A Woman's Place Is In the House And In the Senate

Evaluating the Nuances of Voters' Demand for Female Politicians Through Credibility¹

Christiana Moore

A senior honors thesis presented to the Department of Political Science

> University of California, San Diego April 01, 2019

 $^{^1{\}rm This}$ study was approved as exempt by the University of California, San Diego Institutional Review Board (Project 190309).

Acknowledgements

There are so many people I need to thank for their help with this thesis. I cannot express my gratitude enough for your help, and I am truly grateful for all of you. Foremost, I would like to thank my advisor, Professor Claire Adida. Your help was instrumental throughout this thesis, and you provided support when I needed it most. Thank you for continually encouraging me and for helping me throughout every step of this process, and for being a caring and empathetic mentor.

I would also like to thank Professor Seth Hill and Professor David Wiens for their support throughout our seminar. Thank you for always encouraging our class.

Further, I would like to thank PhD candidate Inbok Rhee for his help with programming my conjoint and analyzing the results. I truly appreciate all of your help, especially with your busy schedule. I would also like to thank PhD candidate Kathryn Baragwanath-Vogel for her dedication to our class, and for always patient and willing to help.

I would also like to thank Dr. Adeline Lo for her help with my conjoint data. Thank you for taking the time to meet with me, and for sharing your expertise with me.

Thank you to Professor Mirya Holman, Professor Kristin Kanthak, and Professor Mackenzie Israel-Trummel. Your guidance and support was instrumental at the beginning of my process, and your enthusiasm for my topic was greatly appreciated.

Finally, I would like to thank my friends and family for their unwavering support throughout this process. Thank you for always being there for me.

Contents

1	Intr	oduction	4
2	Lite	erature Review	8
	2.1	Supply of Female Politicians: Why Don't Women Run for Office?	8
	2.2	The Demand for Female Politicians: Do Voters Want Women in Office?	10
	2.3	Credibility: A New Approach to Demand?	14
3	Hyp	ootheses	17
4	Res	earch Design	20
	4.1	Conjoint Analysis in Political Science	20
	4.2	Nuanced Demand Approach through Conjoint Analysis	21
	4.3	Causal Quantities of Interest for Conjoint Analysis	26
5	Res	ults	31
	5.1	Are Female Politicians Perceived as Less Credible?	31
	5.2	Are Female Respondents More Likely to Find Female Politicians Credible?	33
	5.3	Are Republican Respondents Less Likely to Find Female Politicians	
		Credible?	35
	5.4	Are Female Politicians Rated Similarly to Male Politicians?	37
	5.5	Does Female Politicians' Credibility Differ Depending on Policy Priority?	39
	5.6	Summary of Results	40
6	Dise	cussion	41
	6.1	Female Politicians and Credibility	41
	6.2	Female Respondents and Female Politicians' Credibility	41
	6.3	Republican Respondents and Female Politicians' Credibility	42

6.4	Female Politicians' Ratings on Credibility Dimensions	42
6.5	Female Politicians, Policy Priority, and Credibility	43
6.6	Limitations	43
6.7	Implications	44

1 Introduction

There will never be complete equality until women themselves help to make laws and elect lawmakers. -Susan B. Anthony

A series of historic midterm election victories prompted many pundits to label 2018 as the 'Year of the Woman.' [20] On the surface, this nomenclature appears welljustified, as the current U.S. Congress features the largest number of female lawmakers in our country's history. [6] The House of Representatives is once again led by a woman, with Rep. Nancy Pelosi assuming the position of Speaker for a landmark third term. [6] Further, the contemporary preeminence of many freshman Congresswomen, including Rep. Alexandra Ocasio-Cortez, Rep. Ilhan Omar, and Rep. Rashida Tlaib (to name a few), certainly seems to suggest a new era of female political power. [20]

At the same time, representation parity remains elusive. In the United States, women outnumber men, comprising an estimated 50.8 percent of our country's population.² Yet, after a *record-breaking* midterm election year, female politicians hold a paltry 23.7 percent of all Congressional seats. [6] The largest number of women ever elected to the House has resulted in a representative body that is only 23.4 percent female. [6] Moreover, the residents of thirty-one states do not have female representation in the Senate, as a total of twenty-three women currently serve in our country's one hundred-member upper legislative body. [6]

Indeed, these statistics both illustrate a puzzling gender gap in representation and emphasize the necessity of further research on its causes. Why do women comprise fewer than one quarter of all federal lawmakers when over half of the U.S. population is female? In light of this evident representation disparity, it is worth asking why a disproportionately small number of women hold elected office, especially at the Congressional level.

Many decades of research have underscored the importance of gender parity in representation. Having a representative proportion of women in Congress allows for a diverse array of viewpoints and experiences to be represented throughout the lawmaking process. [16] For instance, female politicians are twice as likely³ to sponsor legislation pertaining to women's health, a salient issue for more than half of the United States'

²Data from the 2010 U.S. Census. [32]

 $^{^{3}}$ As per Swers (1990), female politicians co-sponsored an average of 10.6 bills pertaining to women's health, compared to male politicians' average of 5.3 bills.

population. [21] Studies also show that, when women are represented by a female politician, they are more likely to be willing to to discuss politics.[16] Thus, it is apparent that the issue of representation disparity extends beyond the aforementioned statistics. Attempting to solve the disparity problem could lead to lasting change at every level of government, from having diverse policy interests represented in legislation to promoting political discourse among citizens.

The conventional answer to this question is simple: a disproportionately small number of female politicians hold elected office because voters and the political system are biased against women. In line with these conventional expectations, stereotypical gender norms prevent Americans from seeing women as capable political leaders, thus impacting voter choice. Further, the media is often criticized for focusing on female politicians' appearance. [16] Indeed, if the political system, voters, and the media are all biased against women, the cause of disparity is evident.

Nevertheless, recent scholarship contests the accuracy of our conventional wisdom. This literature encompasses two differing approaches: the supply of female politicians, or the reasons why women do not make the choice to run for office, and the demand for female politicians, or the reasons why voters do not want to elect women to office.

Some studies (Bledsoe and Herring 1990; Lawless and Fox 2008) employ a supplyside approach to disparity, and investigate the reasons why women do not run for office. These scholars argue that a gender gap in political ambition is salient to our disparity puzzle. In line with this approach, they find that female respondents are significantly less likely to express interest in a political career. Furthermore, they discover that women are less likely overall to perceive the electoral process as fair. [4] [12]

Others adopt a demand-side perspective to the gender gap in representation. In particular, these studies investigate the impact of conventional gender stereotypes on voters' perceptions, as well as cases of systemic electoral bias against female politicians. [16] Past scholarship (Alexander and Andersen 1993; Huddy and Terkildsen 1993; Law-less 2004; Sanbonmatsu and Dolan 2009) discovered that voters indeed attribute stereo-typical traits to female politicians, and that female politicians were perceived as less capable on certain political issues. [1] [18] [29] Nevertheless, recent research (Hayes and Lawless 2016; Cassese and Holman 2016) finds that the modern influence of gendered stereotypes is subtle. In spite of our conventional expectations, contemporary studies (Hayes and Lawless 2016; Cassese and Holman 2017) largely dispel the notion of women facing systemic, gender-based electoral disadvantages. Likewise, they find

that female candidates are just as likely as male candidates to win elections, and that both genders receive similar amounts of appearance-based media coverage. [5] [16]

Yet, despite this rich body of scholarship, relatively few modern studies investigate the specifics of the demand side. In particular, this literature does not address the specific conditions driving voters' demand for female politicians. As a result, there is still much we do not know about the causes of disparity. This thesis expands on these efforts by taking a nuanced demand-side approach, and by testing if the demand for female politicians is dependent on both voter demographics and specific political issues. I address disparity in the context of modern American politics, where voters may not overtly discriminate against women, but where issues of perception are incredibly salient. In light of this context, I suggest the use of a new measure to evaluate voters' demand for female politicians.

In particular, I focus on credibility as a demand-side measure, both because it is salient to political science and a substantive measure of perception, but also because of its dimensional nature. Indeed, an individual's credibility is defined as the sum of three dimensions: competence, trustworthiness, and caring, and I propose that these dimensions relate to conventional masculine and feminine stereotypes. We know that credibility is an important measure, as recent research establishes credibility as a compelling way to evaluate political leaders (Teven 2008). [31] We also know that studies on gender in U.S. politics (Funk and Coker 2016) employ credibility, but none utilize the concept to address representation disparity. Given the enduring gender gap in Congress, it is worth examining the demand-side's facets through credibility. [13] Therefore, the question I will be answering in this thesis is: what conditions influence voters' perception of female politicians' credibility?

I argue that voters' demand for female politicians is indeed nuanced, and that this nuance is reflected in the relationship between politicians' gender and voters' perception of their credibility. In particular, I expect that female politicians will not, overall, be found as less credible than male politicians. In line with this theory, I also argue that female politicians' ratings on the dimensions of competence, trustworthiness, and caring will not differ from ratings given to male politicians. Instead, I posit that female politicians' credibility will depend on both the specific political issue at hand and respondent characteristics. Specifically, I propose that female politicians will be rated as more credible by female respondents and on Healthcare policies, and I further expect that female politicians will be rated as less credible by Republican respondents and on the political issue of Foreign Policy.

Drawing on a nationally representative sample of over 500 respondents, and on over 2,000 conjoints administered through Lucid's Academia tool in the months after the 2018 midterm elections, I both measure the differences in credibility between hypothetical female and male politicians and identify the specific attributes influencing respondents' preferences. I discover that respondents are no less likely to choose female politicans as credible,⁴ and that respondents' ratings are not influenced by stereotypical gendered traits. Further, I find that female respondents are more likely to rate female politicians as more credible than male politicians at statistically significant levels.

My findings are relevant for policy makers and voters alike. Addressing the representation disparity from an empirical perspective both opens a discourse and allows for a deeper understanding of the subject. This thesis has additional implications for our contemporary understanding of women in politics. We now know that, while female politicians are not necessarily at an overall disadvantage, female respondents are indeed more likely to choose female politicians as credible. This knowledge can be used to both shape campaign messaging and narrow the persisting gender gap in Congress.

Moreover, this thesis makes a number of contributions to existing academic literature. Foremost, this study advances scholarship on gender stereotyping in U.S. politics. We know that both our conventional wisdom and past literature suggest that voters' perception of female politicians is guided by stereotypes. Yet, recent research finds that the influence of these stereotypes is subtle. This thesis provides a modern study on the nuances of gendered stereotypes, as related to both traits and political issues. Additionally, it introduces credibility as a measure for addressing these nuances.

Further, this paper contributes to literature regarding voters' demand for female politicians. We know that female candidates face no systemic, gender-based electoral disadvantages, and we know that female candidates are just as likely as male candidates to win elections. Nevertheless, it is apparent that the representation disparity problem persists, and this study attempts to identify the specific factors influencing voters' demand for female politicians.

Finally, this study facilitates discussion on the use of conjoint analysis in gender politics scholarship. We know that many recent studies have been done on this topic, but we also know that the limitations of traditional survey experiments make it difficult to isolate gender as a factor in respondents' decision-making processes. This thesis

⁴As compared to male politicians.

proposes conjoint analysis as a method to estimate the causal effect of gender on respondents' preferences, as well as to measure the interaction between gender and policy priority.

The remainder of this paper is organized as follows. Chapter 2 discusses existing supply-side and demand-side literature, and introduces credibility as a new measure for evaluating voters' demand for female politicians. Chapter 3 introduces my hypotheses, and discusses the specific conditions I wish to test. Chapter 4 details my use of conjoint analysis; particularly my experimental design and causal quantities of interest. Chapter 5 presents my results, and Chapter 6 concludes.

