female leaders and their children. Gro Brundtland of Norway expressed that “there simply isn’t time to be a mother, wife, and a politician at the same time” (Jensen, 2008). This sentiment seemed to be echoed in a Pew Research Study that found that 49% of Americans believe that a woman’s family responsibilities do not leave enough time for politics (Parker, Horowitz, & Rohal, 2015). The same study found that 22% of the respondents believe that a woman with leadership aspiration would be best not to have children at all, 36% think she should have them early in her career, and 40% think she should wait until she is well established. Although public opinion is divided over when she should have children, it seems to be the consensus that a woman must carefully plan her career around her children, an expectation that does not exist for men.

Women face a double standard around family and children when they are in the professional world or public eye. In business, the dual motherhood penalty and fatherhood bonus exists. Men are rewarded for having children; they are more likely to be hired and tend to be paid more than childless men. Women are punished; mothers are less likely to be hired, are perceived as less competent, and tend to be paid less than childless women (Miller, 2014). This could
translate to politics; voters like to see a candidate that has a family and children. It reflects the family values that voters themselves may hold. However, society expects the mother to bear the brunt of childcare, leading to the assumption that the female politician has too little time and energy for her family (Genovese, 1993). Thus, it appears that having a strong family support system would be necessary in order for a woman to take on the extremely demanding role of a political leader. It seems that women cannot win; they have children and are accused of failing to devote enough time to their families, or they are childless and are criticized for failing to fulfill their traditional role. These criticisms come from both men and other women. For example, during the Conservative Party leadership race in the United Kingdom in 2016, Andrea Leadsom suggested that she would be a better prime minister than Theresa May because Leadsom is a mother, which she believed gave her a stronger stake in the future and a stronger sense of empathy (Bulman, 2016). May was not being criticized on her experience or policy position, but rather on the extremely personal decision not to have children. In conclusion, there is significant literature on female leaders, specifically about the various barriers to the entry of female political leaders and about the traits of these leaders. However, there seems to be a gap regarding female leaders in democracies, which involves a path to power that is fundamentally different from the those in non-democracies.

Country-level hypotheses

The first part of this thesis will investigate the question of whether there are certain characteristics of democracies which increase the likelihood that a female executive will come into power. These hypotheses are focused on the country level, rather than the individual leader level. Each hypothesis will be evaluated using two dependent variables: the onset of female
leadership and the incidence of female leadership. It may be that certain variables influence whether a female leader is elected, while different variables influence her time in office.

**Hypothesis 1: Female leaders are more likely when the fertility rate is lower.**

A lower fertility rate suggests that women play a larger role outside of the household, rather than devoting their time to the private sphere. Lower fertility rates are also correlated with increased levels of female education (Kim, 2016), which would allow women to get the education necessary to enter political office and promote societies in which women are understood as intellectually equal to men.

**Hypothesis 2: Female leaders are more likely when female enrollment in secondary school is higher.**

This variable captures the proportion of female students enrolled in secondary education, compared to male students. Having a larger proportion of female secondary school students means that more women are being educated and given opportunities outside of the private sphere. Additionally, having equal numbers of male and female students entering secondary education could reduce bias; male students interact with their female peers and understand that they are academically equal. This measure of female education is used because it is a relative measure, rather than an absolute measure like mean years of schooling. This captures how female students get an education relative to their male peers, rather than how their education compares to female students in other countries.
Hypothesis 3: Female leaders are more likely the longer that women have had the right to vote. Suffrage is the most basic level of access to the political system. Thus, it can be assumed that after their initial entrance, women will gain more and more access to the political system as time goes on. In societies in which women have had the right to vote for a longer period, young women are taught that they are an important part of the political community, which could help address the supply side of the representation problem.

Hypothesis 4: Female leaders are less likely when the country is in conflict. In times of conflict, a country looks to a strong and dependable leader. One study found that older and masculine leaders are preferred during times of war (Spisak, 2012). War is traditionally a masculine practice; it is fought and directed primarily by men and involves stereotypically male traits, such as aggression or physical strength. Additionally, women are viewed as less competent in the fields of national security and defense (Lawless, 2004). Thus, it is hypothesized that voters would turn towards male leaders during times of conflict.

Hypothesis 5: Female leaders are less likely when the country has previously been in conflict. After conflict, the country may turn towards a strong, male leader to help them rebuild. Conflict is primary perceived through a male lens because soldiers and military leadership are overwhelmingly men; after conflict, this lens can persist (Handrahan, 2004). Voters may seek out leaders who experienced the conflict and who can alleviate societal feelings of insecurity. This could result in the election of male leaders, rather than female leaders.
Hypothesis 6: Female leaders are more likely when the position of head of government is a premiership.

Prime ministers have a smaller constituency than presidents. They are also answerable to the parliament, meaning that the position of prime minister is more constrained than that of a president. Also, they can be removed by both elections and votes of no confidence, meaning that a female prime minister is less of a “commitment” than a female president.

Hypothesis 7: Female leaders are more likely in dual systems.

Many countries have dual executives. For example, France has both a president (head of state) and a prime minister (head of government). In a dual system, the leader can be seen as having less power, which could make a country more comfortable with a female leader.

Hypothesis 8: Female leaders are less likely in unified presidential systems.

In a unified presidential system, the constituency of the executive is the entire country, meaning that a female candidate needs to overcome the bias of a larger set of voters. Presidents also have a significant amount of power and are less beholden to the legislature, making them less constrained than prime ministers.

Thus, these country-level hypotheses aim to examine what country-level characteristics increase the likelihood of the onset and incidence of female leaders.

Leader-level hypotheses

The second part of this thesis looks at the individual leader level, rather than the country level. This analysis investigates the question of whether there are major differences between
male and female leaders, as well as whether there are differences between the first female leader of a country and subsequent female leaders. Comparing first female to non-first female leaders would demonstrate whether there is a difference in how female leaders enter top office after the glass ceiling within a country is broken. These hypotheses are related to the characteristics of the female executives, as well as investigating whether certain mechanisms help women overcome bias and become executives. These mechanisms include previous experience and family ties.

*Hypothesis 9a: Female leaders are less likely to have children than male leaders.*

*Hypothesis 9b: First female leaders are more likely to have children than non-first female leaders.*

Female leaders are predicted to be less likely to have children; advancement in a demanding career is more difficult with family obligations and the expectations associated with motherhood. Women are expected to be the primary provider of childcare; this is especially true in countries with more traditional values. In contrast, men are expected to have a wife to take care of their children, giving them the flexibility to pursue more demanding careers. First female leaders are hypothesized to be more likely to have children than non-first female leaders because of the necessity of conforming to societal standards of womanhood. It could be that subsequent female leaders are less beholden to those standards.

*Hypothesis 10a: Female leaders are more likely to have lower level political experience than male leaders.*

*Hypothesis 10b: First female leaders are more likely to have lower level political experience than non-first female leaders.*
Lower level political experience is a chance for a female politician to show her political competence and gain the trust of the country and her constituents. Working their way through the ranks could be one method used by women to prove to party gatekeepers that she can obtain and maintain public support. Additionally, it could be that women feel the need to obtain more experience, as has been seen in the private sector. A study found that for traditional job applications, men will apply if they feel they meet 60% of the criteria, while women will not apply unless they feel they meet 100% (Mohr, 2014). This could be translated politically; women may be less likely to run for president or party leader if they have not worked their way up the hierarchy and had sufficient political experience. First female leaders are hypothesized to be more likely to have lower level political experience because of the necessity of breaking the glass ceiling in their country. Subsequent female leaders may have to face less bias, and thus, may not have to work their way up through the political hierarchy.