2 Literature Review

A rich literature has attempted to investigate the causes of representation disparity, spanning supply-side approaches, or the reasons why women may not run for office, and demand-side approaches, or the reasons why voters may not desire more women in office. In spite of these studies, it is evident that women remain disproportionately underrepresented in Congress. Our literature largely finds that modernity has added subtlety to disparity, particularly in regards to demand-side conventional stereotypes. Therefore, in this paper, I adopt a nuanced demand-side approach, and I introduce credibility to address disparity.

2.1 Supply of Female Politicians: Why Don't Women Run for Office?

Why don't more women run for office? A portion of our literature addresses the small supply of female politicians, and investigates the reasons why women may not run for office at the same rates as men. Indeed, many common perceptions align with this approach, as Senator Kirsten Gillibrand of New York was quoted as saying, "It took 10 years of self-confidence to say 'I can run for office...' Many women are self-doubters." [27] It is not surprising, therefore, that supply-side studies show women as having lower levels of political ambition.

This effect was observed across many groups of women, from female politicians serving in office (Bledsoe and Herring 1990) and female political activists (Costantini 1990) to women in the professions most likely to consider running for elected office (Lawless and Fox 2008; Lawless and Fox 2011). Female activists were less likely than male activists to cite ambition as a motivating factor for their political activity (Costantini 1990). Further, female city council members were less likely to consider themselves as "ambitious," and women rating themselves as such were less likely to express desire to run for higher office, as compared to men rating themselves similarly (Bledsoe and Herring 1990).[4] [8] [12]

Women in the professions most likely to seek office were also found to be less politically ambitious than men in similar professions (Lawless and Fox 2004; Lawless and Fox 2008; Lawless and Fox 2011). Experiments indeed reveal that women are less likely to consider running for elected office, and that men "expressed more comfort and felt greater freedom than women when thinking about seeking office." [9] Recent work confirms that this gap in ambition remains salient. Male respondents were still 35 percent more likely to consider running for political office (Lawless and Fox 2008). [12] In the context of our Congressional disparity puzzle, the gap widens, as men were almost twice as likely to express their interest in running for federal office. While 25 percent of male respondents stated that they would be interested in such a federal position, only 13 percent of female respondents concurred. [9] [11] [12]

Why does this gender gap in ambition exist? Our literature finds that these differences in political ambition can largely be attributed to conventional gender stereotypes and norms. Women are traditionally expected to play a larger role in caring for their families, and the influence of these conventional norms impacts the campaign process, women's self-perceptions, and recommendations to run for office (Bledsoe and Herring 1990; Lawless and Fox 2008; Lawless and Fox 2011). [4] [11] [12]

If women are expected to conform to conventional gender roles, it also follows that they will be less likely to consider traditionally male-dominated fields, such as politics. Women were found to be less likely to be willing to endure the grueling campaign trail, in part due to family obligations. A 2008 survey lends support to this relationship, as female respondents were significantly more likely to cite "Spending Less Time With Your Family" as a campaign aspect that would deter them from running for office (Lawless and Fox).⁵ [12]

Moreover, women are less likely to perceive themselves as qualified to run for office, and less likely to think that they have a chance at winning a fair election (Bledsoe and Herring 1990; Lawless and Fox 2004; Lawless and Fox 2008; Lawless and Fox

⁵While 33 percent of women cited family as a campaign aspect that would deter them from running for office, only 25 percent of men stated the same, a statistically significant result.

2011). Survey experiments reveal that male respondents were approximately 65 percent more likely than female respondents to rate themselves as being "qualified" to run. Furthermore, women were less likely overall to perceive the political environment as fair. Female respondents believed that they had a smaller chance of winning an election, both due to their self-perceptions and their perceptions about the electoral environment (Lawless and Fox 2010).[4] [9] [11] [12]

Furthermore, women are less likely than men to receive a recommendation to run for office. While women were just as likely as men to respond positively to a suggestion to run for office, men were more likely to receive such a recommendation (Lawless and Fox 2001; Lawless and Fox 2008; Lawless and Fox 2011). Women are not conventionally expected to run for office, so they do not receive recommendations to do so. [9] [11] [12]

If women do not run for office at the same rates as men, the cause of disparity is evident, as voters cannot elect more female politicians if women do not run. At the same time, we have reason to conduct further research from a demand-side perspective. We know that the gender gap in political ambition is, in part, driven by conventional gender roles and norms, and we also know that women are less likely to perceive themselves as qualified to run (Lawless and Fox 2008). Since these norms stem from societal expectations, we also have reason to believe that they influence voters' perceptions of female politicians. [12]

In this thesis, therefore, I test the modern influence of gendered stereotypes and norms. Given that modern demand-side literature largely discounts the notion of overt, gender-based electoral disadvantages, and that scholarship on stereotypes finds their influence subtle, it is worth conducting a closer evaluation of the demand side. For these reasons, I propose a modern, nuanced study of voters' demand for female politicians, through credibility.

2.2 The Demand for Female Politicians: Do Voters Want Women in Office?

Do voters want women in office? Our demand-side literature emphasizes the nuanced nature of the modern political landscape. Although women were not found to face overt electoral bias, studies find that female candidates are subject to gender-based stereotypes, and that these stereotypes remain salient in specific cases. In this paper, therefore, I test the continued influence of demand-side gendered stereotypes, as related to both traits and political issues.

Gender-Based Disadvantages Throughout the Electoral Process

Modern scholarship reveals that women face no disadvantages throughout the electoral process, lending support to our nuanced demand-side approach. These findings contradict conventional expectations, which suggest that female candidates face overt, systemic electoral bias. Indeed, public opinion largely aligns with these conventions, as a 2008 Pew Research study found that 79 percent of voters believe that more women are not in office because voters are not ready to elect them. Moreover, the 2014 Cooperative Congressional Election Survey discovered that 60 percent of American voters believe that the media focuses too much on the appearance of female candidates. In line with these expectations, the media is often criticized for focusing on the appearance of female politicians. [16]

In spite of this conventional wisdom, scholars find that female politicians face no systemic, gender-based disadvantages throughout the electoral process (Hayes and Lawless 2016). Female candidates running for federal and state office are just as likely to win as male candidates. Likewise, gender does not play a significant role in election outcomes, and in U.S. House elections, women actually received a small advantage from female voters. These findings also remain consistent throughout modern literature (Hayes and Lawless 2016). Indeed, Hayes and Lawless state that, "while female candidates in decades past may have faced stereotypes, skepticism, and bias that impeded their quests for office or presented them with additional challenges, the twenty-first-century political landscape is far more equitable." [16]

This lack of bias also extends to media coverage, as female candidates were not found to be subject to disproportionate amounts of appearance-based media coverage (Hayes and Lawless 2016). In particular, a media analysis of the 2014 U.S. House midterm elections found that 95 percent of female candidates and 96 percent of male candidates received no appearance-based media coverage whatsoever. Moreover, women and men received virtually identical coverage of their campaigns, and an insignificant fraction of that coverage referred to the candidate's gender, either explicitly or implicitly (Hayes and Lawless 2016). [16]

In sum, female candidates are no longer perceived as a novelty in politics, and this, combined with the increasing salience of partian politics, leads to the conclusion that the gender of a candidate does not lead to overt bias in the electoral process. Yet, it is evident that the gender gap in representation persists, and these findings emphasize the nuances of voters' demand for female politicians. For these reasons, I propose a modern study, using credibility to evaluate the nuances of the demand side.

Modern Prevalence of Gender-Based Trait and Issue Stereotypes in Politics

We know that women are no less likely to win elections, and we also know that female candidates do not receive disproportionate amounts of appearance-based media coverage. However, it has been established that overt electoral bias and stereotypes must be evaluated separately, as existing literature argues that, while election outcomes may not favor men, women are still subject to stereotyping (Alexander and Andersen 1993; Sanbotmatsu and Dolan 2009). This scholarship can be aptly summarized in the following statement, "women's vote-getting ability does not necessarily mean that voters react to men and women candidates in the same way" (Sanbotmatsu and Dolan 2009). Thus, we have reason to examine the history and prevalence of these stereotypes. [1] [29]

Stereotypes in U.S. politics are largely based on traditional gender roles (Huddy and Terkildsen 1993; Lawless 2004). In line with these conventional expectations, female politicians are stereotypically characterized as compromising, compassionate, and emotional, while male politicians are more likely to be described as self-confident, assertive, and tough (Lawless 2004). Moreover, the impact of these conventions is not to be taken lightly, as they extend beyond simple characterization. For instance, the presence of stereotyped traits directly impacts perceptions of politicians' leadership abilities (Lawless 2004; Sanbonmatsu and Dolan 2009; Cassese and Holman 2016). Citizens were found to largely prefer the leadership styles and characteristics of men over those of women (Lawless 2004). Voters also favor a male-dominated leadership environment (Sanbonmatsu and Dolan 2009), and associate political leadership with masculine traits, creating a disconnect between female politicians and the public (Cassese and Holman 2017). [5] [23] [29]

Indeed, these stereotypes add nuance to voters' demand for politicians, specifically as related to political issues (Huddy and Terkildsen 1993; Koch 1999; Lawless 2004). Overall, women are perceived to be better equipped to handle "social and domestic issues," such as healthcare and education. Likewise, men are characterized as more able to deal with topics aligning with traditional masculine expectations, such as foreign policy and the military (Huddy and Terkildsen 1993; Koch 1999; Lawless 2004). These findings remain consistent throughout survey experiments featuring both real and hypothetical politicians.[18][22][23]

Respondents were found to rate real U.S. Senate candidates differently on different political issues, and these differences were largely attributed to the candidate's gender (Koch 1999). In particular, female candidates were rated as better able to handle social issues, while male candidates were rated as more competent overall.[22] Another study of hypothetical politicians aligns with this result, as female candidates were perceived as more capable at handling political issues traditionally associated with feminine traits, and male candidates were perceived as more able to handle issues associated with masculine traits (Lawless 2004). In sum, according to Lawless, "the female candidate was seen as more competent on compassion and women's issues; the male candidate had the edge on military issues." [23]

But, we also have reason to believe the contemporary influence of gender-based stereotypes is subtle. A body of recent scholarship (Hayes and Lawless 2016; Cassese and Holman 2017) concludes that the modern impact of stereotypes is more subtle than previous research found. Indeed, these scholars posit that voters no longer attribute stereotypes to politicians solely based on their gender. Instead, they argue that the impact of politicians' gender is largely dependent on contextual factors, such as political party or political issue. [5] [16]

An experiment conducted with data from the 2010 and 2014 U.S. House midterm elections lends support to this argument. Contrary to past findings, Hayes and Lawless (2016) discover that "the gender difference never meets conventional levels of statistical significance." [16] In spite of this overall conclusion, ratings for female candidates on traditionally female issues, such as gender equality and abortion, were slightly higher than ratings on the same issues for male candidates. Further analysis reveals that this effect extends to male candidates, with men receiving slightly higher ratings on crime and national security. [16]

In line with these findings, other studies (Cassese and Holman 2017) discover that the modern influence of gendered stereotypes is subtle, and dependent on context. Indeed, they find that negative use of stereotypes in campaign attacks affects candidates and voter choice, but that these effects are largely dependent on both context and political party. Moreover, this subtle effect was observed with both trait and political issue-based stereotypes. In an experiment featuring a mock newspaper article, female candidates were found to be highly vulnerable to feminine trait-based attacks and somewhat vulnerable to masculine trait-based attacks, but male candidates were not particularly affected by either. Further, female candidates were found to be highly susceptible to attacks on traditionally feminine policy issues. [5]

It is evident that modern studies on gender-based trait and issue stereotypes emphasize the subtleties of these stereotypes' impact, and it is also evident that representation disparity persists. Therefore, I propose a modern study, based on both policy priority and credibility. In particular, I examine the impact of multiple attributes on voters' perception of hypothetical politicians. Further, for these reasons, I test the modern salience of these stereotypes with credibility, in part to see if recent findings (Hayes and Lawless 2016; Cassese and Holman 2017) extend to perceptions of credibility. [5] [16]

2.3 Credibility: A New Approach to Demand?

Do voters find female politicians credible? In the context of contemporary demand-side findings, it is evident that voters do not overtly discriminate against female politicians, and that the modern influence of stereotypes is subtle. Thus, in this study, I propose the use of credibility as a measure for addressing these nuances, and my reasoning is fourfold.

Foremost, credibility has long been utilized in the context of evaluating leaders. Scholarship on credibility dates back many centuries, and begins with Aristotle's original construct of ethos, which was comprised of the dimensions of intelligence, character, and goodwill (McCroskey and Teven 1999). Aristotle describes ethos as being one of the most important measures of communication, and a body of social science literature attempts to expand on this importance. Indeed, a long history of literature (Applbaum and Anatol, 1973; McCroskey and Young, 1981; McCroskey and Teven 1999) has resulted in the definition and operationalization of ethos, specifically for the purpose of evaluating leaders. More recently, scholarship (McCroskey and Teven 1993) coins the term *credibility* as a modern representation of ethos, and defines it as the image of the source in the minds of receivers. Credibility is often cited as a substantive measure of perception, as it represents attitudes towards leaders, and for this reason, I utilize the concept to evaluate attitudes towards female politicians.[2] [25] [26]

Second, the dimensional nature of credibility relates to demand-side gendered stereotypes. Existing literature (McCroskey and Teven 1999; Teven 2008) establishes that, in line with Aristotle's original definition, credibility is comprised of the sum of three dimensions: competence, trustworthiness, and caring. Competence refers to a leader's expertise, or their knowledge on a particular subject. Trustworthiness refers to a leader's honesty, or the validity of their communication. Finally, caring refers to empathy, or the degree to which an audience perceives a leader to care about the issue that matter to them.[25] It is, in part due to these dimensions that I test voters' demand for female politicians through credibility. Indeed, the dimensions of competence, trustworthiness, and caring align with the stereotypical gender trait-based stereotypes discussed in existing demand-side literature (e.g. Lawless 2004). [23]

Competence is cited (e.g. Lawless 2004) as a stereotypically masculine trait, and in past studies, female politicians were rated as less competent than male politicians. In addition, caring is considered to be a traditionally feminine trait, and female politicians were rated higher on caring and similar traits. In this study, therefore, I test the continued influence of gender trait-based stereotypes with credibility. These dimensions also relate to gendered issue-based stereotypes, a salient part of my argument. Foreign policy and national security are associated with the trait of competence, and in turn, these traits and issues are considered masculine. On the other hand, caring and domestic policy issues are aligned, and they are both commonly attributed to female politicians. In light of the relationship between these dimensions and political issues, I also test the modern impact of gender-trait based stereotypes through credibility. In sum, the concept allows me to test if demand, is in fact nuanced, as I compare female politicians' overall credibility ratings to ratings on each of the dimensions, as well as their credibility conditional on both policy priority and respondent characteristics. [23]

Further, scholars (Teven 2008; Funk and Coker 2016) find that credibility is, in fact, a substantive method for evaluating political leaders, and argue that the concept plays a large role in political imaging. In line with this argument, Teven (2008) theorizes that credibility is a particularly salient measure for evaluating political candidates. Overall, he finds that credibility has a significant, positive correlation with other traits deemed desirable for candidates. In particular, his study of 2008 U.S. presidential candidates reveals that respondents' ratings of the caring dimension of credibility are significantly and positively correlated with respondents' ratings of the candidate's likeability and believability. [13] [31]

Credibility is utilized in a myriad of political experiments, including surveys with both real and hypothetical politicians. The aforementioned Teven (2008) study finds that credibility aligns well with other important candidate attributes. For this experiment, respondents were asked to rate real U.S. presidential candidates on competence, trustworthiness, caring, believability, likeability, and deceptiveness. Rating scores for competence, trustworthiness, and caring were then averaged into an overall credibility score, and this score was in turn regressed with respondents' ratings for the remaining three scores. Further, each individual dimension rating score was also regressed with believability, likeability, and deceptiveness. Indeed, this study reveals the efficacy of credibility, both conceptually and in the context of experimental design. [31]

Another study on gender in U.S. politics (Funk and Coker 2016) utilizes credibility as a measure for evaluating respondents' perceptions of a hypothetical female politician, but is limited in its methods. Respondents were exposed to objectifying commentary about a female politician, and were then asked to rate the politician on a series of measures, which were then summed into an overall credibility score. However, the authors' use of multiple measures to create an overall credibility score was cited as a limitation of this study. Therefore, for this reason, I measure credibility with a single forced-choice question. In light of the above, I test voters' demand for female politicians through credibility. In particular, I employ a conjoint analysis survey experiment to investigate the nuances of the demand-side. I detail the specific factors I will be testing in Chapter 3.

3 Hypotheses

Hypothesis 1 (H_1) : I expect that female politicians will be no less likely to be chosen as credible than male politicians.

I hypothesize that voters' demand for female politicians is indeed nuanced, and that their perceptions of female politicians are not solely dependent on the politician's gender. In line with this theory, I expect that, overall, respondents will not be less likely to choose female politicians as credible, as compared to male politicians. This expectation follows recent literature (Hayes and Lawless 2016; Cassese and Holman 2017) in that female politicians are not at an overall disadvantage in the electoral process, and in that the contemporary effect of gendered stereotypes is subtle. [5] [16]

Hypothesis 2 (H_2) : I expect that female respondents will be more likely to choose female politicians as credible.

Nevertheless, I expect demand-side nuances to be reflected in respondents' characteristics. Specifically, I theorize that female respondents will be more likely to choose female politicians as credible. I expect this result to reflect modern literature (Hayes and Lawless 2016), where female respondents were found to prefer female politicians. Although voters as a whole may not take a politician's gender into account, I expect that women will prefer female politicians, and that the respondent characteristic of gender will indeed be one of the nuances of the demand side. [16]

Hypothesis 3 (H_3) : I expect Republican respondents to be less likely to choose female politicians as credible.

I also hypothesize that Republican respondents will be less likely to choose female politicians as credible overall. I expect this result in part due to the larger gender gap among Republican Members of Congress. Indeed, only thirteen women in the 2019 U.S. Congress are Republican. ⁶ I further expect this result due to the more conservative values held by Republican party members. Voters as a whole may not take a politician's gender into account, therefore, I theorize that respondents' political party affiliation is also a demand-side nuance.

⁶Data from the Center for American Women and Politics at Rutgers University. [6]

Hypothesis 4 (H_4) : I expect that female politicians' gender will not have an effect on their ratings for the dimensions of credibility.

I theorize that female politicians' gender will not have an effect on the individual dimensions of credibility. In particular, I expect that female politicians will be rated no higher on the caring dimension of credibility, and that they will be rated no lower on the competence and trustworthiness dimensions of credibility, as compared to male politicians. Past literature (Huddy and Terkildsen 1993; Sanbonmatsu and Dolan 2009) found that female politicians were stereotypically ascribed specific traits, and that they were less likely to be considered competent. However, current scholarship (Hayes and Lawless 2016; Cassese and Holman 2017) argues that the contemporary effect of stereotypes is subtle. In line with this scholarship, I expect that the modern nuance of gendered stereotypes means that female politicians' gender will not have an effect on these specific traits (Huddy and Terkildsen 1993; Lawless 2004). In sum, I do not expect respondents' ratings of female politicians' competence, trustworthiness, and caring to significantly differ from their ratings for male politicians. [16] [18] [23] [29]

Hypothesis 5 (H_5): I expect that female politicians will be more likely to be rated as credible than male politicians on the policy priority of Healthcare, and less likely to be rated as credible than male politicians on the policy priority of Foreign Policy.

However, I also expect the nuances of gendered stereotypes to appear in regards to specific policy priorities. I hypothesize that the effect of gender-based stereotypes on credibility is dependent on the specific policy priority at hand. Past scholarship (Huddy and Terkildsen 1993; Koch 1999; Lawless 2004) found that gender-based stereotypes are linked to specific politicial issues, as female politicians were found as more capable to handle domestic policy issues and less capable with national security. Recent studies (Hayes and Lawless 2016; Cassese and Holman 2017) find that the effect of gendered stereotypes is subtle, but they do not study the contemporary effect of these stereotypes in regards to specific political issues. [5] [16] [18] [22] [23]

Therefore, I expect that, in line with both past and recent research, the effect of gender-based stereotypes is subtle, but I expect this nuance to be reflected in the interaction between female politicians' gender and their policy priority. In particular, I expect female politicians to be more credible on Healthcare due to the conventional stereotype of women as more empathetic and caring (Huddy and Terkildsen 1993; Koch 1999; Lawless 2004). Additionally, I expect female politicians to be less credible on Foreign Policy due to past studies (e.g. Lawless 2004) establishing security and foreign policy issues as being traditionally masculine domains. Although voters may no longer make outright stereotypical assumptions about female politicians being more caring and less competent, I expect that conventional stereotypes will have an effect on female politicians' credibility on different policy priorities. [5] [16] [18] [22] [23]

4 Research Design

In line with my nuanced, demand-side approach to disparity, I employed a conjoint analysis design for my experiment. My overview of the conjoint method, experimental design,⁷ and quantities of interest are detailed below. Relying on Lucid's Academia tool, I procured a nationally-representative sample of over 500 United States residents and fielded over 2,000 conjoints.

4.1 Conjoint Analysis in Political Science

A traditional conjoint experiment features a number of competing profiles, each with a set series of attributes. Levels within these attributes are randomized, and survey respondents are asked various questions, referred to as outcome measures, about the profiles. Respondents are shown a researcher-designated number of sets of these profiles and outcome measures, known together as tasks. Hainmueller and Hopkins (2014) proposed conjoint analysis as an effective method of both addressing the limitations of traditional survey experiments and measuring multidimensional political choices. Indeed, conjoint analysis has become increasingly popular in political science for a multitude of reasons. [15]

Foremost, it allows researchers to nonparametrically find and isolate the effects of multiple treatment components⁸ on an outcome. In traditional survey experiments, researchers are limited in their ability to analyze multiple attributes, as it is difficult to identify the effect of a single attribute on an outcome. However, in conjoint analysis, attributes represent effects on the same outcome, so they can be evaluated on the same scale, affording scholars both internal validity and a method to evaluate the effect of multiple treatment components (Hainmueller 2014). [15]

Moreover, this design allows for increased realism in respondents' decision-making processes. In the real world, people are often forced to make choices based on a variety of preferences and factors. This enhanced realism translates well to the field of political science, as voters and other actors must often make a choice between two politicians or candidates with varying attributes (Hainmueller 2014). [15] Indeed, recent literature (Hainmueller, Hangartner, and Yamamoto 2014) lends support to this realism, as a

⁷My full survey instrument is available in the appendix.

⁸In conjoint analysis, attributes represent treatment components. I generally use the term attribute throughout my paper, but I also utilize the term treatment component.

study found that the conjoint design came closest to validating real world behavior.⁹

Further, conjoint analysis has gained prominence for its various experimental design forms: choice-based conjoint analysis and ratings-based conjoint analysis. In choicebased conjoint analysis, respondents choose between multiple profiles with varying attributes, while in ratings-based conjoint analysis, respondents rate profiles on a numerical scale. The ability to measure both forced choices and ratings of profiles is another advantage of this design,¹⁰ as having both of these options available enhances realism and provides further insight into respondents' decision-making processes, thus increasing internal validity (Hainmueller 2014). [15]

4.2 Nuanced Demand Approach through Conjoint Analysis

The multidimensional nature of credibility, as well as of my hypotheses, closely fit the conjoint experiment model, and I employ this design for the following reasons. Foremost, I test multiple hypotheses with one experiment model, affording me a cost and time-effective way to address my argument. In addition, I present politician profiles with multiple varying attributes, and I subsequently measure the causal effect of the attribute of Gender on each outcome, allowing me to identify the conditions influencing voters' demand for female politicians. Further, in line with my nuanced demand approach, I measure the interaction between gender and policy priority, and I test the conditional effects of specific attributes given specific respondent covariates, specifically respondent gender and respondent political party affiliation.