_Hypothesis 11a: Female leaders tend to have more years of political experience than male leaders prior to becoming head of government._

_Hypothesis 11b: First female leaders tend to have more years of political experience than non-first female leaders_

This variable analyzes whether women need to establish themselves in the political realm before entering top office. One mechanism of overcoming voter bias could be having significant and demonstrable experience in the political arena. Additionally, it is hypothesized that the first female head of government needs more political experience before taking office than subsequent female executives. Again, this is one way to overcome bias and prove that she has the skills to fulfill the duties of top political office.
**Hypothesis 12a:** Female leaders tend to have experience at more levels of government (local, state, federal) than male leaders.

**Hypothesis 12b:** First female leaders tend to have experience at more levels of government (local, state, federal) than non-first female leaders.

Analyzing the levels of political experience is similar to considering whether leaders have lower level political experience. These hypotheses are looking at whether women need to work their way through the ranks of the government before entering top office. This relates to understanding whether female leaders need to prove themselves to constituents and party gatekeepers prior to being in a position to enter top political office. First female leaders may need to prove to party gatekeepers that their nomination is not risky for the party; by having experience at several levels of government prior to entering top office, the leader demonstrates that she has the support of constituencies of varying sizes.

**Hypothesis 13:** Female leaders are more likely to have family ties.

Family ties are a different mechanism of gaining credibility in the eyes of a constituency. Having these ties endows a female leader with a reputation: that of her father, husband, or other close relation that came before her. These ties allow the constituency to trust the leader, even if she is unfamiliar to them. In societies with strong political gatekeepers, these ties may be a way to circumvent traditional party structures. A woman with family ties has the name recognition and trust that she may have otherwise obtained from political experience.
**Hypothesis 14: Female leaders are more likely to come to power when the Polity score is higher.**

A higher Polity score means that the country is closer to a full democracy; increased gender equality is closely related to democratization (Inglehart, Norris, & Welzel, 2002). Countries with high Polity scores are further down the path of democratization, and therefore, may be more likely to choose a female leader.

**Hypothesis 15: Female leaders are more likely to come to power when GDP per capita is higher.**

A higher GDP per capita indicates a more developed country. Furthermore, there is a correlation between GDP per capita and gender equality (World Economic Forum, 2015). This suggests that wealthier countries would be more likely to have a female leader.
Part 3: Empirical Analysis

Empirical Approach: Country-level

The first part of the data analysis focuses on the aspects of the countries where female leaders come into power. The unit of observation is the democratic country-year from 1960 to 2015. For the purpose of this analysis, a country is considered democratic if it had a Polity score greater than or equal to six in the year of the observation. In total, there were 3,336 democratic country-years.

The two dichotomous dependent variables being considered were the onset of female leaders and the incidence of female leaders. Each dependent variable will be tested with the hypotheses outlined in the previous section. The onset variable captures the conditions for a female leader to be elected; this limits the observations to years in which leaders entered power. There are 786 democratic country-years between 1960 and 2015 in which a new leader entered power or a previous leader was reelected. A female leader entered office in 52 of these country-years. The incidence variable captures a leader staying in power. This variable includes all observations and denotes whether there was a male or female leader in power at the time. Logistic regression was used to analyze each set of hypotheses.

Empirical Approach: Leader-level

The second part of the data analysis focuses on the individual experiences of leaders prior to entering power, specifically whether there is a difference between the experiences of male and female leaders. The unit of observation is the individual leader in democracies from 1960 to 2015. A country is considered democratic if it had a Polity score greater than or equal to 6 in the year in which the leader entered power.
In order to create a dataset to compare male and female leaders, the nearest neighbor matching technique was used. The original dataset contained 883 leaders (827 men and 56 women). Because the focus of this section is on the experience of leaders prior to entering top office, the first observation for each leader is used; subsequent observations were dropped. For example, Indira Gandhi entered power twice, once in 1966 and once in 1970. Only the 1966 observation is used. After dropping duplicate leaders, the dataset contained 765 leaders (718 men and 47 women). To create groups of equal size, male leaders were matched to female leaders based on the Polity score and the GDP per capita of their country in the year in which they entered office. Because the leaders were matched using Polity score, certain countries were excluded. Polity scores are only calculated for countries with populations exceeding 500,000; therefore, leaders from these countries were dropped (Gurr, Marshall, & Jaggers, 2016).

After matching, both groups had forty-seven leaders. Several countries, such as Iceland and the Bahamas, have had female leaders, but did not meet the Polity population threshold. Thus, these female leaders are not included in the analysis. Once the leaders were matched, two-sample t-tests for group means were used to compare the groups. First female leaders were also compared to non-first female leaders. There were 38 first female leaders and 9 non-first female leaders.

Overview of Variables: Country-level

Data for the country-level analysis was collected from various sources, including the Archigos dataset, the World Bank Development Indicators, and the Uppsala Conflict Data Program. The following independent variables were of interest:

- Descriptive variables:
  - Country name
- Gleditsch-Ward country code
- Year

- Dichotomous region variables for North America, Latin America and the Caribbean, Europe, Africa, Middle East, Asia, Oceania. Figure 5 displays the distribution of observations across each region; the largest number are in Europe.

![Democratic Country-Years](image)

*Figure 5*

- **Polity**: Polity score for the year being considered (Source: Polity IV). Observations with Polity scores greater than or equal to 6 are included in the dataset. 44.8% of the observations have a Polity score of 10, indicating full democracy.

- **GDP**: real GDP per capita, constant 2010 USD (Source: World Bank Development Indicators).

- **Government Type**: variable classifying the type of government, based on the executive.

The data is from “Women Rule: Shattering the Executive Glass Ceiling” (Jalalzai, 2008).
Figure 6 displays the distribution of country-years across the categories. The categories are:

- Unified presidential: an elected president who is not answerable to the legislature (ex. United States)
- Unified parliamentary: an appointed prime minister who is answerable to the legislature (ex. United Kingdom)
- Parliamentary-presidential dominant: power is shared between the prime minister and president, but the president is dominant (ex. South Korea)
- Parliamentary-presidential corrective: power is shared between the prime minister and president; the prime minister is more influential, but the president still has considerable power (ex. Croatia)
- Parliamentary with figurehead president: the prime minister is dominant; the president is very weak (ex. Italy)
• **Powerful president:** dichotomous variable coded as 1 if *Government Type* is classified as unified presidential. 31% of country-years have executives that are considered powerful presidents. Women are in power for 7.23% of the 1,038 country-years in which the executive is a powerful president. They are in power for 6.40% of the country-years in which the executive is not a powerful presidency.

• **Dual:** dichotomous variable; coded 1 if the leader is part of a dual executive, which is when the *Government Type* is classified as parliamentary-presidential dominant, parliamentary-presidential corrective, or parliamentary with figurehead president. 45% of country-years have executives that are considered dual. Female leaders are in power for 6.53% of the 1,500 country-years in which the executive is classified as a dual executive and 6.75% of the country-years in which the executive is a non-dual executive.

• **Prime minister:** dichotomous variable; coded 1 if the head of government is a prime minister (Source: UN Protocol Sheet). Approximately 68% of the observations are of prime ministers.

• **Female vote:** year in which women obtained the right to vote. Data obtained from “Women Rule: Shattering the Executive Glass Ceiling” (Jalalzai, 2008).

• **Female vote length:** years since women obtained the right to vote. This was calculated by subtracting the year in which women were granted the right to vote from the year being considered in the observation.

• **Female Enrollment in Secondary School:** percent of secondary school students who are female (Source: World Bank Development Indicators). Missing data points were interpolated.
- **Fertility rate**: average number of children per woman (Source: World Bank Development Indicators).

![Female Enrollment in Secondary School](image)

**Figure 7**

![Fertility Rate](image)

**Figure 8**
• **Conflict incidence:** dichotomous variable; coded 1 if there was an armed conflict in the country in the year being considered (Source: Uppsala Conflict Data Program). Armed conflict is defined as having more than twenty-five battle related deaths in a calendar year (Gleditsch et al., 2002). 12% of the country-years in the dataset are coded as being in conflict.

• **Conflict onset:** dichotomous variable; coded 1 if a conflict began in the year being considered (Source: UCDP). A conflict began in only 1.5% of the country-years in the dataset.

• **Past conflict:** dichotomous variable; coded 1 if the country has been in conflict in the past five years and missing if the country is currently in conflict (source: UCDP). There was past conflict in 6.5% of the country-years in the dataset.

Two dependent variables are being used to study female leaders. The first is *Onset of female leader possible*; this variable is intended to capture when and where female leaders come to power. This is a dichotomous variable, coded 1 if a female leader entered power in that year, 0 if a male leader entered office, and missing if no leader entered office. There was an election or re-election of a leader in 786 of the 3,336 country years; thus, this variable does not consider all possible observations. Women entered power 6.62% of the democratic country-years in this category. Figure 9 shows the general trend of an increase in the onset of female leaders over time.

The second dependent variable being considered is *Female leader incidence*, which is intended to capture when and where female leaders are in power, rather than where they are coming to power. This dichotomous variable is coded 1 if a female leader is in power during the
country-year being considered. Women were in power for 6.65% of the 3,336 country-years in the dataset. Again, as seen with the onset of female leaders, there is a general increase in the incidence of female leadership over time, as demonstrated by Figure 10.
Overview of Variables: Leader-level

In this section of the data analysis, data on individual leaders was collected from various biographical sources. Certain country-level indicators were also used. The following independent variables were of interest:

- Descriptive variables:
  - Country name
  - Leader name
  - Entrance year

- Dichotomous region variables for North America, Latin America and the Caribbean, Europe, Africa, Middle East, Asia, Oceania. Figure 11 displays the distribution of leaders across each region; the largest number of female leaders are in Europe, followed by Latin American and the Caribbean.

- **Female**: dichotomous variable; coded 1 if the leader is female.
• **Polity**: Polity score in the year the leader entered power.

• **GDP**: GDP per capita (real GDP per capita, constant 2010 USD) in the year the leader entered power (Source: World Bank Development Indicators).

• **Family ties**: dichotomous variable; coded 1 if the leader has family members who have been in power (Source: Archigos).

• **Total political experience**: years of political experience prior to the leader entering top political office. Relevant political experience includes any elected or appointed positions in the executive, judicial, or legislative areas. Figure 12 shows the distribution of political experience for the matched male and female leaders.

```
Figure 12
```

• **Local experience**: dichotomous variable; coded 1 if the leader had prior experience at the local level (city council, mayor, etc.). Figure 13 shows the distribution of local
experience by gender. In the matched groups, approximately the same proportion of male and female leaders had experience at the local level.

- *State experience*: dichotomous variable; coded 1 if the leader had prior experience at the state or provincial level. Figure 14 shows the distribution of state experience by gender. Like at the local level, approximately the same proportion of male and female leaders had experience at the state level.
• **Federal experience**: dichotomous variable; coded 1 if the leader had prior experience at the federal level. Figure 15 shows the distribution by gender; the majority of each group had prior federal experience.

![Federal Experience](image)

*Figure 15*

• **Lower level experience**: dichotomous variable; coded 1 if the leader had prior experience at the state or local level. This variable takes into consideration that some systems lack a state level of government. Figure 16 shows the distribution by gender; approximately the same proportion of each group had lower level political experience.
• **Levels of experience:** a composite variable based on local, state, and federal experience. The variable ranges from 0 (no government experience) to 3 (experience at all three levels of government). Figure 17 shows the distribution by gender.

![Graphs by Female Lower Level Political Experience](image)

**Figure 16**

• **First female:** dichotomous variable; coded 1 if the leader is the first female leader of the state, 0 if she is not, and missing if the leader is male. 81% of female leaders in the dataset are first female leaders.

![Graphs by Female Levels of Political Experience](image)

**Figure 17**
• **Children**: dichotomous variable; coded 1 if the leader had children. Figure 18 shows the distribution by gender. Approximately 75% of the female leaders had children, compared to 90% of the male leaders.

![Pie Chart: Children](image)

*Figure 18*

**Results: Country-level**

In this portion of the empirical analysis, two dependent variables were considered: the onset of female leaders and the incidence of female leaders. Logistic regression was used to analyze the data; two models were created for each dependent variable. Models 1 and 3 include the independent variables; Models 2 and 4 adds GDP and region controls. For the regional controls, Europe is excluded as used as the baseline. Table 1 shows the two logistic regression models for the onset of female leaders.
### Table 1

**Female Leadership: Onset**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertility Rate</td>
<td>0.120</td>
<td>0.099</td>
</tr>
<tr>
<td></td>
<td>(0.68)</td>
<td>(0.47)</td>
</tr>
<tr>
<td>Female Enrollment in Secondary School</td>
<td>0.002</td>
<td>-0.012</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.57)</td>
</tr>
<tr>
<td>Female Vote Length</td>
<td>0.034</td>
<td>0.032</td>
</tr>
<tr>
<td></td>
<td>(3.49)**</td>
<td>(2.66)**</td>
</tr>
<tr>
<td>Conflict: Past</td>
<td>0.059</td>
<td>-0.197</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Prime Minister</td>
<td>1.799</td>
<td>2.073</td>
</tr>
<tr>
<td></td>
<td>(2.32)*</td>
<td>(1.74)</td>
</tr>
<tr>
<td>Dual Pres/PM</td>
<td>-0.000</td>
<td>0.829</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(1.27)</td>
</tr>
<tr>
<td>Powerful President</td>
<td>1.840</td>
<td>1.823</td>
</tr>
<tr>
<td></td>
<td>(2.34)*</td>
<td>(1.98)*</td>
</tr>
<tr>
<td>Real GDP per capita, constant 2010 USD</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>(1.79)</td>
<td>(1.79)</td>
</tr>
<tr>
<td>North America</td>
<td>0.786</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>(0.69)</td>
<td>(0.69)</td>
</tr>
<tr>
<td>Africa</td>
<td>1.176</td>
<td>1.08</td>
</tr>
<tr>
<td></td>
<td>(1.08)</td>
<td>(1.08)</td>
</tr>
<tr>
<td>Asia</td>
<td>1.350</td>
<td>(2.11)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oceania</td>
<td>0.885</td>
<td>0.98</td>
</tr>
<tr>
<td></td>
<td>(0.98)</td>
<td>(0.98)</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>1.902</td>
<td>1.902</td>
</tr>
<tr>
<td></td>
<td>(2.44)*</td>
<td>(2.44)*</td>
</tr>
<tr>
<td>Constant</td>
<td>-7.099</td>
<td>-8.062</td>
</tr>
<tr>
<td></td>
<td>(2.95)**</td>
<td>(3.97)**</td>
</tr>
<tr>
<td>N</td>
<td>648</td>
<td>603</td>
</tr>
</tbody>
</table>

* p<0.05; ** p<0.01

In Model 1 (without controls), female vote length was significant and positive at p<0.01, while prime minister and powerful president were significant and positive at p<0.05. In Model 2 (with controls) prime minister lost significance, female vote length stayed significant at p<0.01, and powerful president stayed significant at p<0.05. Of the controls, Latin America and the Caribbean and Asia were positive and significant at p<0.05, suggesting that the onset of female leaders is more likely in these regions compared to the baseline region of Europe. Fertility rate,
female entrance to secondary school, current conflict, past conflict, and dual executive were not significant in either of the models, so there was not support for Hypotheses 1, 2, 4, 5, or 7.