Each respondent was presented with five pairs of profiles, and each pair was accompanied by seven outcome measures. Existing literature (Bansak, Hainmueller, Hopkins, and Yamamoto 2018) finds that the conjoint design is robust, and that respondents do not exhibit signs of survey fatigue, even when assigned up to thirty tasks. For the purposes of my experiment, I assigned five tasks to each respondent, keeping the scope of this project in mind. [3]

Attributes within the profiles were completely independently randomized, and the probability of any given attribute appearing on the conjoint was orthogonal to the

⁹This study validated the results of both conjoint experiments and stated preference experiments against a referendum held in Switzerland. This referendum allowed citizens to vote on whether to allow foreign citizens to be naturalized. In this study, the conjoint model came closest to validating real world behavior. [14]

¹⁰As per Hainmueller, et. al 2014, many conjoint experiments employ both choice-based and ratingsbased outcome measures.

rest of the attributes. Further, I did not place restrictions on attribute combinations, as each potential combination of attributes was a realistic possibility. My experiment is divided into three sections: the collection of pretreatment covariates or respondent demographic information, the administration of the conjoint, and the collection of outcome data.

Collection of Respondent Pretreatment Covariates

Survey respondents were first asked a series of pretreatment questions about their gender, ethnicity, political party affiliation, age, and education level. These questions were included to test my H_2 and H_3 regarding the effect of respondents' gender and political party affiliation, respectively, on overall credibility, as with the conjoint design I was able to estimate the effect of any given attribute on an outcome for specific covariates. It is important to note that I collected respondent pretreatment covariates before the display of profiles. Thus, respondent characteristics were independent of and were not affected by the treatments.¹¹

Conjoint Experiment Design and Administration

My conjoint included a short explanation preceding each pair of profiles. The text reads as follows:

You are being asked to evaluate the qualities of two politicians in the United States House of Representatives.

Many studies (Lawless 2004; Hayes and Lawless 2016) on gender in U.S. politics have opted to focus on the House of Representatives for its generalizability to other levels of elected office. In line with these studies and with my initial puzzle, I chose the House for my experiment. [16] [23] Respondents were presented with five pairs of politician profiles sequentially, with random combinations of levels within five attributes.¹² In each pair of profiles, the left side was labeled as 'Politician A,' and the right side was labeled as 'Politician B.' I focus on five attributes with completely randomized levels, including the politician's gender (Male or Female), ethnicity (White, Black or African American, Asian, Native American or American Indian, Hispanic or Latino), political

¹¹As per Hainmueller et.al, this is one method to improve internal validity.[15]

¹²As stated previously, each respondent viewed five conjoint profiles and five sets of outcome measures, for a total of five tasks per respondent.

Conjoint Profile Example						
Politician A Politician B						
Gender	Male	Female				
Ethnicity	White	Asian				
Political Party	Democrat	Republican				
Policy Priority	Healthcare	Foreign Policy				
Years of Experience	4 years	8 years				

Table 1: An example set of profiles shown to respondents.

party affiliation (Democrat, Independent, or Republican), years of experience (4 years, 8 years, or 10 years), and political issue area competency (Foreign Policy, Healthcare, or Economic Policy). An example set of profiles is displayed in Table 1.

In scholarship on the subject, gender is discussed in the binary, thus I present the two levels of male and female in the conjoint. I chose the political party levels of Democrat, Independent, and Republican for their salience to the American political landscape.¹³

I chose the policy priority levels to represent the issue-based gender stereotypes discussed in Lawless (2004) and the dimensions of credibility outlined in McCroskey and Teven (1999). [25]Foreign policy has been established as a stereotypically masculine issue in gender politics scholarship, where competence may hold higher value. On the other hand, I chose healthcare to represent a stereotypically feminine issue, where caring may be more salient. Further, I selected Economic Policy as a neutral comparison level, which parallels the gender-neutral nature of trustworthiness.¹⁴ [23]

Although my primary and secondary hypotheses focus on the attributes of gender, political party affiliation, and policy priority, I included the attributes of ethnicity and years of experience for internal validity purposes. The use of more attributes allows for respondents to make decisions that closely parallel real-world conditions. When voters and individuals make political choices, they base their decisions on a wide variety of factors. The use of only gender, political party affiliation, and policy priority as attributes would give respondents a less complete profile of the politician, thereby potentially affecting their decision-making processes.[15]

 $^{^{13}}$ In a 2018 Gallup poll, 42 percent of Americans identified as Independent, while 32 percent and 24 percent identified as Democrat and Republican, respectively. [19]

¹⁴As per the stereotypes outlined in existing demand-side literature (e.g. Lawless 2004), trustworthiness and economic policy were not discussed as being either stereotypically masculine or stereotypically feminine traits.

Collection of Outcome Data

I evaluated respondents' perceptions of each politician's credibility with a series of 7 outcome measures shown with each profile. Respondents were first asked to choose which politician they found more credible in a forced-choice outcome measure, which tests my hypotheses H_1 , H_2 , H_3 , and H_5 . In light of the limitations of Funk and Coker (2016), I assessed credibility with a single question,¹⁵ rather than as the sum of multiple measures. Further, respondents were asked to rate each individual politician on a scale from 1 (extremely incompetent/untrustworthy/not caring) to 5 (extremely competent/trustworthy/caring) on each of the dimensions of credibility. I included these rating-based outcome measures to test my H_4 ; and consequently, the continued influence of trait-based gender stereotypes. These outcome measures allow me to assess these stereotypes, as well as individual dimensions of credibility, without the limitations involved in creating a total credibility score (e.g. Funk and Coker 2016). [13]

Outcome Measures and Outcomes of Interest

As discussed briefly in the preceding section, I utilize the following outcome measures:

Y1: Please read the descriptions of the politicians carefully. Please indicate which of the two politicians you find to be more credible.

Y2: If competence is understood to mean the level of expertise an individual possesses, how would you rate Politician A?

Y3: If competence is understood to mean the level of expertise an individual possesses, how would you rate Politician B?

Y4: If trustworthiness is understood to mean the degree of trust you have in an individual, or how honest you perceive them to be, how would you rate Politician A?

Y5: If trustworthiness is understood to mean the degree of trust you have in an individual, or how honest you perceive them to be, how would you rate Politician B?

Y6: If caring is understood to mean the degree to which an individual cares about the issues that matter to you, how would you rate Politician A?

Y7: If caring is understood to mean the degree to which an individual cares about the issues that matter to you, how would you rate Politician B?

Given my H_1 , H_2 , H_3 , and H_5 , which focus on overall credibility, as well as the in-

 $^{^{15}}$ As discussed in Chapter 2.3, Funk and Coker discussed their combination of rating scales as a limitation of their experiment.

teraction between both policy priority and respondent covariates, my primary outcome of interest is the forced-choice outcome measure, which reads as follows:

Y1: Please read the descriptions of the politicians carefully. Please indicate which of the two politicians you find to be more credible.

I employ the forced-choice outcome $\mathbf{Y1}$ as my primary outcome of interest. Using the quantities of interest I detail below, I use $\mathbf{Y1}$ to test the majority of my primary and secondary hypotheses. Moreover, I utilize the outcome measures $\mathbf{Y2-Y7}$ to test my H_4 , which theorizes that female politicians will not be rated lower on each of the dimensions of credibility. As with outcome of interest $\mathbf{Y1}$, I employ the methods detailed in Section 4.3 to test this hypothesis.

External Validity of Lucid

I employed both the Conjoint Analysis Survey Design Tool developed by Strehznov, et. al (2014) [30] and the survey question function in Qualtrics to design my survey, which I then disseminated through Lucid's Academia tool. The Lucid platform, when compared to Amazon's Mechanical Turk (MTurk) and other popular online sampling providers, provides a number of advantages in regards to external validity. Foremost, in a study of online survey platforms (Coppock and McClellan 2019), Lucid's gender demographics most closely resembled data from the 2010 U.S. Census. A representative balance of respondents' gender was especially important for my experiment, as my survey was designed primarily to test the causal effect of the Gender attribute on female politicians' credibility. Further, Lucid subjects' political behavior and attitudes aligned well with ANES and CCES 2012 respondents, providing me with the nationally representative sample necessary for an analysis of political perceptions. Finally, Lucid respondents are less likely overall to be professional survey-takers, an increasingly salient external validity issue with Amazon's MTurk platform. [7]

Power Analysis

I utilized Johnson and Orne's (1996) method for determining sample size N for a choicebased conjoint analysis. The formula is depicted below, with n representing sample size, t representing the total number of tasks, a representing the number of alternatives to choose from per task, and c representing the largest number of levels for any one attribute. [28]

$$\frac{nta}{c} \ge 500$$

After solving for n and inputting the values of t=5, a=2, and c=5,¹⁶ I arrived at the minimum N value of 250. However, to test my secondary hypotheses, I required the analysis of subgroups of respondent covariates. As per the method developed by Johnson et. al, the recommendation for subgroup analysis was to multiply the above minimum N by the number of subgroups. Since my H_2 and H_3 focus on the causal effect of a politician's gender on Female and Republican respondents' perceptions of the politician's credibility, I arrived at a sample size of N = 500, with the original N of 250 multiplied by the two subgroups of respondent gender and respondent political party affiliation.[28]

4.3 Causal Quantities of Interest for Conjoint Analysis

To test my hypotheses, I employed the use of several causal quantities of interest outlined in Hainmueller et.al (2014). Relying on several assumptions¹⁷ regarding the conjoint analysis method specifically, these authors proposed new quantities of interest, including the *average marginal component effect* (AMCE), the *average component interaction effect* (ACIE), and the *conditional average marginal component effect*. I examine and detail these causal quantities and their relationships with my hypotheses below.[15]

Baselines

These quantities of interest calculate the effect of various treatment components as compared to a baseline set of attributes. For the purposes of my analysis, I utilized the baseline profile displayed in Table 2.

¹⁶Respondents each received a total of five tasks, and were shown two profiles, or alternatives for the forced-choice question. The attribute of Ethnicity had the largest number of levels, with five possible options total within the attribute.

¹⁷These assumptions are that respondents' outcomes are independent of the profiles, and that attributes within the profiles are randomized (Hainmueller 2014)

Baseline Profile					
Attribute	Baseline Politician				
Gender	Male				
Ethnicity	White				
Political Party	Independent				
Policy Priority	Economic Policy				
Years of Experience	8 years				

Table 2: The baseline profile used for my analyses.