Female vote length is positive and significant with and without controls. This suggests that female executives are more likely the longer that women have had the right to vote, which supports Hypothesis 3. Figure 19 shows the margins for values of female vote length between 10 years and 50 years, with all other variables being held at their means. The effect of vote length on the probability of the onset of a female leader becomes significant after 25 years. At 25 years, the likelihood of the onset of a female leader is 1.89%; when female vote length increases to 50 years, the likelihood of the onset of a female leader increases to 4.07%. It is interesting that the effect of female vote length is only significant after 25 years; perhaps this amount of time allows the norms of female inclusion in governance to establish themselves. Twenty-five years is approximately one generation; this suggests that it takes about one generation for vote length to have an effect on the onset of female leaders. After these twenty-five years of suffrage have passed, the impact of vote length on the onset of female leadership becomes significant and continues to increase as time passes.
Prime minister is significant without controls, but loses significance when controls are added. Thus, Hypothesis 6 is not supported, presenting an interesting deviation from the literature. Finally, powerful president is positive and significant with and without controls, suggesting that female heads of government are more likely when the position is a powerful presidency. This is the opposite as predicted by Hypothesis 8. Additionally, this effect is substantial; if all other variables are held at their means, there is a 13.7% likelihood of a female leader when the position is a powerful presidency. If it is not, the likelihood of a female leader drops to 2.5%. Thus, the onset of female leadership in democracy is positively impacted by the length of time women have had the right to vote and whether the position is a powerful presidency.

Table 2 displays the two logistic regression models for the incidence of female leadership.
In Model 3, female vote length, past conflict, prime minister, and powerful president are significant at p<0.01. When controls are added, female enrollment in secondary school gains significance at p<0.05, prime minister loses significance, and dual executive gains significance. Of the controls, Asia, Oceania, and Latin America and the Caribbean are significant and positive at p<0.01, showing that female leaders are more likely in these regions than in the baseline region of Europe. GDP per capita is also significant when added as a control. As shown in Figure 20, the likelihood of the incidence of a female leader when the GDP per capita is $5,000 is 2.4%.

Table 2

<table>
<thead>
<tr>
<th>Female Leadership: Incidence</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertility Rate</td>
<td>0.043</td>
<td>0.102</td>
</tr>
<tr>
<td></td>
<td>(0.58)</td>
<td>(1.08)</td>
</tr>
<tr>
<td>Female Enrollment in Secondary School</td>
<td>-0.011</td>
<td>-0.018</td>
</tr>
<tr>
<td></td>
<td>(1.26)</td>
<td>(2.19)*</td>
</tr>
<tr>
<td>Female Vote Length</td>
<td>0.031</td>
<td>0.029</td>
</tr>
<tr>
<td></td>
<td>(6.54)**</td>
<td>(5.34)**</td>
</tr>
<tr>
<td>Conflict: Past</td>
<td>1.161</td>
<td>1.050</td>
</tr>
<tr>
<td></td>
<td>(4.40)**</td>
<td>(3.78)**</td>
</tr>
<tr>
<td>Prime Minister</td>
<td>1.532</td>
<td>0.939</td>
</tr>
<tr>
<td></td>
<td>(3.08)**</td>
<td>(1.51)</td>
</tr>
<tr>
<td>Dual Pres/PM</td>
<td>0.355</td>
<td>1.339</td>
</tr>
<tr>
<td></td>
<td>(1.61)</td>
<td>(3.82)**</td>
</tr>
<tr>
<td>Powerful President</td>
<td>2.165</td>
<td>2.310</td>
</tr>
<tr>
<td></td>
<td>(4.14)**</td>
<td>(4.25)**</td>
</tr>
<tr>
<td>Real GDP per capita, constant 2010 USD</td>
<td>0.000</td>
<td>(5.03)**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td>-1.407</td>
<td>(1.36)</td>
</tr>
<tr>
<td>Africa</td>
<td>0.408</td>
<td>(0.81)</td>
</tr>
<tr>
<td>Asia</td>
<td>2.378</td>
<td>(7.70)**</td>
</tr>
<tr>
<td>Oceania</td>
<td>1.458</td>
<td>(3.28)**</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>1.464</td>
<td>(3.89)**</td>
</tr>
<tr>
<td>Constant</td>
<td>-6.211</td>
<td>-7.503</td>
</tr>
<tr>
<td></td>
<td>(6.89)**</td>
<td>(7.89)**</td>
</tr>
<tr>
<td>N</td>
<td>2,737</td>
<td>2,628</td>
</tr>
</tbody>
</table>

* p<0.05; ** p<0.01

*
When GDP increases to $65,000, the likelihood increases to 16.7%. This demonstrates that wealthier democracies are more likely to have a female leader in power. It is interesting to note that GDP per capita is not significant in the onset model.

Because fertility rate and current conflict were not significant in either of the models, Hypotheses 1 and 4 are not supported. Female enrollment in secondary school is significant and negative when controls are added, suggesting that the higher female enrollment in secondary education, the less likely the incidence of female leaders. This is the opposite as predicted in Hypothesis 2. Figure 21 shows that when all other variables are held at their means and female enrollment in secondary school is at 20%, the likelihood of the incidence of female leadership is 6.3%. When female enrollment rises to 50%, the likelihood drops to 4.6%. It seems counter-intuitive that female leaders are less likely in countries where there is relative parity in secondary education enrollment. This could indicate that the women who enter power in countries with
lower gender equality are part of the elite, which allows them to enter power without being negatively impacted by the status of women in their country.

Like in the models for the onset of female leaders, female vote length is significant and positive with and without controls. The longer women have had the right to vote, the more likely a female executive will be in power. This is consistent with Hypothesis 3. Figure 22 shows the margins for values of female vote length between 10 years and 50 years, with all other variables being held at their means. When female vote length is 10 years, the likelihood of the onset of a female leader is 1.25%; when female vote length increases to 50 years, the likelihood of the onset of a female leader increases to 4.11%. The effect of female vote length is slightly larger for the incidence of female leadership than for onset; the margins for a vote length of 50 years on female leader onset is 4.08%, compared to 4.11% on female leader incidence.
Past conflict is also positive and significant with and without controls. This suggests that if there was a conflict in the country in the last five years, the country is more likely to have a female leader. This is the opposite as predicted in Hypothesis 5. When there was recent conflict, there is a 12.7% likelihood of incidence of female leadership; when there was not recent conflict, the likelihood drops to 4.4%.

Prime minister is significant and positive without controls, but loses significance when controls are added. This is the same pattern observed in the onset models. Thus, Hypothesis 6 is not supported. Dual executive is significant and positive when controls are added, suggesting that a female head of government is more likely when the position is part of a dual executive. This supports Hypothesis 7. If all other variables are held at their means, the likelihood of the incidence of a female leader if the position is part of a dual executive is 5.7%. This likelihood drops to 4.1% if the position is a unified presidency or unified premiership.
Finally, powerful president is significant and positive with and without controls, meaning that a female leader is more likely if the position is a powerful presidency. When the position is a powerful presidency, the likelihood of the incidence of a female leader is 17.7%. When it is not, the likelihood drops to 2.4%. This means that the powerful presidency position has a stronger effect on the incidence of female leadership than the onset. Like the findings from the analysis of female leader onset, this is the opposite as predicted in Hypothesis 8. Thus, the incidence of female leadership is positively influenced by the length of time women have had the right to vote, when there is past conflict, when the position is a dual executive, and when the position is a powerful presidency. It is negatively influenced by female enrollment in secondary education. Table 3 summarizes the findings for each hypothesis across the two dependent variables, focusing on the models that include controls.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Female Leader Onset</th>
<th>Female Leader Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Fertility rate</td>
<td>Not significant</td>
<td>Not significant</td>
</tr>
<tr>
<td>H2: Female enrollment in secondary education</td>
<td>Not significant</td>
<td>Negative and significant</td>
</tr>
<tr>
<td>H3: Female vote length</td>
<td>Positive and significant</td>
<td>Positive and significant</td>
</tr>
<tr>
<td>H4: Current conflict</td>
<td>Not significant</td>
<td>Not significant</td>
</tr>
<tr>
<td>H5: Past conflict</td>
<td>Not significant</td>
<td>Positive and significant</td>
</tr>
<tr>
<td>H6: Prime minister</td>
<td>Not significant</td>
<td>Not significant</td>
</tr>
<tr>
<td>H7: Dual executive</td>
<td>Not significant</td>
<td>Positive and significant</td>
</tr>
<tr>
<td>H8: Powerful president</td>
<td>Positive and significant</td>
<td>Positive and significant</td>
</tr>
</tbody>
</table>

**Results: Leader-level**

In this portion of the empirical analysis, male and female leaders were compared using two-sample t-tests for group means. Two groups, each containing 47 leaders, were created by matching all female leaders from 1960 to 2015 with similar male leaders using the best neighbor method. The leaders were matched based on GDP per capita and Polity score in the year they
entered power. Additionally, female leaders who were the first female head of government were also compared to female leaders who were not the first. There was a total of 38 first female leaders and 9 non-first female leaders. Table 4 shows the results of the two-sample t-tests for group means, while Table 5 shows the results comparing first female leaders and non-first females. Table 6 displays the analysis of the unmatched data using two-sample t-tests for group means. This analysis allowed the variables used to match the leaders (GDP and Polity) to be compared.

Table 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>Female Average</th>
<th>Male Average</th>
<th>Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political experience</td>
<td>11.55</td>
<td>14.44</td>
<td>No</td>
</tr>
<tr>
<td>Lower level political experience</td>
<td>0.32</td>
<td>0.32</td>
<td>No</td>
</tr>
<tr>
<td>Children</td>
<td>0.74</td>
<td>0.89</td>
<td>Yes (at p&lt;0.10)</td>
</tr>
<tr>
<td>Levels of political experience</td>
<td>1.30</td>
<td>1.36</td>
<td>No</td>
</tr>
<tr>
<td>Family ties</td>
<td>0.21</td>
<td>0.06</td>
<td>Yes (at p&lt;0.05)</td>
</tr>
</tbody>
</table>

Table 5

<table>
<thead>
<tr>
<th>Variable</th>
<th>First Female Average</th>
<th>Non-first Female Average</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political experience</td>
<td>9.92</td>
<td>18.44</td>
<td>Yes (p&lt;0.01)</td>
</tr>
<tr>
<td>Lower level political experience</td>
<td>0.26</td>
<td>0.55</td>
<td>Yes (p&lt;0.10)</td>
</tr>
<tr>
<td>Children</td>
<td>0.76</td>
<td>0.66</td>
<td>No</td>
</tr>
<tr>
<td>Levels of political experience</td>
<td>1.18</td>
<td>1.78</td>
<td>Yes (at p&lt;0.05)</td>
</tr>
<tr>
<td>Family ties</td>
<td>0.21</td>
<td>0.22</td>
<td>No</td>
</tr>
</tbody>
</table>
Table 6

<table>
<thead>
<tr>
<th>Variable</th>
<th>Female average</th>
<th>Male average</th>
<th>Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita</td>
<td>$22,863.87</td>
<td>$15,337.09</td>
<td>Yes (at p&lt;0.01)</td>
</tr>
<tr>
<td>Polity</td>
<td>8.68</td>
<td>8.63</td>
<td>No</td>
</tr>
</tbody>
</table>

Hypothesis 9a is supported; female leaders are less likely than male leaders to have children, with significance at the p<0.10 level. However, Hypothesis 9b is not supported. There is no significant difference between first female and non-first female leaders in terms of having children. Hypotheses 10a and 10b are not supported. There is no significant difference in lower level political experience between men and women or between first female and non-first female leaders. Hypotheses 11a is also not supported. There is no significant difference in the years of political experience between men and women. However, Hypothesis 11b is supported in the opposite direction as predicted. First female leaders had significantly less experience than non-first females, an average of 9.92 years compared to 18.44 years. When the data is examined more closely, it reveals that no non-first female leader had less than seven years of prior political experience. In contrast, 13% of the first female leaders had no prior political experience. The non-first female leader sample size is relatively small, but this is nonetheless an interesting finding.

Hypotheses 12a is not supported. There is no significant difference between male and female leaders regarding levels of previous political experience. Hypothesis 12b is supported in the opposite direction as expected, gaining significance at the p<0.05 level. First female leaders tended to have fewer levels of prior political experience than non-first females (1.18 vs. 1.78). Again, 13% of first female leaders come to power without prior political experience, while all non-first female leaders have some experience before entering to political office.
Hypothesis 13 is supported; women are significantly more likely to come to power with family ties (0.21 vs. 0.06 for men). However, when looking more closely, it appears that this effect is largely driven by Asia. For all the other regions, the difference between male and female leaders regarding family ties is not significant. Hypothesis 14 is not supported; there is no significant difference in the Polity scores of the countries in the year women came into power.

Finally, Hypothesis 15 is supported; the countries in which women come to power tend to have higher GDP per capita. The average GDP per capita for the countries where women came to power is $22,863.87, compared to $15,337.09 for men. This indicates that women are more likely to be leaders in countries with higher levels of economic development.

Case Studies

The quantitative data analysis suggested that certain countries were more likely to have female leaders and that these female leaders had few characteristics that were significantly different from similar male leaders. However, it is important to consider these quantitative findings qualitatively in order to better understand the context in which female leaders may or may not rise to power. The quantitative analysis focused primarily on the factors that could influence how voters saw the leader and her position; this public opinion is key to the election of leaders in democratic states. Voters are one form of political gatekeepers; however, there are other gatekeepers embedded in the party or political structures of a country. The following case studies compare two countries: the United Kingdom, which elected Margaret Thatcher in 1979 and Theresa May in 2016, and the United States, which has never elected a female leader. The structural aspects of the country will be evaluated, including the previously neglected political party gatekeepers. The two British female leaders will also be compared to the male leaders
elected in the same year in the United States. The prior experience and leadership style of each leader will be described, as will their impact on policy.

The United States and the United Kingdom are very similar socially; they share a language and many values due to their close relationship and colonial heritage. In the 2005-2009 wave of the World Values Survey, which is the most recent wave to include both the United States and the United Kingdom, the countries were found to have very similar attitudes towards female leaders. When asked whether men make better political leaders, 72.3% of Brits and 73.8% of Americans responded “disagree” or “strongly disagree.” This suggests that voters in the two countries have similar views about women and political leadership. Both countries have Polity scores of 10 and a long history of democracy; women gained the right to vote in 1918 in the UK and in 1920 in the US. Finally, the countries are both strong economies with relatively equal GDP per capita values; in 2015, the GDP per capita of the United States was $51,638.10, while the UK’s was $41,182.60.

The major political difference between the two countries is the type of government. The United States is a unified presidency, with the American president serving as both the head of state and head of government. The United Kingdom is a unified parliamentary system with a constitutional monarchy; the monarch is the head of state, while the prime minister is the head of government and effective ruler. Neither of the systems would be considered a dual executive according to the coding used in this dataset. According to the quantitative analysis, the United States should be slightly more likely to elect a female leader because the position is a unified presidency.