I chose the attributes of Male, White, Independent, Economic Policy, and 8 years of experience. I selected Male as the gender baseline, as I wanted to compare the effect of the attribute Female against Male. White, Independent, Economic Policy, and 8 years of experience were all chosen as the most neutral and least likely to be polarizing out of the remaining attributes.¹⁸

Average Marginal Component Effect (AMCE)

The average marginal component effect (AMCE) represents the effect of an attribute averaged over the joint distribution of the remaining attributes. This effect's calculation is possible due to the random assignment of attributes within the conjoint.

$$\hat{\bar{\pi}}_{l}(t_{1}, t_{0}, p(t)) = \sum_{(t, t)\in\widetilde{\mathcal{T}}} \left\{ \mathbb{E} \Big[Y_{ijk} | T_{ijkl} = t_{1}, T_{ijk[-l]} = t, T_{i[-j]k} = t \Big] - \mathbb{E} \Big[Y_{ijk} | T_{ijkl} = t_{0}, T_{ijk[-l]} = t, T_{i[-j]k} = t \Big] \right\} \\ \times p \Big(T_{ijk[-l]} = t, T_{i[-j]k} = t | (T_{ijk[-l]}, T_{i[-j]k}) \in \widetilde{\mathcal{T}} \Big).$$

Figure 1: AMCE Calculation (Hainmueller 2014)

The calculation in Figure 1 denotes the marginal effect of an attribute l averaged over the distribution of the remaining attributes. As depicted, $T_{ijk}[-(l)]$ represents a vector L - 1 of attributes for i respondent's jth profile in conjoint task k. \widetilde{T} denotes

¹⁸I selected White as the Ethnicity baseline, as it represents the largest segment of the United States' population. Independent was the most neutral of the party affiliations, while I chose Economic Policy to represent a less-gendered policy issue. 8 years of experience was the middle value for the attribute Years of Experience.

the intersection of support for the baseline category and the attribute being tested. With this calculation, we can determine the probability of a profile being chosen if its attribute l were changed from the baseline attribute of t_0 to the attribute of choice t_1 . It is important to note here that AMCE is calculated as a function of $p(\mathbf{t})$, or the sum of the joint distribution of all other attributes.[15]

I use AMCE to test my H_1 : I expect that female politicians will be no less likely to be chosen as credible than male politicians. Since my H_1 pertains to the overall effect of gender on credibility, I isolate the effect of the l attribute gender and find out the probability of a change in outcome **Y1** when the l attribute is changed from the baseline of t_0 to t_1 . In particular, I measure the probability of a profile being chosen if it had the l attribute of Female instead of the baseline attribute of Male, allowing me to see the causal effect of gender on my outcome of interest **Y1**. I expect the probability of a profile with the l attribute of Female being chosen as more credible to not differ significantly from the baseline with the l attribute of Male.

I further employed AMCE to test my H_4 : I expect that female politicians' gender will not have an effect on their ratings for the dimensions of credibility. Given that my H_4 pertains to female politicians' ratings on the three dimensions of competence, trustworthiness, and caring, I measure the probability of a profile with the *l* attribute of Female being rated higher on each of these dimensions as compared to a profile with the baseline *l* attribute of Male. Thus, I employ AMCE to test each of my ratingbased outcome measures **Y2-Y7**. I expect that the probability of a profile with a female politician being rated as more competent, trustworthy, or caring will not be significantly higher or lower than ratings given to the baseline profile with a male politician.

Average Component Interaction Effect (ACIE)

The average component interaction effect (ACIE) is used to measure the interaction between attributes. That is, we can quantify the size of such interactions by determining the causal effect of multiple attributes on our outcome.

$$\begin{split} \bar{\pi}_{l,m}(t_{l1}, t_{l0}, t_{m1}, t_{m0}, p(t)) \\ &\equiv \mathbb{E}\bigg[\Big\{Y_i(t_{l1}, t_{m1}, T_{ijk[-(lm)]}, T_{i[-j]k}) - Y_i(t_{l0}, t_{m1}, T_{ijk[-(lm)]}, T_{i[-j]k})\Big\} \\ &- \Big\{Y_i(t_{l1}, t_{m0}, T_{ijk[-(lm)]}, T_{i[-j]k}) - Y_i(t_{l0}, t_{m0}, T_{ijk[-(lm)]}, T_{i[-j]k})\Big\}\Big| \Big(T_{ijk[-(lm)]}, T_{i[-j]k}\Big) \in \widetilde{\widetilde{\mathcal{T}}}\bigg], \end{split}$$

Figure 2: ACIE Calculation (Hainmueller 2014)

In the calculation displayed in Figure 2, $T_{ijk}[-(lm)]$ is used to represent the set of $L - 2^{19}$ attributes for respondent *i*'s *j*th profile on task *k*. This calculation represents the average difference in AMCE of attribute *l* between the profile $T_{ijkm} = t_1$ and $T_{ijkm} = t_0$. To further clarify, I calculate ACIE, or the probability of a profile being chosen given the interaction of two attributes, which is done by taking the average difference in the AMCEs of the two attributes I wish to measure. [15]

With this calculation, I test my H_5 : I expect that female politicians will be more likely to be rated as credible than male politicians on the policy priority of Healthcare, and less likely to be rated as credible than male politicians on the policy priority of Foreign Policy, which concerns the interaction between the attributes of politician gender and politician policy priority. I calculate ACIE given the interaction between these two attributes, thus providing me with the information needed to test H_5 . Since my baseline politician profile includes the attributes of Male and Economic Policy, with ACIE I measure how the probability of a profile being chosen as more credible²⁰ changes with different combinations of the remaining attributes.

In particular, I wish to measure the difference in the probability of a profile being chosen as more credible given the attribute combination of (Female and Healthcare) and less credible given the combination of (Female and Foreign Policy). Through ACIE, I calculate the causal effect of both gender and policy priority on outcome **Y1**. Specifically, this measure will allow me to test if female politicians are perceived as more credible than male politicians when their policy priority is Healthcare, and less credible than male politicians when their policy priority is Foreign Policy.

 $^{^{19}\}mathrm{As}$ compared to the AMCE calculation, L=2 attributes here represents the interaction of two attributes within a politician profile

 $^{^{20}}$ As compared to the baseline detailed above.

Conditional Average Marginal Component Effect

The *conditional* average marginal component effect is used to measure interactions between attributes and respondent covariates. Specifically, we can determine how the effect of an attribute changes as a function of specific respondent covariates.

$$\mathbb{E}\Big[Y_{i}(t_{1}, T_{ijk[-l]}, T_{i[-j]k}) - Y_{i}(t_{0}, T_{ijk[-l]}, T_{i[-j]k})|(T_{ijk[-l]}, T_{i[-j]k}) \in \widetilde{\mathcal{T}}, X_{i}\Big],$$

Figure 3: Conditional AMCE Calculation (Hainmueller 2014)

The calculation in Figure 3 denotes the marginal effect of an attribute conditional on a respondent covariate of interest. With this calculation, I can determine the probability of a profile being chosen if its attribute l were changed from the baseline of t_0 to t_1 , given a set of respondent characteristics X_i . In this equation, $X_i \in X$ represents the vector of respondent covariates.[15]

This quantity of interest allows me to test my H_2 : I expect that Female respondents will be more likely to choose female politicians as credible. and my H_3 : I expect Republican respondents to be less likely to choose female politicians as credible. Since these two hypotheses concern the outcome **Y1** conditional on a specific set of respondent characteristics, I calculate the conditional AMCE based on respondents' gender and political party affiliation, respectively. I then determine the probability of a profile with the attribute of Female being chosen as credible²¹ given these respondent characteristics.

In particular, I measure the probability of a profile with the l attribute of Female being chosen as more credible as compared to the t_0 baseline, conditional on the respondent covariate of gender, specifically the respondent characteristic of Female. This will enable me to test my H_2 , and will allow me to determine if female politicians are perceived as more credible overall by female respondents.

Further, I measure the probability of a profile with the l attribute of Female being chosen as more credible as compared to the t_0 baseline, conditional on the respondent covariate of political party affiliation and the specific respondent characteristic of Republican. This enables me to test my H_3 , and allows me to determine if female politicians are perceived as less credible by Republican respondents.

²¹When compared to the baseline profile detailed in previous sections.

5 Results

Under what conditions do voters find female politicians credible? My conjoint analysis reveals a number of key findings. Foremost, voters did not find female politicians less credible than male politicians, lending support to the idea of nuanced demand. Female respondents did indeed prefer female politicians, and were statistically more likely to choose a female politician as credible.

Nevertheless, the remainder of my conjoint data largely yields statistically insignificant results. Republican respondents were not less likely to choose the female politician as credible. A female politician with the policy priority of Healthcare was not more likely to be chosen as credible, as compared to the baseline politician profile, and a female politician with the policy priority of Foreign Policy was not less likely to be chosen as credible.

For the purposes of my analysis, I dropped all blank responses, thus arriving at a final sample size of N = 463. Overall, respondents viewed a total of 4,630 politician profiles, which were displayed in 2,315 pairs. As discussed in Chapter 4, attributes were completely randomized, which allowed me to calculate the average effect of individual treatment components, as well as the effect of respondent covariates.

My results can be divided into five sections relating to each of my hypotheses: the causal effect of politician gender on overall credibility, the causal effect of politician gender on overall credibility conditional on respondent gender; the causal effect of politician gender on credibility conditional on respondent political party affiliation; the causal effect of politician gender on competence, trustworthiness, and caring ratings; and the interaction between politician gender and politician policy priority and this interaction's causal effect on credibility. An analysis of each effect is detailed in subsequent sections.

5.1 Are Female Politicians Perceived as Less Credible?

In my H_1 , I theorized that voters' demand for female politicians is indeed nuanced, and that female politicians are not perceived as less credible overall than male politicians. My findings lead me to reject the null hypothesis H_0 of my H_1 at a 95 percent level of confidence, as the probability of **Y1** did not significantly differ (either positively or negatively) when the baseline profile was changed from Male to Female.



Figure 4: Average Marginal Component Effects for All Attributes

Figure 4 illustrates my overall result: the attribute of gender did not have a statistically significant impact on a profile being chosen as more or less credible, as compared to the baseline profile. In the above plot, the center line represents the baseline, and the x-axis denotes the change in probability of a politician being chosen as more credible. The dots represent the estimated change in probability of a politician profile given each attribute at a 95 percent confidence interval. In sum, this plot depicts that, while gender was not a statistically significant factor in respondents' choice for outcome of interest **Y1**, other attributes were. I discuss my analysis in further detail below.

To test my H_1 , I employed the Average Marginal Component Effect (AMCE) proposed in Hainmueller et.al (2014) and discussed in Chapter 4 of my thesis. [15] This effect represents the probability of a profile being chosen given a change in each attribute as compared to the baseline. After clustering for standard errors and running my analysis, I find that, when the Gender attribute was changed from the baseline of Male to Female, respondents overall were not significantly more or less likely to choose the profile as credible.

Table 3 details the average marginal component effects for all attributes as compared to the baseline. As per this table, the probability of a profile with the Gender attribute

Average Marginal Component Effects						
Attribute	Level	AMCE	SE	Z	Pr(> z)	
				value		
Ethnicity	Asian	-0.005	0.024	-0.206	8.37e-01	
Ethnicity	African American ²²	0.054	0.023	2.345	1.90e-02	
Ethnicity	Hispanic or Latino	-0.015	0.023	-0.640	5.22e-01	
Ethnicity	Native American ²³	0.450	0.023	1.916	5.53e-02	
Gender	Female	0.026	0.015	1.739	8.21e-02	
Policy Priority	Foreign Policy	-0.109	0.019	-5.724	1.04e-08	
Policy Priority	Healthcare	0.012	0.018	0.649	5.20e-01	
Political Party	Republican	-0.039	0.020	-1.950	5.59e-02	
Political Party	Democrat	0.039	0.020	-1.949	5.12e-02	
Years of Experience	10 years	0.084	0.017	4.790	1.67e-06	
Years of Experience	4 years	-0.087	0.018	-4.774	1.80e-06	

Table 3: Table of the Average Marginal Component Effects of All Attributes.

of Female being chosen over the baseline profile was 0.026 (SE=0.014), a statistically insignificant result. However, respondents were statistically more likely to choose a profile of a Black or African American politician as more credible, with a probability of 0.054 (SE=0.022). Further, respondents were statistically less likely to choose a profile of a politician with the policy priority of Foreign Policy. For the attribute of Years of Experience, respondents preferred politicians with more experience, and were statistically more likely to choose a politician with more experience as more credible, which was an expected result.

In sum, these results lead me to reject the null hypothesis H_0 of my H_1 , as a simple causal effect between a politician's gender and credibility does not exist. I find that gender plays a statistically insignificant role in determining a politician's credibility. Moreover, I discover that respondents are statistically more likely to choose African-American politicians and politicians with experience as credible, and that they are also statistically less likely to choose politicians with a policy priority of Foreign Policy as credible.