However, the United States has never elected a female president; former Secretary of State Hillary Clinton did win the popular vote in the 2016 election, but lost to current President
Trump. In contrast, the United Kingdom has had two female prime ministers: Margaret Thatcher and Theresa May. Margaret Thatcher was elected the first female prime minister of the UK in 1979; she served in this role until resigning in 1990, making her the longest serving British prime minister since 1827 (Young, 2017). Before entering politics, she attended Oxford University and became a research chemist, then a lawyer. From 1959 to 1979, she served as the Member of Parliament for Finchley, a London constituency that was considered a safe seat for the Conservative Party. Before winning in Finchley, Thatcher lost twice in Dartford, a safe Labour seat. This sequence of events demonstrates the importance of political gatekeepers and their interaction with female candidates. Thatcher ran twice in a risky constituency for the Conservative Party; she was unlikely to win because Dartford was solidly Labour. This is consistent with psychology studies, which have found that women are more likely to be chosen to contest risky seats, while men were much more likely to be chosen to contest safe seats (Ryan, Haslam, & Kulich, 2010). Thatcher, as a young woman, was expendable to the Conservative Party; they needed a less valued candidate to contest the risky Dartford seat. However, Thatcher proved her worth in those two elections; she was then able to run for a safe Conservative seat and enter the House of Commons.

Thatcher faced political gatekeepers, which play a significant role in the politics of the United Kingdom. The traditional route to power in the country is to obtain a seat in the House of Commons and keep it for a long period of time. However, getting that seat is restricted; there are no primary elections, so local party officials regulate who runs for each constituency (Rasmussen, 1981). To get the attention and approval of party officials, candidates must take the initiative and contact the party via the national headquarters for local office. In Thatcher’s time, women would not have been actively recruited. If the female candidate is selected to be a
candidate, it is usually for a constituency where men are not interested, meaning, a constituency in which a candidate of her party is very unlikely to win (Rasmussen, 1981). Thus, the political elite in the UK is exclusive, and entering that elite requires pleasing local party officials, who are most likely to be men. Thatcher’s persistence paid off; after running in two general elections and one by-election for safe Labour seats, she was able to run for and win a Conservative seat.

She was chosen as the leader of the Conservative Party in 1975 after her predecessor lost two consecutive general elections for the party. Thatcher was relatively low in the hierarchy of the party, but was supported by a right-wing faction; she was the only challenger to the former party leader and became prime minister in 1979 after leading the Conservative Party to a majority. She came to power campaigning on the privatization of state owned enterprises, reductions in spending on social services, and restricting trade unions (Young, 2017).

Thatcher’s leadership can be described as masculine; she was a fighter filled with determination and complete certainty in her ideology. Unlike stereotypes would suggest, she did not promote a government based on compromise or openness; instead, she rejected consensus politics (Kaiser & Kaplan, 2013). Furthermore, she did not work to advance women within her government; during her eleven years in power, she appointed only one women to the cabinet (Lakhani, 2013). She went against feminine leadership stereotypes, especially in areas of national security, projecting strength and toughness. She was especially aggressive in the Falklands War and the 1990 Gulf War (Kaarbo & Hermann, 1998). She was not afraid to dominate meetings, to make her opinions heard, and to interrupt those she disagreed with. These traits reinforced her reputation as the “Iron Lady”, a nickname coined by a Soviet newspaper in 1976 after she was chosen as the leader of the Conservative Party; Thatcher embraced the name and the toughness it conveyed (Fisher, 2013).
Theresa May was the second female prime minister of the United Kingdom. May was elected in 2016; as such, she was not included in the leader-level analysis, which focused on the time period between 1960 and 2015. May served as a Member of Parliament for Maidenhead for nineteen years before becoming prime minister; she also served as a local councilor from 1986 to 1994 (Stamp, 2016). Immediately before becoming prime minister, she was David Cameron’s Home Secretary, serving from 2010 until becoming prime minister in 2016.

Unlike most party leaders, May was unelected. After Cameron’s resignation, several major figures in the Conservative Party entered the leadership race, including Boris Johnson, Michael Gove, Andrea Leadsom, and Theresa May. May campaigned on Brexit, the reason her predecessor had resigned. Her position on the controversial referendum was that “Brexit means Brexit, and we’re going to make a success of it” (McSmith, 2016). Normally in a leadership contest, MPs would vote for their preferred candidate until only two remain; then, the members of the Conservative Party across the UK would vote (Wilkinson, 2016). The first part of this process eliminated several candidates, including Gove and Fox. Later, Johnson and Leadsom dropped out of the race, leaving only May. May was elected by her district of Maidenhead, but she was unelected by the Conservative Party as a whole.

One fascinating aspect of her election was that her last remaining challenger was Andrea Leadsom, another woman. Leadsom styled herself as a feminine candidate; she repeatedly highlighted the fact that she is a mother of three, in contrast to the childless May (Bulman, 2016). Leadsom even suggested that she was more suited for leadership because of her children and the stake they gave her in the future of the country. This contest between two women of the same party presents an interesting case. It seems that female stereotypes still arise even when both
candidates are women. May’s strategy during the leadership election was to focus on promoting her experience and success during her long tenure as Home Secretary.

May’s leadership style can be described as understated. She is calm, intelligent, and tenacious. She is not afraid to challenge established institutions or to wait out flashy opponents (Allen, 2016). These characteristics made her an appealing leader to negotiate Britain’s withdrawal from the European Union. She even warned Jean-Claude Juncker, president of the European Commission, that she would be a “bloody difficult woman” during Brexit negotiations (Swinford, 2017). Like Thatcher, May is far from the soft, feminine leader that a female stereotype might predict. Unlike Thatcher, May has been an inclusive leader; seven of her cabinet ministers are women, and these women hold important portfolios (Ridge, 2016). In addition, she has worked in other ways to promote the inclusion of women in government. For example, she co-founded Women2Win, which seeks to increase the number of Conservative women in parliament (Allen, 2016).

Thatcher and May can be evaluated in terms of the characteristics examined during the quantitative leader analysis. Both women were very qualified politicians, serving approximately twenty years each in Parliament before entering top office. However, all of Thatcher’s experience was at the federal level. May had a greater amount of experience, a total of 27 years in local and federal office. This is consistent with the findings from the quantitative analysis. Finally, neither of the women had family ties to power and only Thatcher had children. These family ties are far less common in Europe than Asia and Latin America, again making the observations consistent with the findings of the quantitative analysis.

In contrast to the two female leaders chosen by the UK, the US has never had a female president. Neither country has a dual executive; the US has a unified presidency, while the UK
has a unified parliamentary system. The findings in the data analysis suggest that the unified presidency should increase the likelihood of a female leader. Because of the primary system, political gatekeepers play a different role in the United States than in the UK. They control who is nominated; most primary candidates need support from the gatekeepers in order to access adequate campaign funds, volunteers, and endorsements (Conway, 2001). These gatekeepers also tend to be men. Furthermore, like in the UK, women are less likely to be recruited to run as candidates (Fox & Lawless, 2010). This lack of recruitment reduces political ambition and subsequently, the likelihood that women will run for public office.

Furthermore, the presidential system of the United States means that candidates have a more varied route to power. In the UK, the established path to the premiership is to win a seat in Parliament and hold onto it; because the prime minister must be a MP, being involved at the federal level is a prerequisite of the position. In contrast, the American president can have experience at other levels of government, or no political experience at all. For example, President George W. Bush was the governor of Texas, President Nixon was a congressman and former vice president, and President Trump had no prior political experience.

The men elected to the American presidency at the same time as Thatcher and May can be compared to the female leaders. Ronald Reagan was elected in 1980; he had previously served eight years as the governor of California (Cannon, 2017). Compared to Thatcher, he was less experienced, although he did have lower level political experience. He had children and did not have family ties to power, which is consistent with the findings in the quantitative analysis. Reagan’s leadership style involved confidence and certainty, two characteristics often considered agentic, and thus, masculine (Pfiffner, 2013).
Donald Trump was elected in 2016, the same year that Theresa May entered power. Unlike any of the aforementioned leaders, Trump has no prior political experience. He has no ties to power and has several children. Trump’s leadership style can be described as confrontational; he presented himself as a political outsider who would change Washington for the better. Both Reagan and Trump campaigned against big government and for a strong American stance on terrorism (Pfiffner, 2013). Trump’s confrontation style and aggressive policy stances can be described as masculine.

Thus, the US and the UK can be compared because they have many shared characteristics. However, only the UK has had female leaders. These two cases are an interesting way to consider additional factors that affect the election of female candidates, including the role of political party gatekeepers and the leadership style of the candidate. Studying these qualitative cases allows better understanding of the context in which female leaders may or may not rise to power.
Part 4: Discussion

Discussion: Country-level

The empirical analysis showed that the likelihood of a female executive is increased in countries where women have had the right to vote for a longer period of time and where the executive is a unified presidency. However, the models in which the incidence of female leaders were analyzed were significantly different. These suggested that a female head of government is more likely to be in power when women have had the right to vote for longer period of time, when the country has been in recent conflict, when the position is a unified presidency, when the position is part of a dual executive, and when female enrollment in secondary school is lower. The difference between these two dependent variables is thought-provoking. It suggests that certain variables matter more for a female leader remaining in power, while certain variables matter more for her entrance to power. One of the more interesting differences is the significance of a dual executive for incidence, but not onset. This is a structural factor of the democracy, but apparently, one that matters more for keeping a female leader in power rather than getting her into power.

Just as interesting as the significant variables are those that did not obtain significance, or that lost significance when GDP and regional controls were added. Fertility rate, current conflict, and the position of prime minister failed to obtain significance in any of the models with controls. The fertility rate result is consistent with findings about female legislators. Oakes & Almquist (1993) found that lower fertility rates did not increase the likelihood of women in national legislatures. It appears that this may also apply to women in the executive. The impact of fertility rate, which is often used as a proxy for female involvement outside of the private sphere, could also be mitigated by the fact that many female leaders in developing countries are from elite families. These families can afford a high-quality education for their daughters, who
are not nearly as constrained by expectations of marrying and having children or working in labor intensive jobs. For example, Benazir Bhutto, the first female prime minister of Pakistan, attended Harvard University and Oxford University; Gloria Macapagal Arroyo, the former president of the Philippines, went to Georgetown University (“Benazir Bhutto”, 2017; “Gloria Macapagal Arroyo”, 2015). Thus, the type of women who are more likely to rise to top political office are those who would be less affected by gender expectations in their home country.

Current conflict was not significant, suggesting that female leaders are no more or less likely in times of war. This is an interesting deviation from the literature, which holds that female leaders are viewed as less competent in the fields of national security and defense, and would suggest that countries would prefer male leaders in times of conflict. It is important to note that both female leaders and conflict incidence are relatively rare phenomena. Perhaps when the set of female leaders has expanded, better conclusions can be drawn about their relationship to ruling during conflict.

Prime minister was one of the most interesting variables that failed to obtain significance. Before controlling for GDP and region, the variable was positive and significant, which is consistent with the hypothesis and the literature. After adding controls, it lost significance. Most literature finds that women are more likely to come to power when the position is a premiership due to the more constrained nature of the position and the smaller electorate. This deviation could stem from the fact that the Archigos dataset considers the effective leader of a country; in many systems with dual executives, this is the president. For example, Edith Cresson was the prime minister of France from 1991-1992 and Kazimira Prunskienė was prime minister of Lithuania from 1990 to 1991. However, neither leader was included in the analysis because the Archigos dataset designed the French and Lithuanian presidents as the effective leaders. Thus,
the use of a Archigos dataset could explain the deviation from literature because a different set of female leaders is being considered.

Of the variables that were significant, several were significant in the opposite direction as expected. For both onset and incidence, female leaders were more likely when the executive position was a unified presidency. The effect was large; for onset, the likelihood of a female leader in a unified presidential executive was 13.7%, when all other variables were held at their means. This is compared to 2.5% when the position is not a unified presidency. For incidence, the effect was 17.7%, compared to 2.4% when the position was not a unified presidency. This is the opposite as the hypothesis, which predicted that female leaders were less likely in systems where the executive is a unified presidency. This finding has positive implications for female leadership and suggests that women are holding more powerful positions than previously expected.

Female vote length was significant in the expected direction; a female executive is more likely the longer that women have had the right to vote. The effect was slightly larger for incidence of leadership. Interestingly, the effect was significant only after 25 years for the onset of female leadership. Twenty-five years is approximately one generation, which could be the length of time necessary to affect change in the political socialization of the country. Women who were children when their gender was granted suffrage grew up to elect and become female legislators and executives. Change in the way a society perceives who can and cannot be effective politicians takes time. This is key not only for female political socialization, but also for male socialization. Men were the political gatekeepers prior to women’s suffrage and, for the most part, continue to play this role post-suffrage. Thus, men needed to be socialized to accept women as potential candidates and to vote for these women. The fact that vote length has a
positive and significant effect on the onset and incidence of female leadership is encouraging. As each year passes, these findings suggest that more and more women should be elected into top political office.

For female leader incidence, past conflict was positive and significant, suggesting that female leaders are more likely when there has been a recent conflict. This is the opposite of the hypothesis, which predicted that female leaders were less likely when there was conflict. However, this phenomenon could be explained by the idea of women as peacemakers. The gendered stereotypes of agentic male characteristics and communal female characteristics could be beneficial in post-conflict states. At this point, it is time for the country to rebuild, to reach compromises, and to build consensus. Perhaps female leaders are ideal for this role. UN Secretary General Kofi Annan stated that “for generations, women have served as peace educators, both in their families and in societies” (Hunt & Posa, 2001). It makes sense to extend this role of nurturer and peace-maker to the highest political position.

Having a dual executive was significant in the expected direction for female leader incidence. This supports the initial predictions that voters would be more comfortable electing a woman to a constrained position. Finally, female enrollment in secondary education was significant in the opposite direction as predicted for female leader incidence. The data suggests that female leaders are more likely in countries with lower female enrollment in secondary education. This is consistent with some literature, which has found that female executives often emerge in countries where women’s economic and educational status lags behind men (Jalalzai & Krook, 2010). Additionally, as Jalalzai (2008) found, female executives tend to have elite backgrounds, allowing them to access levels and quality of education that may be inaccessible to others in their country. The general state of gender equality may be less important to predicting
the rise of these women, especially if they have family ties to power and are viewed in some ways as extensions of their fathers or husbands.

Finally, two regions (Latin America and the Caribbean and Asia) were significant for both onset and incidence. Female leaders were more likely in these areas than in the baseline region of Europe. In general, Europe and the Western democracies are viewed the most advanced in terms of democracy and gender equality. However, these findings show that less developed regions are making strides towards the equal access of political power for men and women. It is also interesting to consider whether female leadership is spatially clustered. Figures 23 and 24 demonstrate the clustering of female executives between 1960 and 2015.

**Onset of Female Leaders: Cluster Analysis**

*Figure 23*
Incidence of Female Leaders: Cluster Analysis

Using the Univariate Local Moran’s I statistic reveals that there is one significant cluster for the onset of female leaders, located in Germany, Austria, and Switzerland. Analyzing the spatial distribution of the incidence of female leaders reveals three clusters. Two are in Western Europe and one is in Southwest Asia and includes India, Bangladesh, and Pakistan.