5.2 Are Female Respondents More Likely to Find Female Politicians Credible?

In my H_2 , I theorized that female respondents would be more likely than male respondents to rate a female politician as credible. I expected this result due to both past research (e.g. Hayes and Lawless 2016) finding that female respondents preferred female politicians, and my nuanced demand-side approach. I find that the correlation between female respondents and female politicians' credibility was statistically significant, as female respondents were statistically more likely to choose female politicians as credible, as compared to male politicians. Thus, I reject the null hypothesis H_0 of my H_2 , at a 95 percent level of confidence. A summary of my findings is detailed in Figure 5.



Figure 5: Average Marginal Effect of the Attribute of Politician Gender Conditional on Respondent Gender

In the above plot, the x-axis again represents the change in probability of a politician being chosen as credible for forced-choice outcome of interest Y1. The left side of the plot illustrates the change in probability for Y1 if the baseline politician Gender attribute was switched from Male to Female for female respondents, while the right side depicts the same change for male respondents.

To achieve these results, I employed the Conditional Average Marginal Component Effect.[15] This effect represents the change in probability of a profile being chosen as more credible given a change in an attribute, but conditional on a respondent covariate. Specifically, I calculated the change in probability of a profile being chosen as credible given a change in the attribute of Gender from the baseline of Male to Female, and given the respondent covariate of Gender. My findings are further detailed in Table 3.

Conditional Average Marginal Component Effect- Respondent Gender Covariate						
Covariate	Attribute	Level	AMCE	SE	Z	Pr(> z)
					value	
Female Respondent	Gender	Female	0.057	0.020	2.845	0.005
Male Respondent	Gender	Female	-0.010	0.021	-0.459	0.646

Table 4: Table of the Average Marginal Component Effect Conditional on RespondentGender Covariate

The Conditional AMCEs for both female and male respondents are illustrated in Table 4. I find that, while the attribute of Gender did not have a statistically significant effect on outcome **Y1** for male respondents, female respondents were more likely to choose female politicians as credible at statistically significant levels. As depicted in the table, the probability of male respondents choosing a female politician as more credible than the baseline was -0.010 (SE=0.021). However, the probability of female respondents choosing a female politician as more (SE=0.020), a statistically significant result.

The results of this analysis lead me to reject the null hypothesis H_0 of my H_2 , which theorizes that female respondents were more likely to rate female politicians as credible, as compared to the baseline male politician. In sum, the attribute of Gender had a positive causal effect on outcome **Y1** regarding overall credibility for female respondents. Interestingly, the opposite was true for male respondents, who were not statistically more or less likely to rate female politicians as credible (compared to the male baseline).

5.3 Are Republican Respondents Less Likely to Find Female Politicians Credible?

My hypothesis H_3 concerns the causal effect of the attribute of Gender on credibility, conditional on respondents' political party affiliation. I hypothesized that, due to the larger gender imbalance among Republican House members,²⁴ Republican respondents would be less likely to choose female politicians as credible. I find that the correlation between Republican respondents and female politicians' credibility was statistically insignificant, as Republican respondents were not statistically less likely to rate female politicians as credible, as compared to male politicians. Thus, I fail to reject the null

 $^{^{24}}$ As discussed at length in Chapter 3 of this thesis.

hypothesis H_0 of my H_3 , at a 95 percent level of confidence. A summary of my findings is detailed in Figure 5.



Figure 6: Average Marginal Effect of the Attribute of Politician Gender Conditional on Respondent Political Party Affiliation

In the above figure, the x-axis on each plot once again denotes the change in probability of a politician being chosen as more credible given a change in the selected attribute of Gender from the baseline of Male to Female. The dots on each plot represent this change in probability, conditional on respondents' political party affiliation, at a 95 percent confidence interval. As per the respondent covariate pretreatment questions detailed in Chapter 4, respondents had the choice to identify as 'Independent', 'Lean Democrat', 'Lean Republican', 'Not very strong Democrat', 'Not very strong Republican', 'Strong Democrat', or 'Strong Republican.' However, I collapsed the categories into Democrat, Independent, and Republican for simplicity.

Conditional Average Marginal Component Effect- Respondent Political Party Covariate						
Covariate	Attribute	Level	AMCE	SE	Z	Pr(> z)
					value	
Democrat	Gender	Female	0.061	0.023	2.65	0.008
Independent	Gender	Female	0.001	0.027	0.333	0.739
Republican	Gender	Female	-0.009	0.026	-0.347	0.728

Table 5: Table of the Average Marginal Component Effect Conditional on RespondentPolitical Party Covariate

To achieve these results, I calculated the AMCE conditional on the respondent covariate of Political Party Affiliation for the specific characteristics outlined above. Table 5 provides a summary of my results. Moreover, I find that the attribute of Gender did not have a statistically significant impact on the probability (either positive or negative) of a profile being chosen as credible for neither Independent nor Republican respondents.[15]

Nevertheless, for the respondent characteristic of Democrat, the attribute of Gender had a statistically significant positive impact on the probability of a profile being chosen as credible. In particular, Democrat respondents were more likely to choose a profile of a female politician as credible, with a probability of 0.061 (SE=0.023).

Thus, I fail to reject the null H_0 of my hypothesis H_3 , as Republican respondents did not find female politicians to be less credible at statistically significant levels. Overall, these findings are unexpected, as I hypothesized that, due to the both conservative values and the larger gender imbalance among Republican House members,²⁵ Republicans had a bias against female politicians.

5.4 Are Female Politicians Rated Similarly to Male Politicians?

My H_4 theorized that female politicians' gender would not have an impact on their ratings for each individual dimension of credibility: competence, trustworthiness, and caring. In particular, I expected that, despite traditional gender-based stereotypes, female politicians would be rated no higher than male politicians on caring, and no lower on competence. In line with many modern studies (e.g. Hayes and Lawless 2016), I expected this result due to the subtle nature of contemporary trait-based stereotypes. My results largely align with my H_4 , as I found that respondents were not significantly likely to rate female politicians as higher or lower on any of the three dimensions, as compared to the baseline male politician. Thus, I reject the null hypothesis H_0 of my H_4 at a 95 percent level of confidence. [16]

25



To test this hypothesis, I employed AMCE on outcome measures **Y2-Y7**. The results of this calculation are represented in the above plots, with competence, trust-worthiness, and caring presented left to right. The x-axis represents the change in probability of a politician being rated higher, given a change from the baseline attribute of Male to Female, on each individual dimension, and the dots represent this probability at a 95 percent confidence interval. My results are detailed in a table below.[15]

Average Marginal Component Effect- Credibility Dimension Ratings						
Dimension	Attribute	AMCE	SE	z value	Pr(> z)	
Competence	Female	-0.021	0.031	-0.660	0.510	
Trustworthiness	Female	0.031	0.147	0.147	0.293	
Caring	Female	0.034	0.032	1.050	0.293	

Table 6: Table of the Average Marginal Component Effect for Competence, Trustworthiness, and Caring

I find that a politician with the attribute of Female was not statistically more or less likely to be rated higher on any of the three dimensions, as compared to the baseline profile with the attribute of Male. A female politician was -0.021 (SE=0.031) less likely to be rated as competent, 0.031 (SE=0.147) more likely to be rated as trustworthy, and 0.034 more likely to be rated as caring than the male politician, yet none of these reach levels of statistical significance.

Thus, I reject the null hypothesis H_0 of my H_4 , as female politicians' ratings for each of the dimensions of credibility did not significantly differ from ratings given to male politicians.

5.5 Does Female Politicians' Credibility Differ Depending on Policy Priority?

In my H_5 , I theorized that the credibility of female politicians was dependent on two factors: their gender and their policy priority. I hypothesized that, due to gender traitbased stereotypes and the caring dimension of credibility, female politicians would be found more credible with the policy priority of Healthcare, but less credible with the policy priority of Foreign Policy. My findings indicate that the interaction between gender and policy priority did not have a significant impact on outcome **Y1**. In sum, female politicians were not statistically more likely to be found as credible with the policy priority of Healthcare (as compared to the baseline of Male and Economic Policy). Additionally, female politicians were not statistically less likely to be found as credible with the policy priority of Foreign Policy. Thus, I fail to reject the null hypothesis H_0 of my H_5 at a 95 percent level of confidence.



Figure 7: Average Component Interaction Effect Between the Attributes of Politician Gender and Politician Policy Priority

This effect is illustrated in Figure 7. As with the previous plots, the x-axis represents the change in probability of a politician being chosen as credible, and the dots represent this probability given the interaction of my two chosen attributes at a 95 percent confidence interval. To test my H_5 , I calculated the average component interaction effect (ACIE), which enabled me to measure the interaction between the two attributes of politician gender and politician policy priority, and this interaction's causal effect on credibility. The results of this calculation are depicted given the gender attribute of Female and the policy priority of either Healthcare or Foreign Policy.[15]

Average Component Interaction Effects					
Attribute	Level	ACIE	SE	Z	Pr(> z)
				value	
Gender:Policy Priority	Female:Foreign	-0.053	0.036	-1.480	0.139
	Policy				
Gender:Policy Priority	Female:Healthcare	0.145	0.037	0.399	0.690

Table 7: Table of the Average Component Interaction Effect Between Politician Gender and Politician Policy Priority.

Table 7 details the results of my analysis. As illustrated, the interaction between the attributes of gender and policy priority did not produce a statistically significant causal effect on outcome **Y1**. The probability of a politician profile with the attributes of Female and Healthcare being chosen as more credible compared to the baseline was 0.145 (SE=0.036), which was not statistically significant. Further, the probability of a politician profile with the attributes of Female and Foreign Policy being chosen as less credible, as compared to the baseline was not statistically significant, at -0.053 (SE=0.036).

The results of this analysis lead me to fail to reject the null hypothesis H_0 of my H_5 . Female politicians emphasizing stereotypically feminine policy traits²⁶ were not statistically more likely to be found as credible. Moreover, female politicians emphasizing stereotypically masculine policy traits²⁷ were not statistically less likely to be found as credible.

5.6 Summary of Results

In sum, I find that female politicians were not statistically more or less likely to be chosen as credible, as compared to the baseline profile. Although I found that female respondents were statistically more likely to choose a female politician as credible, Republican respondents were not statistically more or less likely to choose a female

27

²⁶

politician as credible, in spite of my H_3 . I also find that female politicians were not significantly more or less likely than male politicians to be rated higher on each of the dimensions of credibility. Finally, I find that the interaction between gender and policy priority did not have a statistically significant impact on respondents choosing a politician as credible. A discussion of the implications of these findings can be found in Chapter 6.

6 Discussion

In this study, I attempted to explore demand-side nuances through credibility. I find that voters' perceptions of female politicians' credibility is indeed nuanced, but that these nuances largely align with existing literature (e.g. Hayes and Lawless 2016). Overall, my results lend support to recent demand-side literature, in that female politicians are not at a disadvantage, and that the modern influence of gender-based trait and issue stereotypes is subtle. I detail an explanation of each effect below, as well as the implications of my findings. [16]

6.1 Female Politicians and Credibility

As discussed in Chapter 5.1, I find that, when a profile's attribute was changed from the baseline of Male to Female, respondents were not statistically more or less likely to choose the profile as credible. This result led me to reject the null of my H_1 , which theorized that voters' demand for female politicians is indeed nuanced, and that the relationship between female politicians and credibility is not always negative, in spite of conventional expectations. These results largely align with current literature (e.g. Hayes and Lawless 2016), which finds that female politicians are not at an overall disadvantage throughout the electoral process. We now know that this effect extends to credibility, as female politicians are not less likely than male politicians to be found as credible.