Discussion: Leader-level

The empirical analysis at the individual leader level revealed fewer differences between male and female leaders than predicted. The only significant differences were the number of children, the likelihood of family ties, and the country’s GDP per capita. From this data analysis, a female leader would be most likely to come to power if she did not have children, if she did have family ties, and if her country had a moderately high GDP per capita.

Interestingly, there were no significant differences between male and female leaders in terms of years of political experience; both groups averaged between 11 to 15 years. This prior political experience was proposed as a potential mechanism for overcoming the bias of the electorate; it was predicted that a woman who had substantial relevant experience would be
viewed as a more competent leader. However, it appears that women are not judged more harshly than their male counterparts in terms of experience. Female leaders do not need to have more experience or experience at multiple levels of government to come into power.

Another predicted mechanism for gaining the trust and counteracting the bias of voters was family ties; the data analysis revealed that women are significantly more likely to have family ties than men. Like previously mentioned, that effect is largely driven by Asian leaders. In order to determine whether family ties can substitute for experience, a two-sample t-test was run on the female leaders, comparing those with family ties to those without. The difference between the groups was significant; female leaders with family ties averaged 6.8 years of political experience, while those without averaged 12.8 years. This supports the idea that the two mechanisms could substitute for each other. Women who have family ties to power are granted the trust that the public once had in their father or husband. Women who lack those family ties must prove their ability to lead by gaining relevant political experience, just like men. Both men and women without family ties tend to have around 11 to 15 years of political experience prior to entering top office, which is plenty of time to prove one’s leadership ability.

There was a significant difference between male and female leaders in terms of having children; female leaders were less likely to have children. This is consistent with the hypothesis and the literature; a high demanding job, such as top political office or the experience required to get to this office, makes raising children difficult, especially when society expects the mother to do the majority of the work. This finding about leaders in the political arena is consistent with data from other areas, including academia. Female professors without children and male professors are 33% more likely to get tenure-track positions than women with children (Waxman & Ispa-Landa, 2016). Society may assume that a mother needs to focus her energy and time on
her children; if there is a transition to a more equal division of the parenting responsibility between men and women, perhaps this leadership gap can be narrowed.

Finally, there was no significant difference between male and female leaders in terms of levels of political experience or lower level experience. The majority of both groups tended to have experience at only one level, usually the federal level. This does not support the hypothesized mechanism that female leaders need to work their way through the political system in order to gain the trust of the voters and the gatekeepers of their political party. Instead, like men, most have political experience at the federal level, which is the most relevant level to prepare for top political office.

There were more differences between first female leaders and non-first female leaders than observed between male and female leaders. First female leaders tended to have significantly less political experience and experience at fewer levels of government. This would suggest that instead of having political experience, these first female leaders gained the trust and confidence of their voters through other mechanisms, such as having family ties. However, first female leaders are no more likely to have family ties than non-first female leaders. Further research would be required in order to determine why first female leaders averaged half of the prior political experience than non-first female leaders (9.92 years compared to 18.44 years). There could be another mechanism at play unrelated to experience or family ties to power. Furthermore, non-first female leaders are much more likely to have lower level political experience or experience at multiple levels of government. This lower level experience could be the result of the political system becoming more open to women. This could indicate that once the glass ceiling has been broken, women are more willing to enter electoral politics or political gatekeepers are more open to female candidates. Finally, there is no significant differences
between first female and non-first female leaders in terms of having children. This suggests that the expectation of children is not imposed on first female leaders any more than on non-first female leaders.
Part V: Conclusion

This thesis aimed to answer three questions. First, what characteristics of democracies increase the likelihood that a female executive will come into power? Second, what do female executives look like in comparison to their male counterparts? Finally, what do the first female executives in a country look like in comparison to subsequent female leaders? The empirical analysis suggested that democracies in which women have had the right to vote for longer and in which the executive is a powerful presidency, the onset of female leaders is more likely. In democracies with lower female enrollment in secondary education, where women have had the right to vote for a longer time, where there has been past conflict, and where there is a dual executive or a powerful president, the incidence of female leaders is higher. The second part of the analysis suggested that there are fewer differences between male and female leaders than expected. The only significant differences between male and female leaders were GDP per capita, family ties and children. Finally, there are some interesting differences between first female leaders and non-first female leaders regarding previously political experience; first female leaders tend to have less political experience than non-first leaders.

The findings in this analysis have several positive implications for female leaders in democracies. First, there are an increasing number of female executives, as well as a focus on obtaining equal representation at the legislative level. Getting women seats at the political table is very important to positive political change and increased equality of representation in the future. Second, the data suggests that women are not held to higher standards in terms of their prior political experience, which could mean that once women get into the political arena, moving up the political hierarchy is possible. The difficulty comes in trying to get women into electoral politics; they are less likely to be recruited to run for office, or even to be willing to run
for office. In the future, it is key to shift the way young men and women are politically socialized. As political representation becomes more equal, perhaps this can be addressed. Third, the more time that women have been active members of political communities, the more likely female leadership becomes. As each year passes, women have had the right to vote for longer and longer and are becoming more and more involved in political systems. This bodes well for the future in which the possibility of equal female representation in top political positions is possible.

Ultimately, women are making strides towards representation in the highest political offices in democracies around the world, although full equality of opportunity and representation has yet to be achieved. The onus should not be on women to prove themselves as equal members of a political community, but it seems it may be. For example, Vigdis Finnbogadottir, Iceland’s first female president was elected in 1980; she credits her electoral success to the 1975 nationwide strikes by women that demonstrated their importance and demanded the equal treatment that they deserved (Brewer, 2015). It took the determination of women to change the perception of their importance and role in governance. To bypass the gatekeepers of the political system, women need to change the system from the inside and outside. They need to become gatekeepers in order to break down the barriers that have too often worked against their gender.

In the future, it would be interesting to look more into the difference between first female and non-first female leaders. What happens once the glass ceiling has been broken? Does it become easier or harder for female leaders to enter high political office? Is the effect different at the legislative level, where there have been many more women? It would also be valuable to compare female leaders in democracies and non-democracies. Do female leaders who come to power in non-democracies have different types of experience? Are they different from male
leaders in non-democracies? In many non-democracies, power may depend heavily on a strong or charismatic leader, which is a role that is not stereotypically associated with women. Finally, it would be important to consider party level quotas and their effect at the executive level. These quotas have been effective in many systems at increasing female representation at the legislative level. Does this effect translate to the executive level and increase the number of female heads of governments by increasing the pool of women with relevant experience?

In conclusion, the findings in this thesis suggest that there are certain structural aspects of countries that make women more likely to come to power, and that the women who come to power differ from similar male leaders in several ways. The data used in the analysis covered 1960 to 2015, but the trends for 2016 and 2017 are promising. In 2016, Kersti Kaljuaid was elected the first female prime minister of Serbia, Theresa May became the second female British prime minister, and Tsai Ing-wen was elected as the first female president of Taiwan. In 2017, Angela Merkel was reelected for her fourth term as German chancellor, Jacinda Ahern became the third female prime minister of New Zealand, and Ana Brnabic became the first female and openly gay prime minister of Serbia. It is hopeful that in the future, the momentum behind female executives will continue to grow, and that the women currently in legislatures and executives around the world will work to create more inclusive and representative governments.
References


McSmith, A. (2016). And then there was one: Theresa May is the last candidate standing in race for PM. *The Independent*. Retrieved October 11, 2017.

Miller, C. C. (2014). The motherhood penalty vs. the fatherhood bonus. *NY Times*.