6.2 Female Respondents and Female Politicians' Credibility

I also find that female respondents are more likely to choose female politicians as credible at statistically significant levels, and that male respondents are not significantly more or less likely to choose a female politicians as credible. This result again aligns with existing literature (e.g. Hayes and Lawless 2016; Cassese and Holman 2017) which finds that, while male respondents do not have a preference regarding a politician's gender, female respondents are indeed more likely to prefer a female politician. We now know that female respondents also are more likely to not only vote for a female politician, but find them more credible. [5] [16]

6.3 Republican Respondents and Female Politicians' Credibility

Further, I find that Republican respondents are not significantly less likely to choose a female politician as credible, thus leading me to fail to reject the null of my H_3 . In many ways, this result was surprising, as I expected that Republican respondents would harbor bias against female politicians, and that this effect would extend to credibility. I expected this result in part due to the smaller number of Republican female politicians in Congress, and in part due to the more conservative values held by Republican party members. However, I also found that Democrat respondents were significantly more likely to choose a female politician as credible, as compared to a male politician. Given this result, and the result of my H_2 , it is possible that more women are Democrats, thus both female respondents and Democrats are more likely to choose a female politician as credible. In line with this effect, both male and Republican respondents are not significantly less likely to choose a female politician as credible. We can arrive at the conclusion, therefore, that men and Republicans are not biased against female politicians, and that the small number of female Republican members of Congress may in part be due to a smaller proportion of women in the Republican Party.

6.4 Female Politicians' Ratings on Credibility Dimensions

For my H_4 , I theorized that female politicians' ratings on each of the dimensions of credibility would not significantly differ from ratings given to male politicians. In particular, I expected that female politicians would be rated no lower than male politicians on the competence dimension, and no higher than male politicians on the caring dimension. In sum, I find that female politicians' ratings did not differ significantly from male politicians' ratings, and that this effect extended to each individual dimension. I expected this result due to modern studies (e.g. Hayes and Lawless 2016; Cassese and Holman 2017) finding that the modern influence of gender-based trait stereotypes was subtle. In spite of these results, I wanted to conduct a closer examination of the dimensions of credibility specifically. However, I find that my results align with these modern studies, thus it is evident that the modern influence of stereotypes is indeed subtle. Female politicians are no more likely to be found as caring than male politicians, and no less likely to be found as competent than male politicians. [5] [16]

6.5 Female Politicians, Policy Priority, and Credibility

My H_5 concerned the interaction between politician gender and politician policy priority, and my results lead me to fail to reject the null of this hypothesis. In line with past literature concering the effects of conventional issue-based stereotypes (e.g. Sanbonmatsu and Dolan 2009), I anticipated that female politicians would be found as more credible with policy priorities relating to traditional feminine stereotypes, and less credible with policy priorities relating to traditional masculine stereotypes. In particular, I expected female politicians to be more likely to be chosen as credible with a policy priority of Healthcare, and less likely to be chosen as credible with a policy priority of Foreign Policy. However, I find that female politicians' probability of being chosen as credible did not significantly differ from that of male politicians, even with different policy priorities. In many ways, this result is surprising, as I expected the nuances of voters' demand for female politicians to be dependent on specific political issues. Nevertheless, my results confirm modern literature (e.g. Hayes and Lawless 2016), and show that the subtle effect of issue-based stereoypes also extend to credibility. [29] [16]

6.6 Limitations

In spite of my results, it is evident that representation disparity persists. My results may not align with the present state of women in politics, in part, due to the limitations of my study. Foremost, a recent study (Leeper, Hobolt, and Tilley 2019) emphasizes limitations on the conjoint method, specifically on its causal quantities of interest. In particular, it is of interest that AMCE, ACIE, and conditional AMCE are limited, and cannot be used descriptively. Thus, these quantities cannot be used to compare preferences within subgroups. Although female respondents are more likely to choose a female politician as credible, we cannot compare their preferences to those of male respondents. [24] These limitations also arise from my use of hypothetical politicians in a survey environment. Although the conjoint design enhances realism, and thus, internal validity, surveys do not reflect real-world decision-making processes (Hainmueller 2014). In particular, voters are bombarded with political candidates and ads, and thus base their political decisions on more than just five attributes. Although respondents may not find hypothetical female politicians less credible, it is possible that their real decisions differ from decisions made in this short experiment. To increase internal validity, it may be useful to field several versions of the survey; one with the conjoint paired profile model, and one with a descriptive vignette. Comparing results from the vignette version and the paired profile version would then allow me to combat these limitations. Further, this sample, although nationally representative, is just one slice of the U.S. population at one single given time. [15]

Another limitation also arises from my forced-choice credibility question (outcome of interest Y1). Respondents may have different perceptions of the definition of credibility, and their answers may have varied accordingly. In future studies, it may be helpful to explicitly define credibility so that respondents' answers are on the same scale.

A final limitation of my study concerns survey satisficing and respondents' answers. When reviewing data, I noticed that some respondents did not spend much time on the survey, and that many did not answer questions, particularly the rating-based outcome measures. This effect can be in part attributed to respondents' motivation. Combatting this limitation is difficult, but adding a qualitative aspect of this study (e.g. a case study of a real politician or an interview-style survey) would add realism and contribute to a more thorough evaluation of current attitudes towards female politicians.

6.7 Implications

My study attempts to investigate the nuances of voters' demand for female politicians particularly the conditions under which they find female politicians credible. I largely confirm existing literature and extend their discoveries to perceptions of credibility in a conjoint experiment. Overall, my findings paint a positive picture of the demand side. I find that female respondents are more likely to choose female politicians as credible, and that no groups of respondents are less likely to choose a female politician as credible, when compared to a male politician. In the context of this study, I further find that the modern influence of gender trait-based stereotypes is not significant, and that issue-based stereotypes do not have an effect on perceptions of credibility.

Despite this positivity, it is evident that disparity in Congress persists. Indeed, it is troubling that the residents of thirty-one states do not have female representation in the Senate, and the proportion of women in Congress remains less than half of the proportion of women in the United States. Thus, it is also apparent that continued work must be done to isolate the cause of disparity. In particular, a modern study on the supply-side–particularly on the contemporary gender gap in political ambition, may be in order. [6]

However, society as a whole must take concrete steps to address the root of the issue. We cannot elect more female politicians if we do not tell women they can, and if we do not vote to support these convictions. The solution to disparity may not lie in research, but America and her willingness to create change.

And to all the little girls...never doubt that you are valuable and powerful and deserving of every chance and opportunity in the world to pursue and achieve your own dreams.

-Hillary Clinton

References

- Deborah Alexander and Kristi Andersen. Gender As a Factor in the Attribution of Leadership Traits. 3. 1993, pp. 527-545. DOI: https://www.jstor.org/ stable/448946.
- R.L. Applbaum and K.W. Anatol. Dimensions of Credibility: A test for reproducibility. 3. 1973, pp. 231-237. URL: https://psycnet.apa.org/record/1974-20850-001.
- [3] Kirk Bansak et al. The Number of Choice Tasks and Survey Satisficing in Conjoint Experiments. 1. 2018, pp. 112–119. DOI: https://doi.org/10.1017/pan. 2017.40.
- [4] Timothy Bledsoe and Mary Herring. Victims of Circumstances: Women in Pursuit of Political Office. 1. 1990, pp. 213-223. URL: https://www.jstor.org/ stable/1963638.
- [5] Erin C. Cassese and Mirya R. Holman. Party and Gender Stereotypes in Campaign Attacks. 3. 2017, pp. 785–807. DOI: https://doi.org/110.1007/s11109-017-9423-7.
- [6] Center for American Women and Politics. URL: https://www.cawp.rutgers. edu/.
- [7] Alexander Coppock and Oliver A. McClellan. Validating the Demographic, Political, Psychological, and Experimental Results Obtained from a New Source of Online Survey Respondents. 2019, pp. 1–14. DOI: https://doi.org/10.1017/ pan.2017.40.
- [8] Edmond Costantini. Political Women and Political Ambition: Closing the Gender Gap. 3. 1990, pp. 741–770. DOI: https://doi.org/10.2307/2111397.
- [9] Richard L. Fox and Jennifer L. Lawless. Entering the Arena? Gender and the Decision to Run for Office. 2. 2004, pp. 264-280. DOI: https://doi.org/10. 1111/j.1540-5907.2010.00484.x.
- [10] Richard L. Fox and Jennifer L. Lawless. Gender Stereotypes and the Perception of Male and Female Candidates. 1. 1993, pp. 119–147. URL: https://www.jstor. org/stable/2111526.

- Richard L. Fox and Jennifer L. Lawless. Gendered Perceptions and Political Candidacies: A Central Barrier to Women's Equality in Electoral Politics. 1. 2011, pp. 59-73. DOI: https://doi.org/10.1111/j.0092-5853.2004.00069.x.
- [12] Richard L. Fox and Jennifer L. Lawless. Why Are Women Still Not Running for Public Office? 16. 2008, pp. 1-20. URL: https://www.brookings.edu/wpcontent/uploads/2016/06/05_women_lawless_fox.pdf.
- [13] Michelle Funk and Calvin R. Coker. She's Hot, for a Politician: The Impact of Objectifying Commentary on Perceived Credibility of Female Candidates. 4. 2016, pp. 455-473. DOI: https://doi.org/10.1080/10510974.2016.1196380.
- Jens Hainmueller, Dominik Hangartner, and Teppei Yamamoto. Validating Vignette and Conjoint Survey Experiments Against Real-World Behavior. 8. 2015, pp. 2395-2400. DOI: https://doi.org/10.1073/pnas.1416587112.
- [15] Jens Hainmueller and Daniel J. Hopkins. Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments. 1.
 2014, DOI=https://doi.org/10.1093/pan/mpt024, pp. 1–30.
- [16] Danny Hayes and Jennifer L. Lawless. Women on the Run: Gender, Media, and Political Campaigns in a Polarized Era. New York, NY: Cambridge University Press, 2016.
- [17] Mirya Holman et al. Terrorism, Gender, and the 2016 U.S. Presidential Election. 2018.
- [18] Leonie Huddy and Naya Terkildsen. Gender Stereotypes and the Perception of Male and Female Candidates. 1. 1993, pp. 119–147. DOI: https://www.jstor. org/stable/2111526.
- [19] Jeffrey M. Jones. Americans Continue to Embrace Political Independence. 2018. URL: https://news.gallup.com/poll/245801/americans-continueembrace-political-independence.aspx.
- [20] Elaine Kamarck. 2018: Another 'Year of the Woman'. Brookings, 2018. URL: https://www.brookings.edu/blog/fixgov/2018/11/07/2018-anotheryear-of-the-woman/.
- [21] Sarah Kliff. The Research is Clear: Electing More Women Changes How Government Works. Vox, 2017. URL: https://www.vox.com/2016/7/27/12266378/ electing-women-congress-hillary-clinton.

- [22] Jeffrey W. Koch. Candidate Gender and Assessments of Senate Candidates. 1.
 1999, pp. 84–96. DOI: https://doi.org/10.1177/1065912908322416.
- [23] Jennifer L. Lawless. Women, War, and Winning Elections: Gender Stereotyping in the Post-September 11th Era. 3. 2004, pp. 479-490. URL: https://www.jstor. org/stable/3219857.
- [24] Thomas J. Leeper, Sara B. Hobolt, and James Tilley. Measuring Subgroup Preferences in Conjoint Experiments. 2018. URL: https://s3.us-east-2.amazonaws.com/tjl-sharing/assets/MeasuringSubgroupPreferences.pdf.
- [25] James C. McCroskey and Jason J. Teven. Goodwill: A reexamination of the construct and its measurement. 1. 1999, pp. 90-103. DOI: https://doi.org/10. 1080/03637759909376464.
- [26] James C. McCroskey and Thomas J. Young. Ethos and Credibility: The construct and its measurement after three decades. 1. 1981, pp. 24–34. DOI: https://doi. org/10.1080/10510978109368075.
- [27] Claire Cain Miller. The Problem for Women Is not Winning. It's Deciding to Run. 2016. URL: https://www.nytimes.com/2016/10/25/upshot/theproblem-for-women-is-not-winning-its-deciding-to-run.html.
- [28] Bryan K. Orme. Getting Started with Conjoint Analysis: Strategies for Product Design and Pricing Research. Second Edition. Silicon Valley, CA: Research Publishers, 2010.
- [29] Kira Sanbonmatsu and Kathleen Dolan. Do Gender Stereotypes Transcend Party?
 3. 2008, pp. 485–494. DOI: https://doi.org/10.1177/1065912908322416.
- [30] Anton Strezhnev et al. Conjoint Survey Design Tool.
- [31] Jason J. Teven. An Examination of Perceived Credibility of the 2008 Presidential Candidates. 4. 2008, pp. 383-400. URL: http://citeseerx.ist.psu.edu/ viewdoc/download?doi=10.1.1.615.8086&rep=rep1&type=pdf.
- [32] U.S. Census Bureau QuickFacts. 2010. URL: https://www.census.gov/quickfacts/ fact/table/US/LFE046217.

Block 9

Before you proceed to the survey, please complete the CAPTCHA below.



Block 2

Thank you for taking part in this study.

The objective of this research is to better understand attitudes toward U.S. politics. The survey should take approximately 10 minutes of your time.

We expect no direct risks or discomfort to you from taking this survey. You may be unwilling to answer certain questions. If that is the case, you may skip the question.

You may terminate your participation in this survey at any time.

Your confidentiality and anonymity will be maintained at all times. *The anonymous nature of the survey will mean that we will not be able to trace your answers to your identity.*

If you agree to these terms and if you are 18 years of age or older, please click the Consent option below to continue to the survey.

- O I consent to these terms and I am 18 years of age or older.
- O I do not consent to these terms and/or I am not 18 years of age or older.

Pretreatment Questions

What is your gender?

O Male

O Female

What is your age?

O 18-24 years old

- O 25-34 years old
- O 35-44 years old
- O 45-54 years old

- O 55-64 years old
- O 65-74 years old
- O 75 years or older

What ethnicity do you associate yourself most closely with?

Ο	White
\sim	vvriite

- O Black or African American
- O American Indian or Alaska Native
- O Asian
- O Native Hawaiian or Pacific Islander
- O Other

What is the highest level of education you have achieved?

O None

- O Some high school
- O Completed high school
- O Some college
- O Completed college
- O Some post-graduate studies
- O Completed post-graduate studies

Would you call yourself a strong Democrat or a not very strong Democrat? Would you call yourself a strong Republican or a not very strong Republican? Do you think of yourself as closer to the Democratic or the Republican Party?

- O Strong Democrat
- O Not very strong Democrat
- O Lean Democrat
- O Independent
- O Lean Republican
- O Not very strong Republican
- O Strong Republican

Conjoint

You are being asked to evaluate the qualities of two politicians in the United States House of Representatives.

	Politician A	Politician B
\${e://Field/F-1-1}	\${e://Field/F-1-1-1}	\${e://Field/F-1-2-1}
\${e://Field/F-1-2}	\${e://Field/F-1-1-2}	\${e://Field/F-1-2-2}

\${e://Field/F-1-3}	\${e://Field/F-1-1-3}	\${e://Field/F-1-2-3}
\${e://Field/F-1-4}	\${e://Field/F-1-1-4}	\${e://Field/F-1-2-4}
\${e://Field/F-1-5}	\${e://Field/F-1-1-5}	\${e://Field/F-1-2-5}

Please read the descriptions of the politicians carefully. Please indicate which of the two politicians you find to be more credible.

O Politician A

O Politician B

If competence is understood to mean the level of expertise an individual possesses, how would you rate each politician?

	Extremely incompetent	Somewhat incompetent	Neither competent nor incompetent	Somewhat competent	Extremely competent
Politician A	0	0	0	0	Ο
Politician B	0	0	0	0	0

If trustworthiness is understood to mean the degree of trust you have in an individual, or how honest you perceive them to be, how would you rate each politician?

	Extremely untrustworthy	Somewhat untrustworthy	Neither trustworthy nor untrustworthy	Somewhat trustworthy	Extremely trustworthy
Politician A	0	Ο	Ο	Ο	Ο
Politician B	0	Ο	Ο	0	Ο

If caring is understood to mean the degree to which an individual cares about the issues that matter to you, how would you rate each politician?

	Extremely uncaring	Somewhat uncaring	Neither caring nor uncaring	Somewhat caring	Extremely caring
Politician A	0	0	0	Ο	Ο
Politician B	Ο	Ο	0	Ο	Ο

Conjoint - task 2

You are being asked to evaluate the qualities of two politicians in the United States House of Representatives.

	Politician A	Politician B
\${e://Field/F-2-1}	\${e://Field/F-2-1-1}	\${e://Field/F-2-2-1}
\${e://Field/F-2-2}	\${e://Field/F-2-1-2}	\${e://Field/F-2-2-2}
\${e://Field/F-2-3}	\${e://Field/F-2-1-3}	\${e://Field/F-2-2-3}
\${e://Field/F-2-4}	\${e://Field/F-2-1-4}	\${e://Field/F-2-2-4}
\${e://Field/F-2-5}	\${e://Field/F-2-1-5}	\${e://Field/F-2-2-5}

Please read the descriptions of the politicians carefully. Please indicate which of the two politicians you find to be more credible.

O Politician A

O Politician B

If competence is understood to mean the level of expertise an individual possesses, how would you rate each politician?

	Extremely incompetent	Somewhat incompetent	Neither competent nor incompetent	Somewhat competent	Extremely competent
Politician A	Ο	0	0	0	Ο
Politician B	0	0	0	0	0

If trustworthiness is understood to mean the degree of trust you have in an individual, or how honest you perceive them to be, how would you rate each politician?

	Extremely untrustworthy	Somewhat untrustworthy	Neither trustworthy nor untrustworthy	Somewhat trustworthy	Extremely trustworthy
Politician A	0	Ο	Ο	Ο	Ο
Politician B	0	0	0	0	0

If caring is understood to mean the degree to which an individual cares about the issues that matter to you, how would you rate each politician?

		Neither				
	Extremely uncaring	Somewhat uncaring	caring nor uncaring	Somewhat caring	Extremely caring	
Politician A	0	Ο	0	Ο	Ο	
Politician B	Ο	0	0	0	0	

conjoint task 3

You are being asked to evaluate the qualities of two politicians in the United States House of Representatives.

	Politician A	Politician B
\${e://Field/F-3-1}	\${e://Field/F-3-1-1}	\${e://Field/F-3-2-1}
\${e://Field/F-3-2}	\${e://Field/F-3-1-2}	\${e://Field/F-3-2-2}
\${e://Field/F-3-3}	\${e://Field/F-3-1-3}	\${e://Field/F-3-2-3}
\${e://Field/F-3-4}	\${e://Field/F-3-1-4}	\${e://Field/F-3-2-4}
\${e://Field/F-3-5}	\${e://Field/F-3-1-5}	\${e://Field/F-3-2-5}

Please read the descriptions of the politicians carefully. Please indicate which of the two politicians you find to be more credible.

O Politician A

O Politician B

If competence is understood to mean the level of expertise an individual possesses, how would you rate each politician?

	Extremely incompetent	Somewhat incompetent	Neither competent nor incompetent	Somewhat competent	Extremely competent
Politician A	0	0	0	0	Ο
Politician B	0	0	0	0	0

If trustworthiness is understood to mean the degree of trust you have in an individual, or how honest you perceive them to be, how would you rate each politician?

	Extremely untrustworthy	Somewhat untrustworthy	Neither trustworthy nor untrustworthy	Somewhat trustworthy	Extremely trustworthy
Politician A	0	Ο	Ο	Ο	Ο
Politician B	Ο	0	0	Ο	Ο

If caring is understood to mean the degree to which an individual cares about the issues that matter to you, how would you rate each politician?

	Extremely uncaring	Somewhat uncaring	Neither caring nor uncaring	Somewhat caring	Extremely caring
Politician A	Ο	Ο	0	Ο	Ο
Politician B	0	0	0	0	0

conjoint task 4

You are being asked to evaluate the qualities of two politicians in the United States House of Representatives.

	Politician A	Politician B
\${e://Field/F-4-1}	\${e://Field/F-4-1-1}	\${e://Field/F-4-2-1}
\${e://Field/F-4-2}	\${e://Field/F-4-1-2}	\${e://Field/F-4-2-2}
\${e://Field/F-4-3}	\${e://Field/F-4-1-3}	\${e://Field/F-4-2-3}
\${e://Field/F-4-4}	\${e://Field/F-4-1-4}	\${e://Field/F-4-2-4}
\${e://Field/F-4-5}	\${e://Field/F-4-1-5}	\${e://Field/F-4-2-5}

Please read the descriptions of the politicians carefully. Please indicate which of the two politicians you find to be more credible.

O Politician A

O Politician B

If competence is understood to mean the level of expertise an individual possesses, how would you rate each politician?

	Extremely incompetent	Somewhat incompetent	Neither competent nor incompetent	Somewhat competent	Extremely competent
Politician A	0	0	0	0	Ο
Politician B	0	0	0	0	0

If trustworthiness is understood to mean the degree of trust you have in an individual, or how honest you perceive them to be, how would you rate each politician?

	Extremely untrustworthy	Somewhat untrustworthy	Neither trustworthy nor untrustworthy	Somewhat trustworthy	Extremely trustworthy
Politician A	Ο	Ο	Ο	Ο	0

	Neither trustworthy				
	Extremely untrustworthy	Somewhat untrustworthy	nor untrustworthy	Somewhat trustworthy	Extremely trustworthy
Politician B	Ο	Ο	Ο	Ο	Ο

If caring is understood to mean the degree to which an individual cares about the issues that matter to you, how would you rate each politician?

	Extremely uncaring	Somewhat uncaring	Neither caring nor uncaring	Somewhat caring	Extremely caring
Politician A	Ο	Ο	0	Ο	Ο
Politician B	0	0	0	Ο	0

conjoint task 5

You are being asked to evaluate the qualities of two politicians in the United States House of Representatives.

	Politician A	Politician B
\${e://Field/F-5-1}	\${e://Field/F-5-1-1}	\${e://Field/F-5-2-1}
\${e://Field/F-5-2}	\${e://Field/F-5-1-2}	\${e://Field/F-5-2-2}
\${e://Field/F-5-3}	\${e://Field/F-5-1-3}	\${e://Field/F-5-2-3}
\${e://Field/F-5-4}	\${e://Field/F-5-1-4}	\${e://Field/F-5-2-4}
\${e://Field/F-5-5}	\${e://Field/F-5-1-5}	\${e://Field/F-5-2-5}

Please read the descriptions of the politicians carefully. Please indicate which of the two politicians you find to be more credible.

O Politician A

O Politician B

If competence is understood to mean the level of expertise an individual possesses, how would you rate each politician?

	Extremely incompetent	Somewhat incompetent	Neither competent nor incompetent	Somewhat competent	Extremely competent
Politician A	0	0	0	0	Ο
Politician B	0	0	0	0	Ο

If trustworthiness is understood to mean the degree of trust you have in an individual, or how honest you perceive them to be, how would you rate each politician?

	Extremely untrustworthy	Somewhat untrustworthy	Neither trustworthy nor untrustworthy	Somewhat trustworthy	Extremely trustworthy
Politician A	Ο	Ο	Ο	Ο	Ο
Politician B	0	0	0	0	0

If caring is understood to mean the degree to which an individual cares about the issues that matter to you, how would you rate each politician?

	Extremely uncaring	Somewhat uncaring	Neither caring nor uncaring	Somewhat caring	Extremely caring
Politician A	Ο	Ο	0	Ο	Ο
Politician B	0	0	0	0	0

Block 3

At this time, you are not eligible to participate in this survey. Thank you.

Powered by Qualtrics